

MICROMEDEX®
USER GUIDE

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PREFACE

CONVENTIONS USED IN THIS MANUAL

Certain standards and conventions have been employed in this user guide to communicate in the most effective manner possible. These standards have been used whenever possible.

Bold Text

Normally, bolded text is used:

- to emphasize an important concept
- *or* -
- to denote a clickable item on the user interface (for example, the directions may state: “Click the **Button Name** button...”)
- *or* -
- to specify a menu item (for example, “...from the **File > Print** menu item...”)
- to identify another Micromedex product by name

Italicized Text

Generally, italics are used to denote:

- field names on the user interface (e.g., “Type ‘digoxin’ in the *Field_Name* field”)
- an “either-or” situation (denoted: - *or* -)

window, dialog box, or page name (e.g., “the *IV Compatibility Results* page”) or a hypertext link (e.g., “the *Contact* link”)

Examples, Scenarios, Screen Captures

All examples shown or described in this guide are for training and illustration purposes only.

Printing this Guide

This user guide has been designed in book layout, to print double-sided. If you print the guide single-sided, blank pages will print. These blank pages are intentional. You are not missing any information.

Implementation Requirements

The data and software implementation described in this manual are furnished under license and may be used only in accordance with the terms of such license. See your license for all terms and conditions that apply.

CUSTOMER RESOURCE CENTER

Technical & Customer Support

The Micromedex product staff of technical and service experts has one goal - to quickly take care of your needs so that you are back to optimal performance with our solutions.

Our Customer Resource Center is available to all of our customers free of charge, and can be your single point of contact for the following services:

- Clinical Content Requests

Technical Support Requests

- Product Use Support
- Product Enhancement Requests

24/7 Phone Support

United States & Canada:

Phone: **1-877-843-6796**

Outside the United States & Canada:

Phone: **1-303-354-4100**

Email Support

Email Micromedex at ProductSupport@Merative.com

Technical support requests will be managed according to the guidelines shown below:

General Guidelines	Priority	Maximum Initial Response and Assessment
After business hours: Voice mail messages will be returned in the order they are received. Priority is assigned at that time. Email requests received outside of business hours will be assigned a priority level the following business day.	Critical Priority Multiple users cannot access or use major product functionality	Within 4 hours
	High Priority Missing or inaccurate data or functionality	Within 1 business day
	Medium Priority One user cannot access or use major product functionality	Within 2 business days
	Low Priority General questions or enhancement requests	Within 5 business days

TOTAL SUPPORT SOLUTIONS

We stand behind our products and our customers and believe that the *total* customer-experience is what differentiates us from the competition. Our Total Support Solution offers top-notch service, training, and support to ensure you are able to realize all the benefits our products offer.

As part of our total support solution we will:

- Provide flexible training opportunities, such as webinars, on-site classes, unit-to-unit specialized training, eLearning, and more, to help you and all users at your site stay current on Micromedex.
- Solve questions and issues promptly with our 24/7 technical support
- Ask you for your input on how we can continue to improve our products and services
- Make it easy to do business with us - on all fronts

Ask your Client Success Manager or Sales Executive how we can help you.

CHAPTER 1: MICROMEDEX® OVERVIEW

Designed specifically for point-of-care clinicians, the Micromedex® browser-based interface is intuitive and easy-to-use, providing quick access to evidence-based content at any point in the patient care process. Micromedex understands clinicians need common questions answered quickly and accurately to provide the best patient care possible. You can also access the same, evidence-based content directly from your mobile device(s).

With the latest release it is easier than ever to access the information you trust – when and where you need it with an updated and modernized user experience. Now you can enjoy streamlined access to essential functions and faster access to routine and frequently used features with fewer steps.

In designing the next generation of Micromedex, we listened to the needs of you, our customers. In this version we focused on key enhancements that we hope will improve your experiences with our application. The new Micromedex provides a single interface to access, search, and navigate to drug, disease, toxicology, and patient education information. This single interface ensures clinical consistency across our fortified evidence. You now have direct access to the most used drug information, such as: dosing, adverse effects, indications, and interactions. There is also direct access to other useful information such as: “drugs that treat” and “drugs that cause” when searching for a condition.

In addition, we have updated the look and feel and made it more intuitive. Fewer clicks and better searching make it easier to find the information you need fast.

Micromedex® Offers:

- Fewer clicks to get the answer you need
- No lengthy documents to scan
- Seamless searching across drug, disease, toxicology, and other content areas (without re-entering your search term)
- Spelling help

Plus, Micromedex provides enhanced summary drug information:

- Indications and Dosing – includes efficacy, strength of evidence, and strength of recommendation ratings
- Regulatory Status and Generic Availability – displayed in the summary document
- Drug Toxicity – provides information on clinical effects, treatment, and range of toxicity
- Patient Education – offers point-of-care counseling information for clinicians to use when educating patients about their medications

Evidence You Can Trust

In critical situations, Micromedex always delivers. Our unparalleled in-house editorial process references the most clinically relevant evidence available. It is aggregated, filtered, and synthesized to virtually eliminate any gaps in information. The result is information that is consistent in format, presentation, and context; and relevant, current, and uniform across the patient continuum.

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For clinical decision support, it delivers consistent, high-quality information that sets the industry standard for everyday use as well as in the most difficult situations. You get both standard-level and expanded evidence — within context — so you can get to answers quickly. Components include robust drug information the entire staff routinely uses, such as dosing and interactions, as well as the evidence that the most experienced clinicians need in difficult or unusual situations, including off-label uses and specialty populations. The at-a-glance Micromedex Rating System helps clinicians readily identify the strength of key factors needed in making treatment decisions — strength of evidence, efficacy, and recommendation. The Micromedex Rating System is the result of thousands of man-hours reviewing medical literature to provide an easy-to-use guide that supports fast, informed decision-making.

Designed for Experts Like You

Teams of on-staff experts bring real-world experience to our decision support resources. Doctors, nurses, pharmacists, and other industry professionals help create Micromedex to meet your specific needs.

Who can benefit from Micromedex®?

Point-of-care clinicians

- Quick on-the-floor access
- Intuitive workflow-based interface
- Trusted summary-level information

Pharmacists

- Facility-wide access to trusted drug information
- Improved searching and navigation

Medical Librarians

- One comprehensive resource for clinical decision support
- Consistent information throughout the entire hospital

Only Micromedex® Is:

- Evidence-based for more than 40 years
- Trusted in more than 5,000 hospitals and healthcare institutions in 83 countries
- Used for toxicology content in 100 percent of U.S. Poison Control Centers, and most centers around the world
- Integrated into nearly 2,000 provider EMR systems
- On the list of statutorily named compendia in the U.S. Medicaid program and is used to determine a “medically-accepted indication” of an off-label drug
- Used in most of the U.S. accredited Schools of Pharmacy and many more worldwide

CHAPTER 2: MICROMEDEX® HOME PAGE

Usability experts and clinical focus groups were utilized to develop the intuitive, easy-to-use Micromedex® interface. Extra care was used to ensure that users don't have to re-enter the same search over and over. It's simple to jump from a disease state to a drug, and then to the relevant patient education document, all from one search. The home page offers quick and direct access to the most important and relevant items.

With the prominently displayed *Keyword* search box that is available on every page in Micromedex you have direct access to the information you need. It also provides intelligent searching with in-line spelling suggestions.

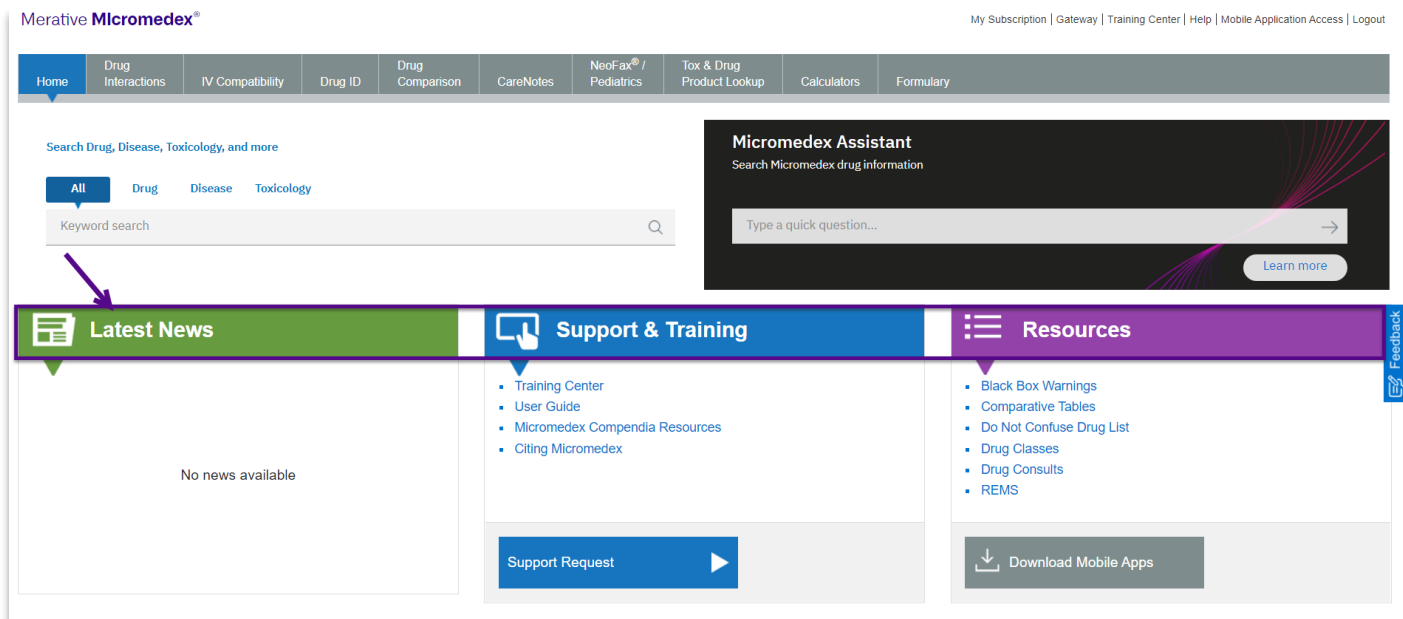
By default, you can quickly perform one search to get all the relevant results for the content to which you subscribe, or you can specify a filter option to search specifically within the drug, disease, or toxicology content, which will provide you with more targeted results.



Note: The filter is only applied when searching from the home page. For more details on searching in Micromedex see [Chapter 4: Searching Micromedex® on page 37](#).

From beneath the *Keyword* search box on the Home Page you can access: the **Latest News** from Micromedex and across the industry, **Support & Training** and other Micromedex

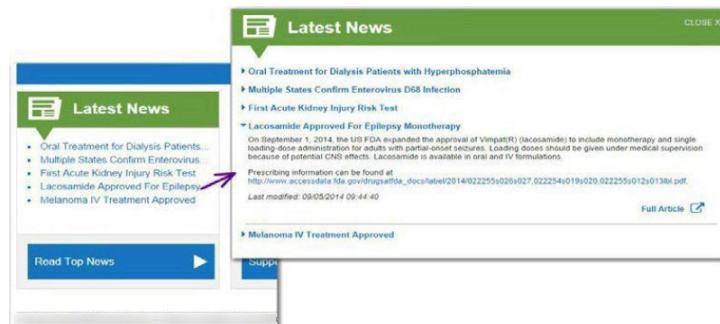
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Latest News

Late-breaking clinical news, Micromedex events, and product announcements

Stay informed with late-breaking clinical news and information about Micromedex products and events. The *Latest News* column on the Micromedex home page is intended to provide you with front-of-mind information on important topics identified by our clinical staff, keep you informed on important additions to our product-line, communicate upcoming events, and provide tips to help you utilize our tools for better patient care. Select a topic from the Latest News column to see a summary, which contains a link to the full article.



Support and Training

Help is only a click away. Access support and training for help with using Micromedex, additional services and consulting, and how to cite Micromedex content.

- **Training Center** - Learn about the powerful features and functions available in our products. Our Training center offers an extensive variety of training options, FREE OF CHARGE for you and your staff. Classes and courses are available in a variety of types and formats to offer a training
- **User Guide** - As with the User Guide link at the bottom of the page, this link opens the latest Micromedex® User Guide in Adobe® Acrobat(.pdf) format.
- **Micromedex Compendia Resources** - Micromedex compendium database displays the name of the drug in an organized manner with the off label use. Provides the information to the learners in the form of interactive training videos with increased caregivers satisfaction.
- **Citing Micromedex** - Learn how to properly cite Micromedex databases and the copyright protections that should be used.

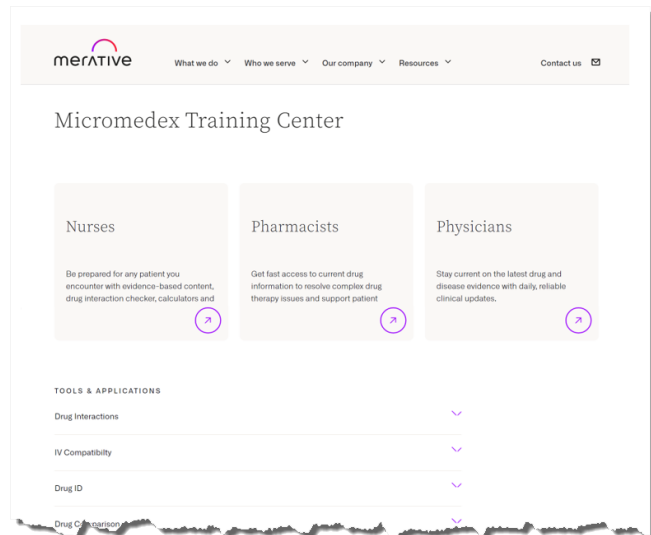
Hands On Tutorials - eLearning courses give you the flexibility to learn at your place and within your schedule with hands-on practice. These courses offer an interactive learning experience. Many courses also offer the option of audio narration.

Video Demonstrations - For the student who learns best with a brief on-demand video demonstration, this area offers overviews of major features, functions, and the tools to get the most out of your Micromedex subscription.

Web Seminars (Live and Recorded) – Offered monthly, our live training seminars give you the opportunity to speak directly to an expert as well as interact with other Micromedex customers during an online class. Recorded seminars can be attended at any time to fit your schedule.

Train the Trainer Materials - Training guides provide step-by-step script and instructions for instructors conducting training to staff.

On Site Training* - Our Education Services team members will develop a personalized presentation based on your audience and hold sessions at you

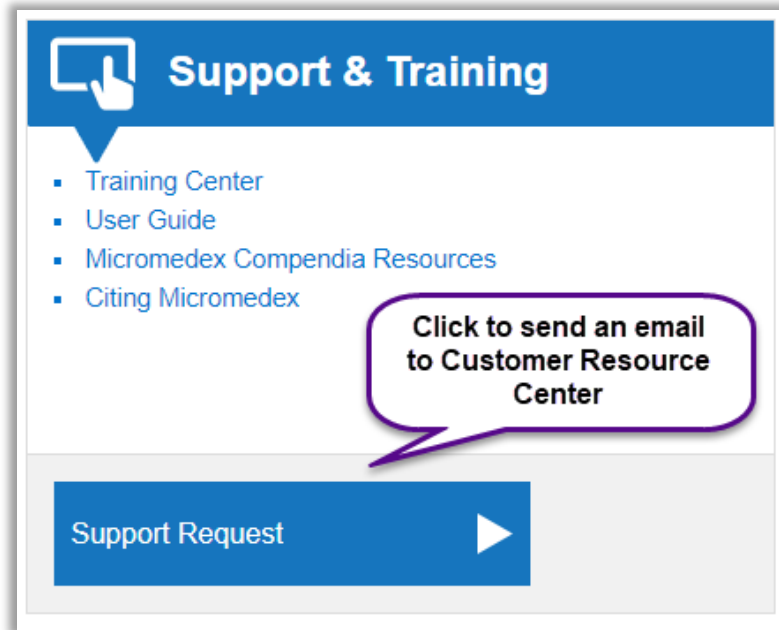


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preferred location. If customized online training is what you are looking for, we would be happy to speak with you and create a program that will fulfill your training needs exactly. Complete the Training Support form to help us create the right training solution for you and your organization.

* Travel/Consulting Fees may apply.

- **Support Request** - Do you need technical help? Do you want to submit a topic or idea to the Micromedex Editorial staff? Click the **Support Request** link (or the **Contact** link at the bottom of the page) to send an email to the Customer Resource Center.

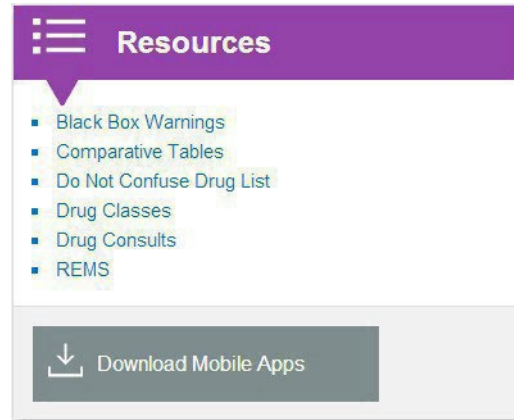


Online Support requests are handled during business hours. Most requests are responded to within one business day. Editorial content inquiries may take three to five business days depending on the complexity of the inquiry.

For urgent matters, please contact our Customer Resource Center. See ["Customer Resource Center" on page ii](#) for phone and other contact information.

Resources (Targeted Searches)

This column provides direct links to clinical information that is valuable and commonly requested. You can go straight to the information without performing a search.



- **Black Box Warnings** - This link provides an alphabetical list of all the drugs in Micromedex that have a black box warning. Use the **Jump To:** menu to display the list of drug titles beginning with a specific letter, allowing you to open directly to the black box warning topic in the associated drug information. You can also perform a search in the main *Keyword* search box to find this information. For more details see [“Black Box Warning List” on page 71](#).
- **Comparative Tables** - This link displays an alphabetical list of Drug Consults documents that contain a comparative table. Click on a title to open the Drug Consults document. You can also perform a search in the main *Keyword* search box to find this information. For more details see [“Comparative Tables” on page 72](#).
- **Do Not Confuse Drug List** - This link displays an alphabetical list of frequently confused drug names, including look-alike and sound-alike name pairs. Drug name pairs that are often confused are listed on the same line, in alphabetical order. Tall man lettering is used to further aid in discerning between common look-alike drugs. To move to a title later in the alphabet, use the **Jump To:** menu. Click any link to open the associated drug landing page. You can also perform a search in the main *Keyword* search box to find this information. For more details see [“Do Not Confuse Drug List” on page 73](#).
- **Drug Classes** - This link provides an alphabetical list of drug classes contained in Micromedex. Use the **Jump To:** links to quickly display the list of drug classes beginning with the selected letter. Click a drug class to display the drugs in the class. Click on a drug name to display the associated drug information. You can also perform a search in the main *Keyword* search box to find this information. For more details see [“Drug Classes” on page 75](#).
- **Drug Consults** - This link provides an alphabetical list of all the Drug Consult articles available in Micromedex. Click on a title to open the associated Drug Consult document or use the **Jump To:** menu to display the list of drug consults whose titles begin with the selected letter. You can also perform a search in the main *Keyword* search box to find this information. For more details see [“Drug Consults” on page 78](#).
- **REMS** - This link provides an alphabetical list of drugs with current Risk Evaluation and Mitigation Strategy (REMS) requirements. To display titles from a specific letter in the alphabet use the **Jump To:** menu. Click on the drug name link to open the

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document positioned in the REMS section. You can also perform a search in the main *Keyword* search box to find this information. For more details see [“REMS: List of Drugs With a Risk Evaluation and Mitigation Strategy” on page 79](#).

- **Download Mobile Apps** - Click this link (or the **Mobile Application Access** link at the top of the page) for information on the Micromedex mobile offerings. Much more than quick drug look-ups, *mobileMerative* Micromedex® powers your mobile device with a wealth of clinical knowledge from Micromedex, the industry's leading provider of evidence-based clinical information.

In the examination room, at the nurse's station, or in the pharmacy, with *mobile*Micromedex you take the trusted content you rely upon with you every step of the way.

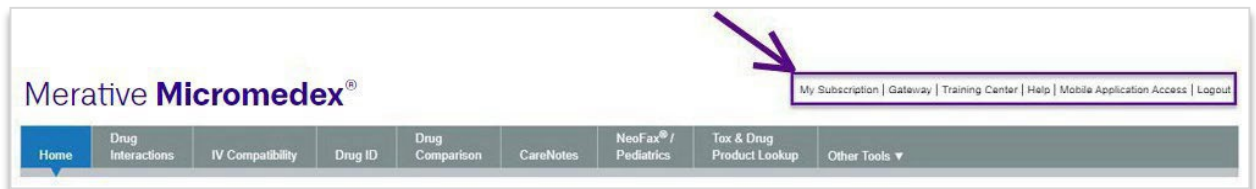
See [“Micromedex® for Mobile Devices” on page 298](#) to learn more about these exciting offers from Micromedex:

- Web-based access to Micromedex
- Apps available for download from the iTunes® App Store, Google Play®, and the Windows Store®

Other Page Elements

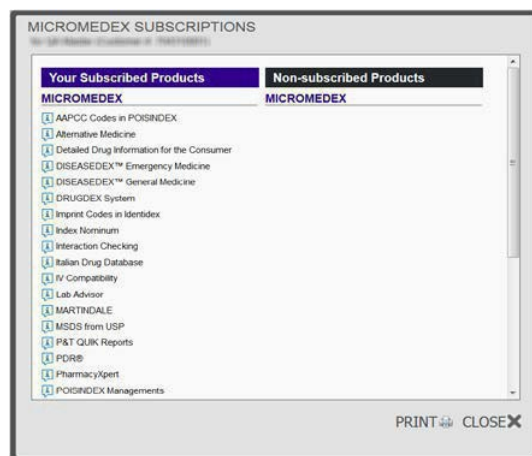
Many elements on the Micromedex interface appear throughout the application.

Header Links



My Subscription

View all of the Micromedex products to which you subscribe by clicking the **My Subscription** link. Your customer name and account number are shown near the top of the window.



Subscribed products (and external applications) are shown on the left side of the window. Products and applications to which you do not subscribe are shown on the right. Hover your mouse over the “i” icon to view a general description of the product or application.

Gateway

The **Gateway** link allows you quick access to other applications available to you from Micromedex. Click the **Gateway** link to go to the Micromedex Web Application Access page.

Training Center

Learn about the powerful features and functions available in our products. Our Training center offers an extensive variety of training options, FREE OF CHARGE for you and your staff. Classes and courses are available in a variety of types and formats to offer a training solution that meets your individual need.

Help

Help is always just a click away. Click the **Help** link to open the help application for Micromedex. Navigate to any topic by clicking on the books (chapters). Use the **Index** or **Search** tabs to search for help by a keyword.

Mobile Application Access

Click this link (or the **Download Mobile Apps** link under *Resources* on the home page) for information on the Micromedex mobile offerings. Much more than quick drug look-ups, *mobileMicromedex* powers your mobile device with a wealth of clinical knowledge from Micromedex, the industry's leading provider of evidence-based clinical information.

In the examination room, at the nurse's station, or in the pharmacy, with *mobileMicromedex* you take the trusted content you rely upon with you every step of the way.

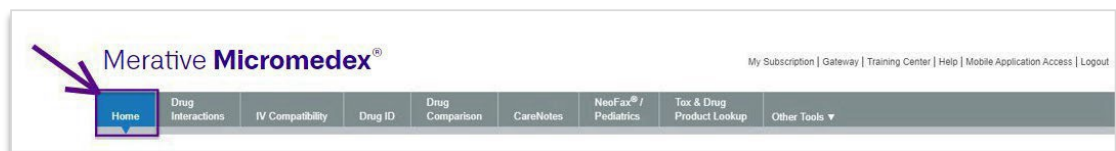
See [“Micromedex® for Mobile Devices” on page 298](#) to learn more about these exciting offers from Micromedex:

- Web-based access to Micromedex
- Apps available for download from the iTunes® App Store, Google Play®, and the Windows Store®

Logout

It is good practice to log out of the Micromedex application when you are away from the workstation for an extended period of time. Use the **Logout** link to close your session.

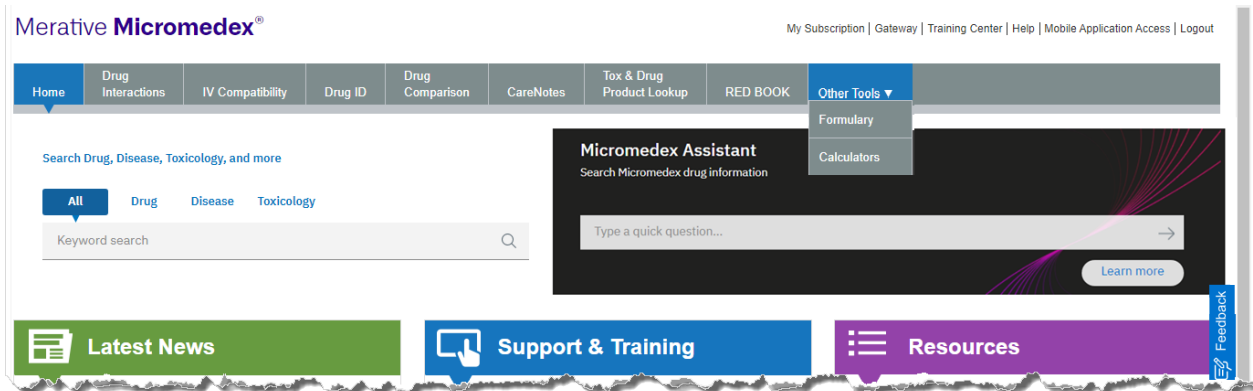
Home Button



Click on the **Home** button from any page to return to the Micromedex home page.

Tools and Additional Applications

To the right of the Home button on every page in Micromedex are links to tools and additional Micromedex applications. The most frequently used tools are shown on the toolbar. Depending on your subscription, the tool you want may be visible or it may be in the Other Tools drop-down menu.



- **Drug Interactions** - allows you to check for interacting drug ingredients, their effects, and their clinical significance. Interaction information can be displayed for a single drug or between multiple drugs.
- **IV Compatibility** - provides easy access to proven Trissel's 2 data to assist with accurate IV compatibility decisions
- **Drug ID** – finds drugs based on their imprint code or physical description
- **Tox & Drug Product Lookup** - to find product, manufacturer contact, and related toxicologic management information on: drugs, commercial/household products and chemicals, plants and animals, and slang terms/street names for drugs or substances
- **Drug Comparison** - provides a side-by-side drug information comparison
- **Calculators** - includes: antidote dosing and nomograms calculators, dosing tools, clinical calculators, laboratory values and measurement calculators

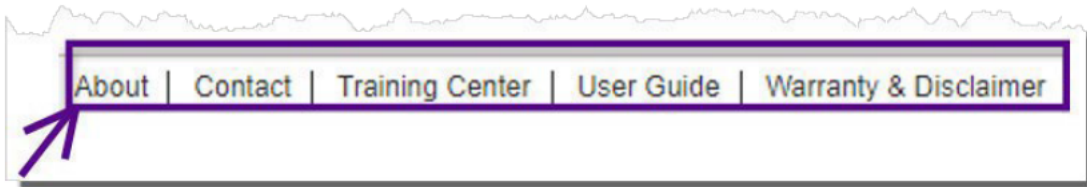
All of these tools provide features and functions not found within the main search in Micromedex*.

The additional applications that are available from within Micromedex are: Micromedex® Formulary, Micromedex® CareNotes, Micromedex® RED BOOK®, and Micromedex® NeoFax® and Pediatrics. These links allow you to launch the application and continue your work.

Note: *Single drug interactions and single IV compatibility information is also available from the Quick Answers tab on a drug landing page.

Page Footer Links

At the bottom of every page in Micromedex are links to the following information:



About

Click this link to open a page with information about Micromedex.

Contact

Do you need technical help? Do you want to submit a topic or idea to the Micromedex Editorial staff? Click this link (or the **Support Request** link under *Support & Training* on the home page) to send an email the Customer Resource Center.

This link opens an online support request form. Use this form for:

- Non-urgent requests for Technical Support
- Submission ideas (e.g., topic or content suggestions)
- Password reset requests
- Training requests

Online Support requests are handled during business hours. Most requests are responded to within one business day. Editorial content inquiries may take three to five business days depending on the complexity of the inquiry.

For urgent matters, please contact our Customer Resource Center. See [“Customer Resource Center” on page ii](#) for phone and other contact information.

User Guide

As with the **User Guide** link under *Support & Training* on the home page, this link opens the latest Micromedex® User Guide in Adobe® Acrobat (.pdf) format.

Warranty & Disclaimer

This link opens a page on warranty and disclaimer information for our products.

Micromedex Feedback

The moment you land into the **Home Search** page of **Micromedex®** you can locate the **Feedback** icon on the right-hand side of the webpage. If you wish to provide feedback, you can click on this icon. The submitted feedback will be shared with the Micromedex team.

Submitting Feedback is easy.

- Select the appropriate Reason for Feedback
- Fill in the open box with what you'd like to share with the Micromedex team

Tell us about your experience ×

Reason for feedback

Choose an option ▼

- Content
- Technical
- Other

Close Submit

Tell us about your experience ✕

Reason for feedback

Other ▼

Share your feedback with us 0/1500

Your comments will help us to improve this experience. Do not include any personal information in the feedback.

Screen captured

[Close](#) [Submit](#)

When you have completed the feedback, click on **Submit** button to share your feedback. Feedback will be reviewed by the Micromedex Solutions team.

Note:

1. Text field (Your search) is limited to 200 characters maximum.
2. Share your feedback with us text area is limited to 1500 characters maximum.
3. Screen capture has been disabled if PHI may be present, or if screen capture content area is too large.
4. The Feedback module will be available only for Online Internet users and not to the Offline (THIAS) Intranet users.

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CHAPTER 3: MICROMEDEX® WITH MICROMEDEX ASSISTANT

Micromedex Assistant uses cognitive computing in the Micromedex cloud to gather search intents through conversation, provide specific clinical answers, and guide clinicians to relevant evidence.

HOW MICROMEDEX WITH MICROMEDEX ASSISTANT WORKS

Ask questions the way clinicians ask clinicians. The more specific the question, the more specific the answer. Examples:

- What's the adult dose of lisinopril for hypertension?
- What are the approved uses for pristiq?
- What are the adverse effects of digoxin?
- Can cefazolin be given IV push?
- How fast can Daptomycin be given?

MICROMEDEX WITH MICROMEDEX ASSISTANT UNDERSTANDS

Micromedex Assistant can answer many drug information questions. The system learns from interaction with users and will be able to answer more sophisticated questions over time. For now, answers are limited to:

- **Drug Information** (e.g. Drug Classes, Dosing, Administration, Medication Safety, mechanism of Action, Pharmacokinetics, About)
- **Drug Interactions**
- **IV compatibility**

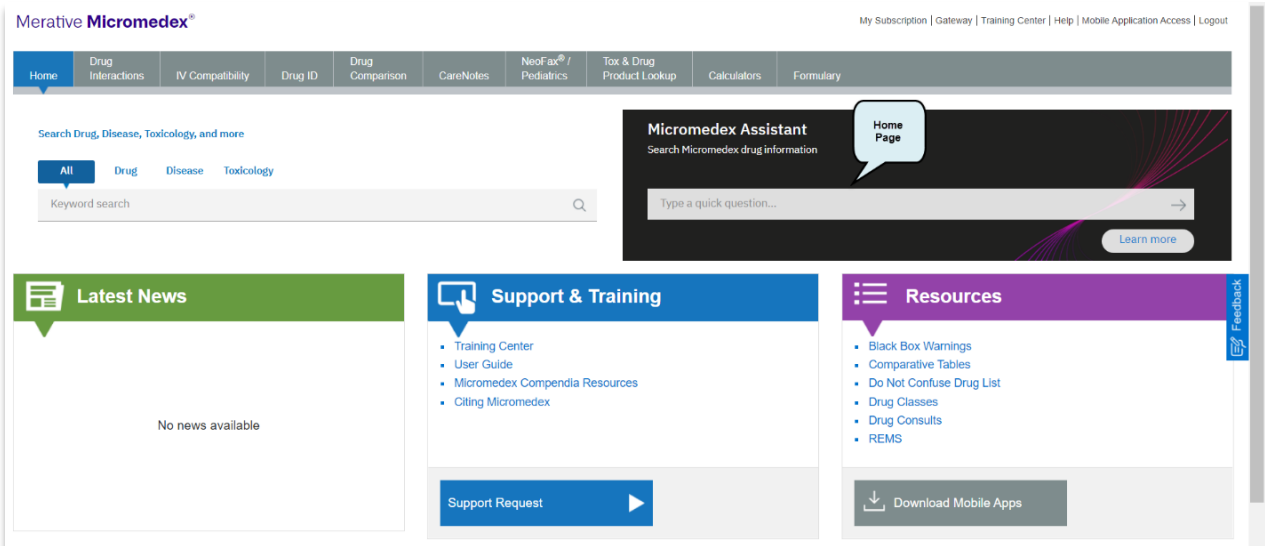
For the latest updates on Micromedex with Micromedex Assistant, on the Home Page, select the **Learn More** hyperlink.



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How to use Micromedex with Micromedex Assistant

The *Micromedex Assistant* search box is available on every page in Micromedex. On the *Home Page* it is prominently displayed below the toolbar. On all other pages it is located in the lower right of the page.

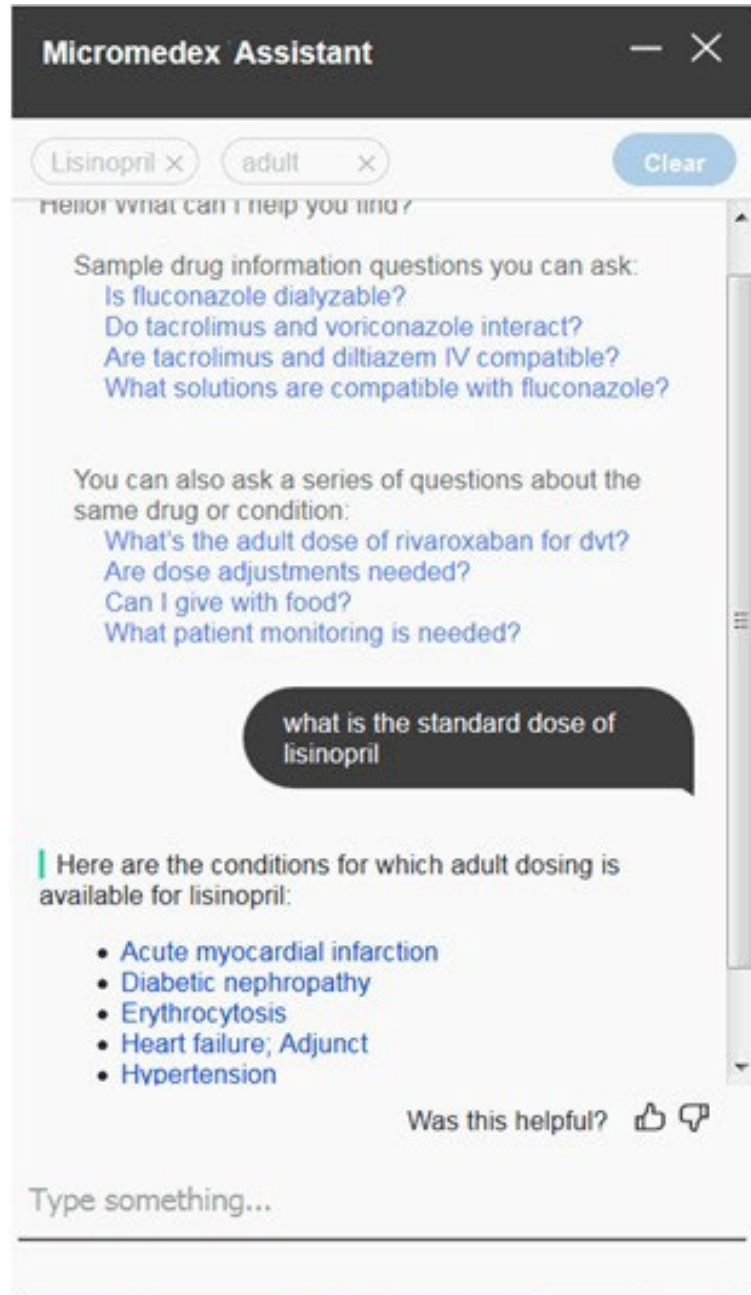


While on the home page, simply enter your question and select the arrow to the right of your question. When on all pages other than the home page, select the Micromedex Assistant box on the lower right of the page, and the *Micromedex Assistant* window will appear.

For an example, if you ask Micromedex Assistant



Micromedex will respond with a question to obtain more details to properly answer your question.



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You will then respond with the condition for which you are looking, in this case HTN. You can either select hypertension or type in HTN in the Type something section in the bottom and hit enter on your keyboard.

Micromedex Assistant [Close]

Lisinopril [X] adult [X] [Clear]

Hello! What can I help you find?

Sample drug information questions you can ask:

- Is fluconazole dialyzable?
- Do tacrolimus and voriconazole interact?
- Are tacrolimus and diltiazem IV compatible?
- What solutions are compatible with fluconazole?

You can also ask a series of questions about the same drug or condition:

- What's the adult dose of rivaroxaban for dvt?
- Are dose adjustments needed?
- Can I give with food?
- What patient monitoring is needed?

what is the standard dose of lisinopril

Here are the conditions for which adult dosing is available for lisinopril:

- Acute myocardial infarction
- Diabetic nephropathy
- Erythrocytosis
- Heart failure; Adjunct
- Hypertension

Was this helpful? [Thumbs Up] [Thumbs Down]

htn

Once Micromedex is told that the condition is hypertension, Micromedex will provide you with a thorough answer based upon your responses to Micromedex Assistant follow up questions. By default, the dosage will be delivered as an adult. To see pediatric, simply type in pediatric in the Type something area and hit enter on your keyboard.

The screenshot shows the Micromedex Assistant interface. At the top, the title "Micromedex Assistant" is displayed with a close button. Below the title, there are three search filters: "Lisinopril", "Hypert...", and "adult", each with a close button. A "Clear" button is also present. The main content area displays a list of conditions: Diabetic nephropathy, Erythrocytosis, Heart failure, Adjunct, Hypertension, Kidney disease, Nondiabetic, and Migraine, Prophylaxis. A chat bubble labeled "htn" is visible. Below the list, a message states: "Here is the adult dosing for lisinopril:". Under the heading "Hypertension", there are two bullet points: "Initial, 10 mg orally once daily; maintenance, 20 to 40 mg orally once daily; MAX 80 mg/day however higher doses do not appear to provide additional benefit; with a diuretic, initial dose 5 mg once daily (FDA dosage)" and "Initial, 10 mg orally once daily; titrate to target dose of 40 mg/day (guideline dosage)". Two buttons are shown: "Quick Answers Adult Dosing for Lisinopril" and "In-Depth Answers Adult Dosing for Lisinopril". At the bottom, there is a feedback prompt "Was this helpful?" with thumbs up and down icons, and a text input field labeled "Type something...".

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For additional information on adult dosing for Lisinopril, select the **Quick Answers Adult Dosing for Lisinopril** or **In-Depth Answers Adult Dosing for Lisinopril** link.

Here is the adult dosing for lisinopril:

Hypertension

- Initial, 10 mg orally once daily; maintenance, 20 to 40 mg orally once daily; MAX 80 mg/day however higher doses do not appear to provide additional benefit; with a diuretic, initial dose 5 mg once daily (FDA dosage)
- Initial, 10 mg orally once daily; titrate to target dose of 40 mg/day (guideline dosage)

Quick Answers Adult Dosing for Lisinopril

In-Depth Answers Adult Dosing for Lisinopril

Was this helpful?

Once one of the **Quick Answers** or **In-Depth Answers** link is selected, you will be brought to that page in Micromedex.

Lisinopril

Drug Classes: ACE Inhibitor | Antihypertensive | All

Routes: Oral

Quick Answers | In-Depth Answers | All Results

Dosing/Administration

Adult Dosing

Pediatric Dosing

FDA Uses

Non-FDA Uses

Dose Adjustments

Administration

Comparative Efficacy

Place In Therapy

Medication Safety

Contraindications

Precautions

Adverse Effects

Black Box Warning

REMS

Drug Interactions (single)

IV Compatibility (single)

Pregnancy & Lactation

Dosing/Administration

Adult Dosing

See 'In-Depth Answers' for detailed results.

Acute myocardial infarction

- 5 mg orally once daily for 2 days within 24 hours of acute myocardial infarction, then 10 mg orally once daily [4][5]
- Initial, 2.5 to 5 mg orally daily, titrate up to 10 mg orally daily or higher as tolerated (guideline dosage)

Diabetic nephropathy

- 10 to 40 mg/day orally (off-label dosage) [7][8]

Erythrocytosis

- 5 to 10 mg/day orally, the average dosage was 9.25 mg/day (off-label dosage) [9]

Heart failure; Adjunct

- Initial, 5 mg orally once daily in combination with diuretic and (usually) digitals, increase as tolerated (FDA dosage) [4][5]
- Stage C reduced ejection fraction heart failure: Initial, 2.5 to 5 mg orally once daily; titrate gradually to target dose of 10 mg orally once daily. A mean daily dose of 32.5 to 35 mg was achieved in clinical trials. Avoid abrupt discontinuation.

Hypertension

Micromedex Assistant

Lisinopril x Hyperten... x adult x Clear

- Acute myocardial infarction
- Diabetic nephropathy
- Erythrocytosis
- Heart failure; Adjunct
- Hypertension
- Kidney disease, Nondiabetic
- Migraine: Prophylaxis

htn

Here is the adult dosing for lisinopril:

Hypertension

- Initial, 10 mg orally once daily, maintenance, 20 to 40 mg orally once daily, MAX 80 mg/day however higher doses do not appear to provide additional benefit, with a diuretic, initial dose 5 mg once daily (FDA dosage)
- Initial, 10 mg orally once daily, titrate to target dose of 40 mg/day (guideline dosage)

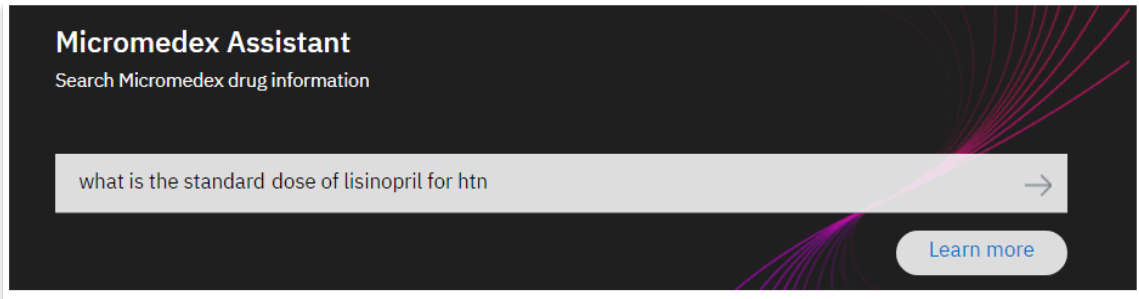
Quick Answers: Adult Dosing for Lisinopril

In-Depth Answers: Adult Dosing for Lisinopril

Was this helpful?

Type something...

You can also ask Micromedex more complex questions, such as putting all of the context into one question.



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Micromedex will provide you with the same answer as the previous example.

The screenshot shows the Micromedex Assistant interface. At the top, the title "Micromedex Assistant" is displayed in a dark header bar. Below the header, there are three search filters: "Lisinopril", "Hypert...", and "adult", each with a close button (X). A "Clear" button is also present. The main content area contains a list of suggested questions: "What's the adult dose of rivaroxaban for dvt?", "Are dose adjustments needed?", "Can I give with food?", and "What patient monitoring is needed?". A dark speech bubble contains the user's query: "What is the standard dose of lisinopril for htn". Below this, the response begins with "Here is the adult dosing for lisinopril:" followed by a section titled "Hypertension". This section contains two bullet points detailing dosing regimens. At the bottom of the response area, there are two teal buttons: "Quick Answers Adult Dosing for Lisinopril" and "In-Depth Answers Adult Dosing for Lisinopril". A feedback prompt "Was this helpful?" with thumbs up and down icons is located below the buttons. At the very bottom, there is a text input field with the placeholder "Type something..."

Micromedex Assistant

Lisinopril X Hypert... X adult X Clear

You can also ask a series of questions about the same drug or condition:

- What's the adult dose of rivaroxaban for dvt?
- Are dose adjustments needed?
- Can I give with food?
- What patient monitoring is needed?

What is the standard dose of lisinopril for htn

Here is the adult dosing for lisinopril:

Hypertension

- Initial, 10 mg orally once daily; maintenance, 20 to 40 mg orally once daily; MAX 80 mg/day however higher doses do not appear to provide additional benefit; with a diuretic, initial dose 5 mg once daily (FDA dosage)
- Initial, 10 mg orally once daily; titrate to target dose of 40 mg/day (guideline dosage)

Quick Answers Adult Dosing for Lisinopril

In-Depth Answers Adult Dosing for Lisinopril

Was this helpful?

Type something...

Just below the Micromedex Assistant banner, you will notice the terms in which you had searched for **Lisinopril**, **Hypertension**, **Adult**, and a blue button that states **Clear**. If you select the X next to one of the terms you have searched, it will allow you to update the question in which you had asked Micromedex.

The screenshot shows the Micromedex Assistant interface. At the top, there is a dark header with the text "Micromedex Assistant" and a close button (X). Below the header, there is a search bar containing three filters: "Lisinopril X", "Hypert... X", and "adult X". A blue "Clear" button is located to the right of the filters. A purple box highlights the filters, and a purple arrow points to the "X" next to "adult". Below the search bar, there is a text prompt: "You can also ask a series of questions about the same drug or condition:" followed by four blue links: "What's the adult dose of rivaroxaban for dvt?", "Are dose adjustments needed?", "Can I give with food?", and "What patient monitoring is needed?". Below this, there is a dark speech bubble containing the question: "What is the standard dose of lisinopril for htn". Underneath the speech bubble, there is a vertical bar and the text: "Here is the adult dosing for lisinopril:". This is followed by a section header "Hypertension" and a bulleted list of dosing information. At the bottom of the list, there are two teal buttons: "Quick Answers Adult Dosing for Lisinopril" and "In-Depth Answers Adult Dosing for Lisinopril". Below the buttons, there is a feedback prompt: "Was this helpful?" with thumbs up and thumbs down icons. At the very bottom, there is a text input field with the placeholder "Type something...".

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You will select the **X** next to the **Adult** search term, and Micromedex will clear the **Adult** from your search list. You will then just enter **Pediatric** in the Type Something..... area and hit enter on the keyboard.

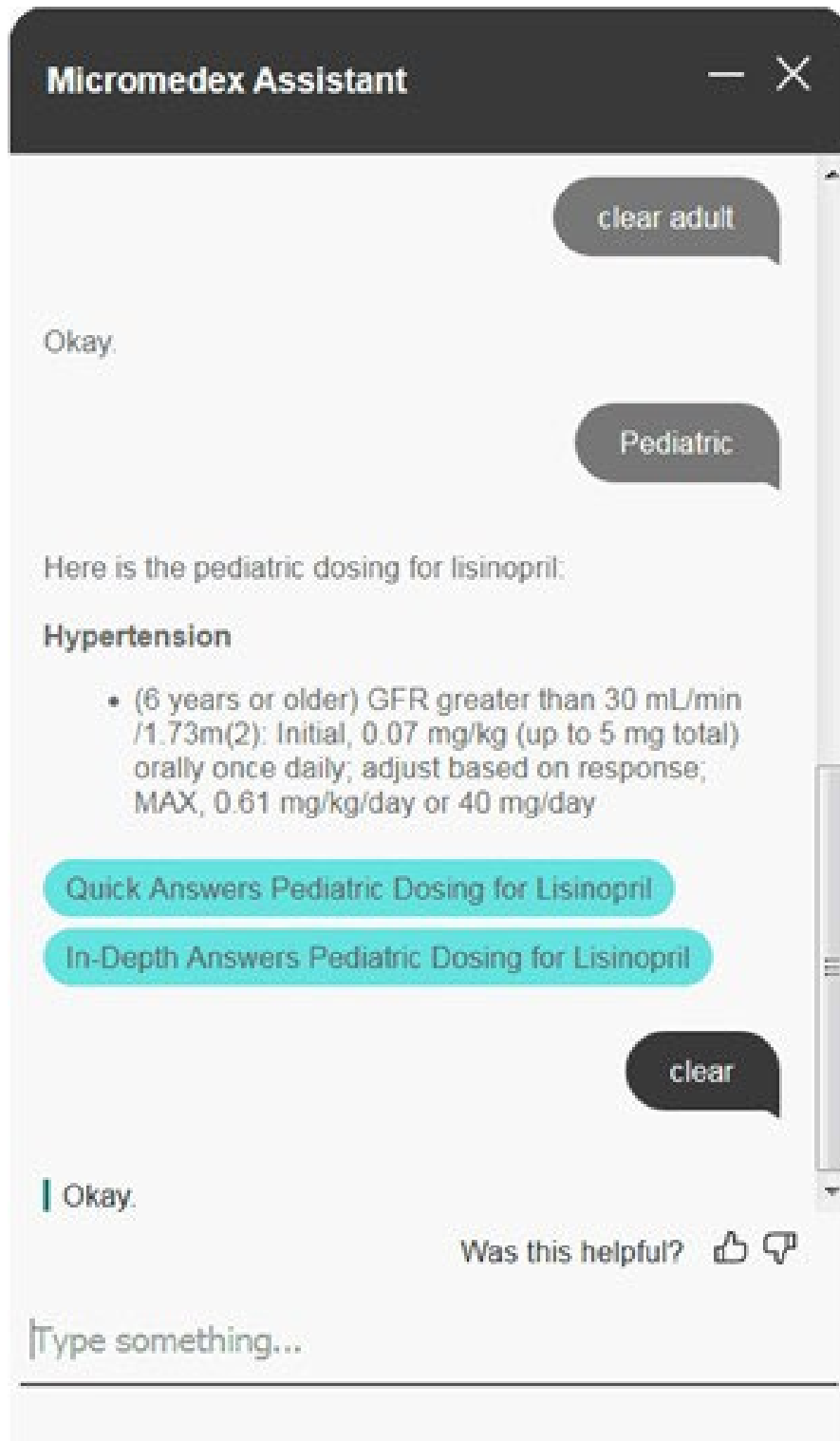
The screenshot shows the Micromedex Assistant interface. At the top, the title bar reads "Micromedex Assistant" with a close button (X) on the right. Below the title bar, there are two search filters: "Lisinopril" and "Hypert...", each with an "X" to remove it. A "Clear" button is located to the right of these filters. The main content area displays a question in a speech bubble: "What is the standard dose of lisinopril for htn". Below this, the response states: "Here is the adult dosing for lisinopril:" followed by a section header "Hypertension". Under "Hypertension", there are two bullet points: "Initial, 10 mg orally once daily, maintenance, 20 to 40 mg orally once daily; MAX 80 mg/day however higher doses do not appear to provide additional benefit; with a diuretic, initial dose 5 mg once daily (FDA dosage)" and "Initial, 10 mg orally once daily, titrate to target dose of 40 mg/day (guideline dosage)". Below the text are two teal buttons: "Quick Answers Adult Dosing for Lisinopril" and "In-Depth Answers Adult Dosing for Lisinopril". At the bottom right of the content area is a dark button labeled "clear adult". Below the content area, there is a response "Okay." and a feedback prompt "Was this helpful?" with thumbs up and thumbs down icons. At the very bottom is a text input field labeled "Type something..." with a horizontal line below it.

Micromedex Assistant will now display the pediatric dosing of lisinopril for hypertension.

The screenshot shows the Micromedex Assistant interface. At the top, the title "Micromedex Assistant" is displayed in a dark header bar. Below the header, there are three search filters: "Lisinopril", "Hypert...", and "pediatric", each with a close button (X). A "Clear" button is also present. The main content area shows a chat history with two messages: "clear adult" and "Pediatric". The assistant's response begins with "Okay." followed by "Here is the pediatric dosing for lisinopril:". Below this, the section "Hypertension" is highlighted, containing a bullet point: "(6 years or older) GFR greater than 30 mL/min /1.73m(2): Initial, 0.07 mg/kg (up to 5 mg total) orally once daily; adjust based on response; MAX, 0.61 mg/kg/day or 40 mg/day". At the bottom of the chat area, there are two buttons: "Quick Answers Pediatric Dosing for Lisinopril" and "In-Depth Answers Pediatric Dosing for Lisinopril". Below the chat area, there is a feedback prompt "Was this helpful?" with thumbs up and thumbs down icons. At the very bottom, there is a text input field with the placeholder "Type something..." and a horizontal line below it.

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To clear all the search terms from your search history and to begin a new search, you simply select the blue button titled **Clear**.



Micromedex Assistant will also adapt if you choose to switch a topic on your initial search. If you meant to choose Pediatric after reviewing your records instead of Adult, simply type in Pediatric to the Type Something section.

Micromedex Assistant

Lisinopril × Hypert... × adult × Clear

You can also ask a series of questions about the same drug or condition:
[What's the adult dose of rivaroxaban for dvt?](#)
[Are dose adjustments needed?](#)
[Can I give with food?](#)
[What patient monitoring is needed?](#)

What is the standard dose of lisinopril for htn

Here is the adult dosing for lisinopril:

Hypertension

- Initial, 10 mg orally once daily; maintenance, 20 to 40 mg orally once daily; MAX 80 mg/day however higher doses do not appear to provide additional benefit; with a diuretic, initial dose 5 mg once daily (FDA dosage)
- Initial, 10 mg orally once daily; titrate to target dose of 40 mg/day (guideline dosage)

Quick Answers Adult Dosing for Lisinopril

In-Depth Answers Adult Dosing for Lisinopril

Was this helpful?

Pediatric

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Micromedex Assistant will clear the Adult topic and answer your question with the answer for Pediatric.

Micromedex Assistant

Lisinopril × Hypert... × pediatric × Clear

however higher doses do not appear to provide additional benefit; with a diuretic, initial dose 5 mg once daily (FDA dosage)

- Initial, 10 mg orally once daily; titrate to target dose of 40 mg/day (guideline dosage)

Quick Answers Adult Dosing for Lisinopril

In-Depth Answers Adult Dosing for Lisinopril

Pediatric

Here is the pediatric dosing for lisinopril:

Hypertension

- (6 years or older) GFR greater than 30 mL/min /1.73m²: Initial, 0.07 mg/kg (up to 5 mg total) orally once daily; adjust based on response; MAX, 0.61 mg/kg/day or 40 mg/day

Quick Answers Pediatric Dosing for Lisinopril

In-Depth Answers Pediatric Dosing for Lisinopril

Was this helpful?

Type something...

Drug Interactions and Micromedex Assistant

Micromedex Assistant can be used for a drug interaction question with two drug names, and a summary of the interaction between the two drugs is displayed.



The Micromedex Assistant response for a Drug-Drug Interaction summary will include:

1. Severity
2. Warning
3. Clinical Management
4. Onset
5. Documentation
6. Micromedex Assistant's response will also include a link to the Drug Interactions page, and maintain the context of the drug names that were included in the original question.

Micromedex Assistant — ×

Tacrolimus × Voricona... × Clear

Do tacrolimus and voriconazole interact?

Here is the drug-drug interaction between tacrolimus and voriconazole:

Severity: S **Major**

Warning:
Concurrent use of TACROLIMUS and VORICONAZOLE may result in increased tacrolimus exposure and increased risk of QT-interval prolongation.

Clinical Management:
Concomitant use of voriconazole and tacrolimus may result in increased tacrolimus exposure and additive QT prolongation (Prod Info PROGRAF(R) oral capsules, intravenous injection, 2012). When initiating therapy with voriconazole in patients already receiving tacrolimus, it is recommended that the tacrolimus dose be reduced to one-third of the original dose and followed with frequent monitoring of the tacrolimus blood levels. When voriconazole is discontinued, tacrolimus levels should be carefully monitored and the dose increased as necessary (Prod Info VFEND(R) IV injection, oral tablets, suspension, 2008). Do not coadminister tacrolimus and voriconazole unless the tacrolimus dose is adjusted, tacrolimus whole blood trough concentrations are closely monitored, and tacrolimus-induced adverse effects and QT prolongation are monitored (Prod Info PROGRAF(R) oral capsules, intravenous injection, 2012).

Onset: Not Specified

Documentation: Excellent

Drug Interactions

Was this helpful? 👍 🗨

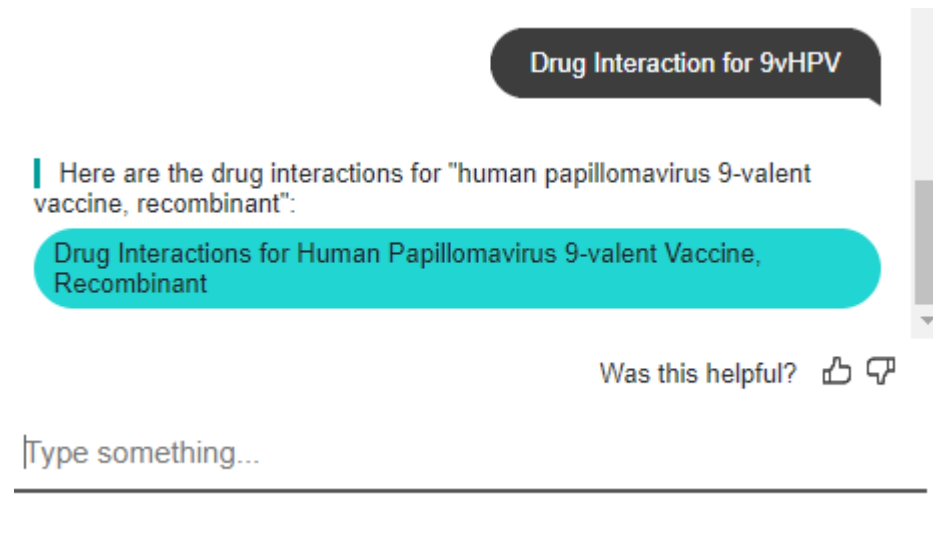
Type something...

On Selecting the Drug Interaction Link, user will be directed to the Drug Interaction Results Page.

If a question has two drugs and a drug-drug interaction is not available, but individual drugs has another interaction (e.g. drug-pregnancy) the message below is displayed, and Micromedex Assistant will also respond with a link to the Drug Interactions page. Upon selecting the Drug Interaction Link, users will be directed to the Drug Interaction Results Page.

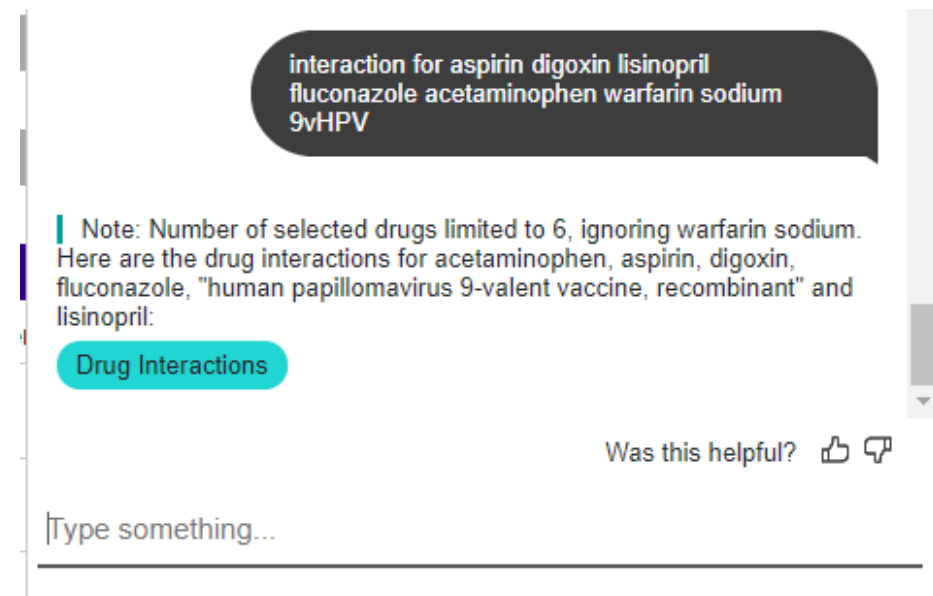
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If a question has been with a single drug or more than two drugs (up to 6 drugs) Micromedex Assistant will respond with a link to the Drug Interactions page.



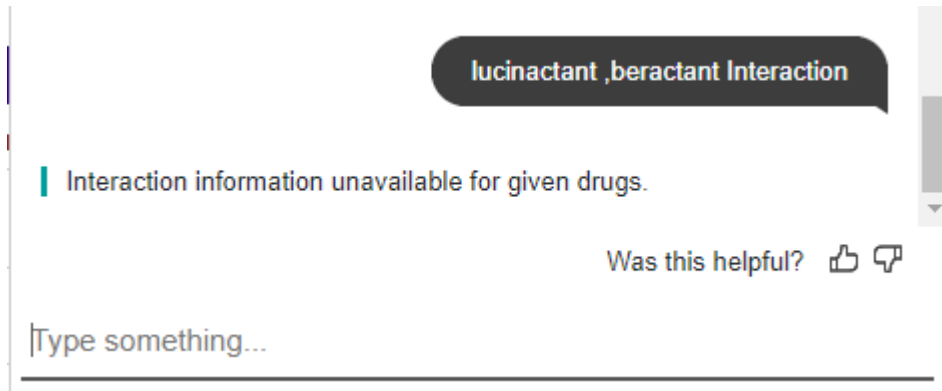
The screenshot shows a chat interface. At the top, a dark grey speech bubble contains the text "Drug Interaction for 9vHPV". Below it, a blue vertical bar is followed by the text "Here are the drug interactions for 'human papillomavirus 9-valent vaccine, recombinant':". A teal rounded rectangle contains the text "Drug Interactions for Human Papillomavirus 9-valent Vaccine, Recombinant". At the bottom right, there is a "Was this helpful?" prompt with thumbs up and down icons. Below the chat area is a text input field with the placeholder text "[Type something...]" and a horizontal line below it.

If a question has more than six (6) drugs the following message will be displayed with Drug Interaction link for only six drugs (the first six in alphabetical order)



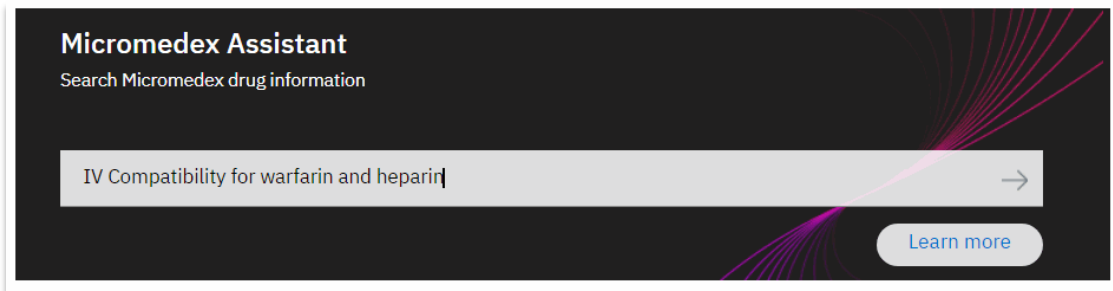
The screenshot shows a chat interface. At the top, a dark grey speech bubble contains the text "interaction for aspirin digoxin lisinopril fluconazole acetaminophen warfarin sodium 9vHPV". Below it, a blue vertical bar is followed by the text "Note: Number of selected drugs limited to 6, ignoring warfarin sodium. Here are the drug interactions for acetaminophen, aspirin, digoxin, fluconazole, 'human papillomavirus 9-valent vaccine, recombinant' and lisinopril:". A teal rounded rectangle contains the text "Drug Interactions". At the bottom right, there is a "Was this helpful?" prompt with thumbs up and down icons. Below the chat area is a text input field with the placeholder text "[Type something...]" and a horizontal line below it.

If a submitted question includes a drug interaction question for a drug that has no interaction details, the following message is displayed.



IV Compatibility and Micromedex Assistant

Micromedex Assistant works very similar for IV Compatibility as Drug Information and Drug Interactions. Simply ask Micromedex Assistant an IV Compatibility question.



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Micromedex Assistant will respond with a link to the **IV Compatibility Results** page.

The screenshot shows a chat window titled "Micromedex Assistant" with a close button. At the top, there are two search filters: "Hepari..." and "Warfari...", each with a close button, and a "Clear" button. The chat content includes a greeting, sample questions, a list of questions about rivaroxaban, a user query about IV compatibility for warfarin and heparin, and a response with a link to "IV Compatibility". At the bottom, there is a "Was this helpful?" prompt with thumbs up/down icons and a text input field labeled "Type something...".

Micromedex Assistant

Hepari... × Warfari... × Clear

Hello! What can I help you find?

Sample drug information questions you can ask:

- [Is fluconazole dialyzable?](#)
- [Do tacrolimus and voriconazole interact?](#)
- [Are tacrolimus and diltiazem IV compatible?](#)
- [What solutions are compatible with fluconazole?](#)

You can also ask a series of questions about the same drug or condition:

- [What's the adult dose of rivaroxaban for dvt?](#)
- [Are dose adjustments needed?](#)
- [Can I give with food?](#)
- [What patient monitoring is needed?](#)

IV Compatibility for warfarin and heparin

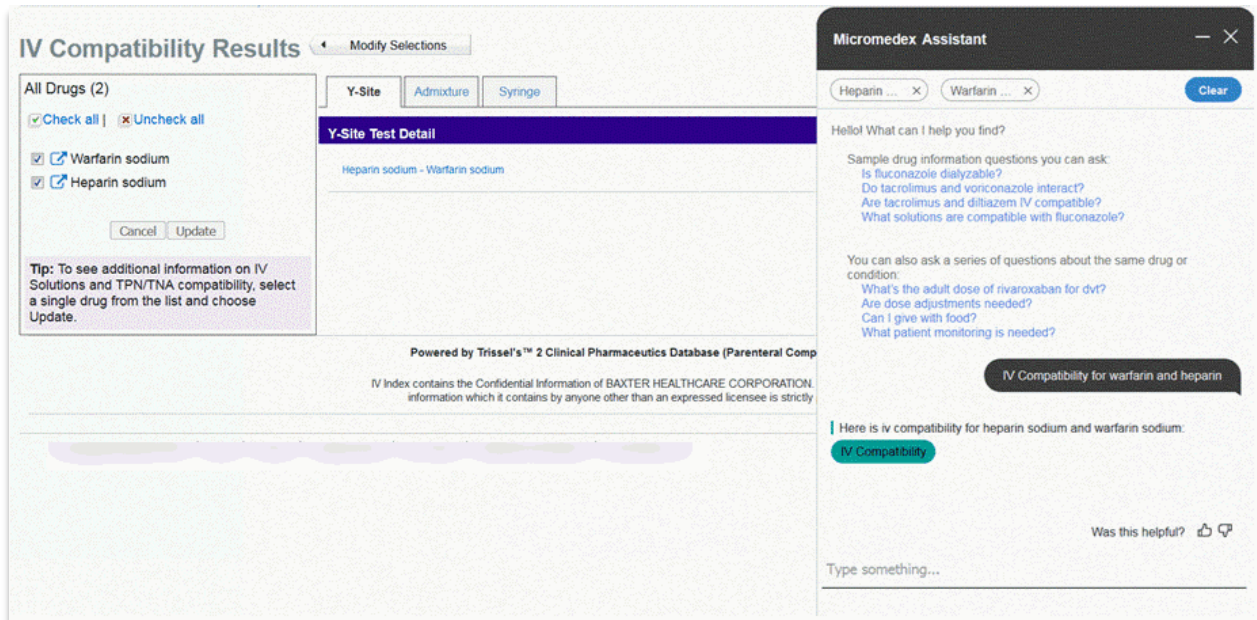
Here is iv compatibility for heparin sodium and warfarin sodium:

[IV Compatibility](#)

Was this helpful? 👍 👎

Type something...

Select the **IV Compatibility** link is selected, you will be brought to **IV Compatibility Results** page.



If you ask IV Compatibility questions for a drug that has no IV, the following message will be displayed:

IV Compatibility for aspirin, lisinopril, warfarin and heparin

I did not find iv compatibility for aspirin and lisinopril. Here are the iv compatibility for heparin sodium and warfarin sodium:

IV Compatibility

Micromedex Assistant Feedback

With every Micromedex Assistant question you ask, you have the ability to help Micromedex improve the Micromedex Assistant functionality. If you are satisfied with the response provided by Micromedex Assistant, select the **thumbs up** icon. If you are dissatisfied with the response provided by Micromedex Assistant, select the **thumbs down** icon.

The screenshot shows a user interface for Micromedex Assistant. At the top, it says "Here is the adult dosing for lisinopril:". Below this, the heading "Hypertension" is followed by two bullet points: "Initial, 10 mg orally once daily; maintenance, 20 to 40 mg orally once daily; MAX 80 mg/day however higher doses do not appear to provide additional benefit; with a diuretic, initial dose 5 mg once daily (FDA dosage)" and "Initial, 10 mg orally once daily; titrate to target dose of 40 mg/day (guideline dosage)". Below the text are two teal buttons: "Quick Answers Adult Dosing for Lisinopril" and "In-Depth Answers Adult Dosing for Lisinopril". At the bottom right, there is a feedback prompt "Was this helpful?" with thumbs up and thumbs down icons. A purple arrow points from the text area down to the thumbs down icon, and a purple box highlights the feedback prompt.

If you chose the thumbs down icon, will display the following message. Please kindly type in a response and hit enter on your keyboard. This feedback is very valuable to Micromedex as we strive to improve our product.

The screenshot shows a feedback message: "I'm sorry I am not able to answer your question. You asked 'what is the standard adult dose of lisinopril for htn.' Can you tell me what information you were expecting?". Below the message is a feedback prompt "Was this helpful?" with thumbs up and thumbs down icons. At the bottom, there is a text input field with the placeholder text "Type something...".

CHAPTER 4: SEARCHING MICROMEDEX®

This chapter describes search techniques that can be used in Micromedex® for all types of content. For more details on the content, see the following chapters:

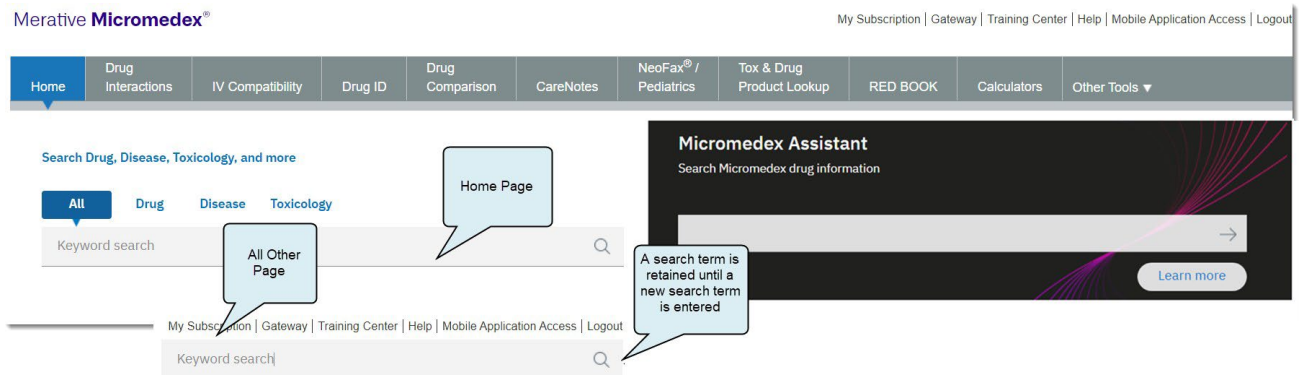
- [Chapter 5: Drug Information on page 87](#)
- [Chapter 6: Disease Information on page 123](#)
- [Chapter 7: Toxicology Information on page 135](#)
- [Chapter 8: Alternative Medicine Information on page 145](#)
- [Chapter 10: Lab Information on page 159](#)
- [Chapter 9: Reproductive Risk Information on page 157](#)

SEARCHING BASICS

Micromedex makes finding answers as simple as a single query. The smart search functionality includes a single search box on every page so you can perform searches and have results displayed on a single page. By default, you can quickly perform one search to get all the relevant results for the content to which you subscribe, or you can specify a filter option to search specifically within the drug, disease, or toxicology content, which will provide you with more targeted results.

The *Keyword* search box is available on every page in Micromedex. On the *Home Page* it is prominently displayed below the toolbar. On all other pages it is located in the upper right of the page.

Search Term Retention - When you enter a search term it stays in the *Keyword* search box until you enter another term or until you select a tool from the toolbar. This helps to give context to search results as you navigate through subsequent pages.

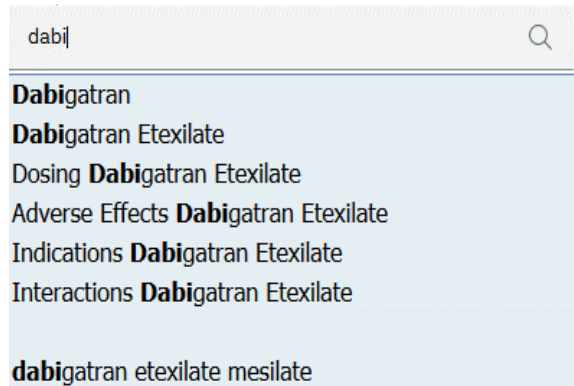


Whether you are looking for information about a drug, a condition, reproductive risk, toxicity or overdose, alternative medicine or therapy, you can use the *Keyword* search box to quickly find the information you need.


Typically, the more information you can provide, the faster we can move you directly to the answer to your question. Not all searches have a direct link to a topic in our data, but all searches return results that are ranked by relevancy to your search terms.

Note: Searches are NOT case-sensitive.

When you type in the *Keyword* search box the drop-down list opens as soon as you enter three or more characters and makes suggestions based on what you type. For example, If you begin typing "dabigatran," the drop-down list suggests a drug name in addition to dosing, adverse effects, indications, and interactions for the drug.



Once you find a match in the drop-down list, do any one of the following:

- **Start the search with the mouse**
Click on an item in the drop-down list, and the search starts immediately.
- **Start the search with the keyboard**
Use the **arrow up/down** keys to select an item and then press the **Enter** key (or click the search button ) to start the search.
- **Keep typing**
The list narrows with each match to the characters you type.

SEARCH TECHNIQUES

The *Keyword* search box that is available on every page in Micromedex has intuitive search capabilities to provide you with quick, direct access to the most relevant, useful drug information, specifically things such as dosing, adverse effects, indications, and interactions. The single interface allows you to search and navigate to essential drug, disease, toxicology, and patient education information. A single interface ensures clinical consistency across our fortified evidence.

The following search techniques are explained in this section:

- **Landing Pages** - Go directly to a landing page where you can see all the relevant and related information at a glance. See [“Landing Pages” on page 40](#).
- **Direct Access Searching** - These searching suggestions are intended to provide you with shortcuts to important and frequently used drug information. See [“Direct Access Searching” on page 58](#).
- **Brand Name Drugs** - Search on a brand name drug to see a list of the corresponding generic drugs being displayed on a Brand Name Results page. See [“Brand Name Drugs” on page 66](#).

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- **Intelligent Searching** - The Micromedex intelligent searching provides in-line spelling suggestions in real time while you are conducting your search. See [“Intelligent Searching” on page 67.](#)
- **Filtered Searching** - Specify a filter option to search specifically within the drug, disease, or toxicology content to receive more targeted results. See [“Filtered Searching” on page 68.](#)
- **Targeted Searches** - Several tightly-focused, targeted searches are available for clinicians to quickly gain access to highly sought-after information such as black box warnings and comparative tables. See [“Targeted Searches” on page 70.](#)
- **Salt/Base Forms, Combinations, Kits** - When searching on a base of a salt/base form, Micromedex returns a landing page with links to allow you to choose the specific substance. When searching on a combination drug or a kit you are taken directly to the content landing page, which includes links to other substance choices. See [“Salt/Base Forms, Combinations, Kits” on page 81.](#)
- **Intermediate Search Results** - All results are displayed if the search does not employ one of the other techniques. See [“Intermediate Search Results” on page 83.](#)
- **International Drug Searching** - Subscribers to international drug databases can search using local brand names. [“International Drug Searching” on page 85.](#)

Landing Pages

The screenshot shows the Micromedex landing page for Metformin Hydrochloride. At the top, the drug name is displayed with a green checkmark. Below it, there are filters for 'Formulary' (Hospital Formulary) and 'Status' (Formulary). Drug classes include 'Antidiabetic' and 'Biguanide', and the route is 'Oral'. The regulatory authority is set to 'FDA'. The page is divided into three tabs: 'Quick Answers', 'In-Depth Answers', and 'All Results'. The 'In-Depth Answers' tab is active, showing detailed information under the heading 'Dosing/Administration'. This section includes 'Adult Dosing' with a print icon, an 'Important Note' about eGFR and orphan drug designation, 'Polycystic ovary syndrome' with a guideline dose, and 'Type 2 diabetes mellitus' with initial dosing instructions. A 'Related Results' sidebar on the right lists links for Disease, Toxicology, Consumer Drug Information, Drug Consults, eMC SmPC (UK), Index Nominum, IT- Dialogo Sui Farmaci, Martindale, Product Lookup - Martindale, Product Lookup - RED Book, and Product Lookup - Tox & Drug. A 'Feedback' button is located at the bottom right of the sidebar.

The purpose of a landing page is to show all relevant and related information at a glance, so you can quickly navigate to your specific area of interest. It intuitively displays tabs for summary information and detailed information. Micromedex takes you directly to the landing page when the application deems it highly likely that this is your area of interest. There are landing pages for Drug, Disease, Toxicology, and Alternative Medicine information.

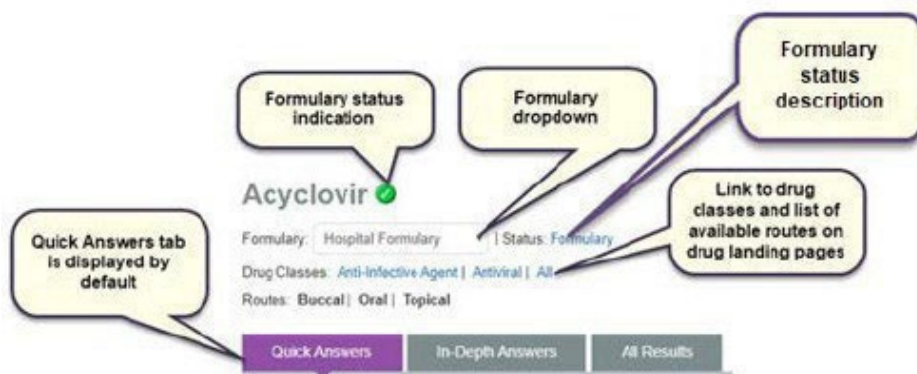
Whether you arrived on the landing page directly from your search or you clicked on a link on the *Intermediate Search Results* page (see [“Intermediate Search Results” on page 83](#)), the landing page gathers all the related results for the search together into one compact view.

The amount and layout of the information shown on a landing page will vary by your subscription and content availability. Landing pages consist of three tabs:

- Quick Answers (see [page 42](#))
- In-Depth Answers (see [page 44](#))
- All Results (see [page 48](#))

Landing pages for drugs also include the following information:

- Available routes
- Links to drug classes associated with the drug. Click a link to see all the drugs in the class.
- Formulary status designated by an icon (Formulary customers only)
The Micromedex® Formulary product provides immediate access to formulary information throughout your facility. It guides prescribing clinicians toward formulary drugs, saving your pharmacists, nurses, and physicians time – and your facility money. Formulary Status is integrated with Micromedex, so that a drug’s designated formulary status displays on the drug landing page in the form of an icon. Examples of formulary status, which are maintained by your facility’s formulary administrators and are customizable, include, but are not limited to, Formulary, Non-Formulary, Preferred, and Restricted. To find out more about the Formulary Status product contact your Client Service Manager or Merative Customer Support (see [“Customer Resource Center” on page ii](#)).



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- Drug information from the Food and Drug Administration (FDA), Health Canada and European Medicines Agency (EMA), if available. Click an item from the **Regulatory Authority** drop-down list to view drug information from a specific regulatory authority.

Note: If drug information is available from only one source, the Regulatory Authority drop-down list is disabled.

The screenshot displays the Micromedex interface for Ciprofloxacin. At the top, the drug name 'Ciprofloxacin' is shown with a green checkmark. Below it, there are filters for 'Formulary: Hospital Formulary' and 'Status: Formulary'. The 'Drug Classes' are listed as 'Antibiotic | Anti-Infective Agent | All' and 'Routes' as 'Intratympanic | Intravenous | Oral'. A 'Regulatory Authority' dropdown menu is set to 'Health Canada', with a Canadian flag icon next to it. The 'Quick Answers' tab is selected, showing 'Dosing/Administration' and 'Adult Dosing' sections. A Canadian flag icon is also present above the 'Adult Dosing' section. The 'Related Results' panel on the right lists various sources like 'Alternative Medicine', 'Disease', 'Toxicology', 'Consumer Drug Information', 'Drug Consults', 'eMC SmPC (UK)', 'Index Nominum', 'IT- Dialogo Sui Farmaci', 'Martindale', and 'P&T QUIK REPORTS'. A 'Feedback' button is visible on the far right.

A flag identifying the selected regulatory authority displays next to the Regulatory Authority drop-down list and on the middle panel of the Quick Answers and In-Depth Answers tabs. The flag also displays above the back-to-top icon that allows you to return to the top of the document. See [Chapter 5: Regulatory Authority Information on page 116](#) for more information.


Quick Answers Tab



The *Quick Answers* tab is the default display for the landing page. It consists of three panels, which are all displayed by default. The middle panel contains the text of the summary monograph. Depending on the search term this may be a monograph for Summary Drug Information, Summary Disease Information, Summary Toxicology Information, or Summary Alt Med Info. Click the **In-Depth Answers** link, if available, to view the same section in the detailed monograph on the *In-Depth Answers* tab.

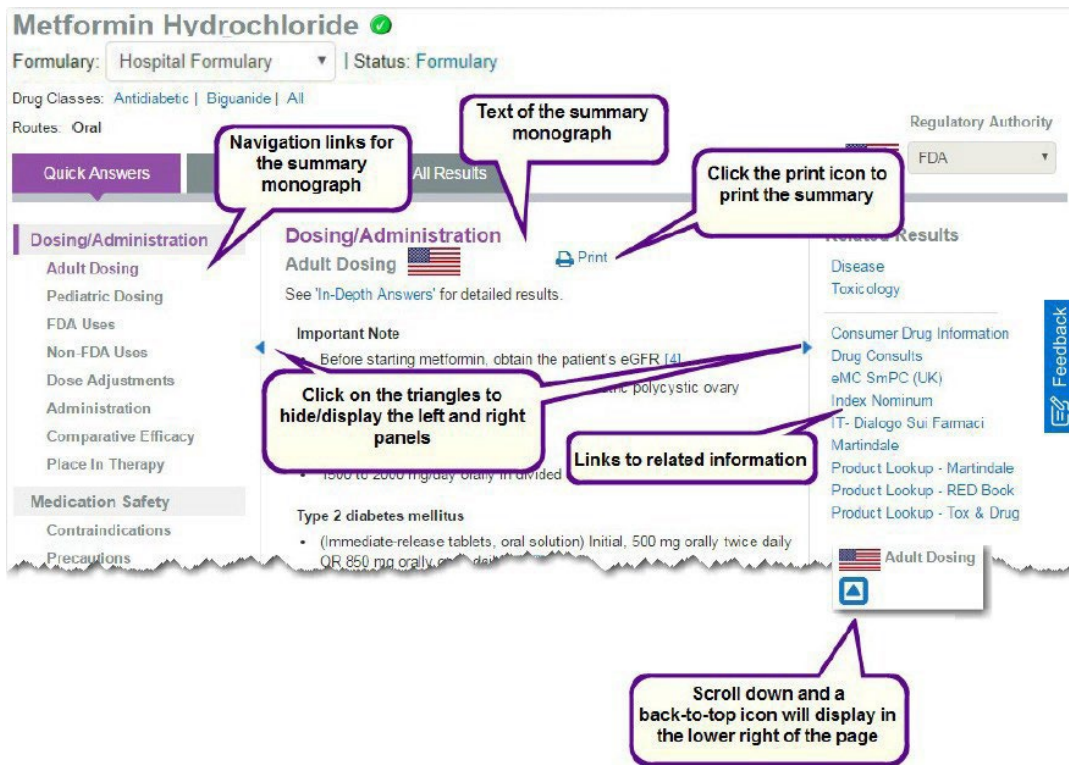
The left panel contains links for navigating the sections of the summary monograph. The right panel contains links to:

- Related information in other subscribed databases, such as: Alternative Medicine, Disease, Drug, Toxicology, Patient Handouts, Index Nominum, Drug Consults, Martindale, Consumer Drug Info, P&T QUIK, IT-Dialogo sui Farmaci

- Product lookup tools - Clicking the **Tox & Drug, Martindale** or **Micromedex® RED BOOK®** links result in searches in the associated tool or application using the drug used in the initial search. See [Chapter 16: Tox & Drug Product Lookup Tool](#) or [Chapter 5: Drug Information on page 87](#) or [Chapter 18: Micromedex® RED BOOK® on page 266](#) for additional information.

Click the **Print** icon ( **Print**) to print the summary monograph. For more details on printing [“Printing” on page 86](#).

You can hide/display the left and right panels to maximize the viewing area by clicking the **blue Triangles** ( ). If you hide or display a panel while viewing the *Quick Answers* tab, the action will also apply to the *In-Depth Answers* tab.



For more details on the links under Related Results in the right panel see the following chapters:

- [Chapter 5: Drug Information on page 87](#)
- [Chapter 6: Disease Information on page 123](#)
- [Chapter 7: Toxicology Information on page 135](#)
- [Chapter 8: Alternative Medicine Information on page 145](#)

In-Depth Answers Tab

Click the **In-Depth Answers** tab to view the detailed monograph. Depending on the search term this may be a monograph for Detailed Drug Information, Disease Emergency or General Medicine, Detailed Toxicology Information, or In-Depth Alt Med Info. As with the *Quick Answers* tab the *In-Depth Answers* tab consists of three panels, which are all displayed by default. The middle panel contains the text of the detailed monograph. Click the **Quick Answers** link, if available, to view the same section in the summary monograph on the *Quick Answers* tab.


The left panel contains links for navigating the sections of the detailed monograph.

The right panel contains links to:


- Related information in other subscribed databases, such as: Alternative Medicine, Disease, Drug, Toxicology, Patient Handouts, Index Nominum, Drug Consults, Martindale, Consumer Drug Info, P&T QUIK, IT-Dialogo sui Farmaci

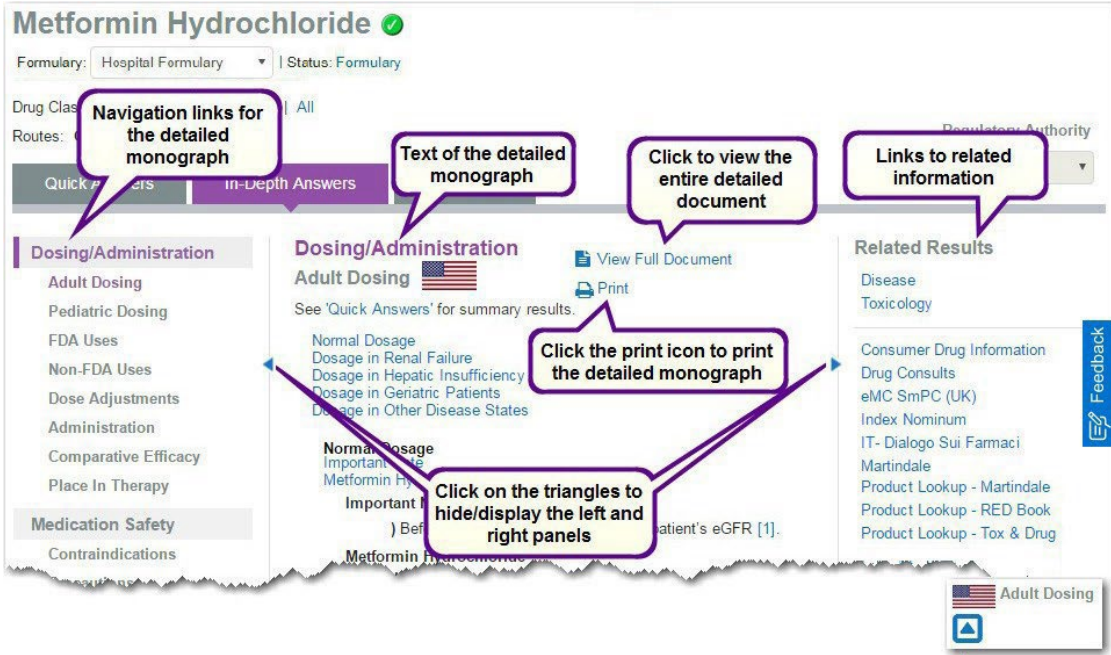
- Product lookup tools - Clicking the **Tox & Drug**, **Martindale** or **Micromedex® RED BOOK®** links result in searches in the associated tool or application using the drug used in the initial search. See [“Tox & Drug Product Lookup Tool” on page 234](#) or [Chapter 5: Drug Information on page 87](#) or [Chapter 18: Micromedex® RED BOOK® on page 266](#) for additional information.

Click **View Full Document** to view the entire detailed monograph. Click **View Document Sections** to return to the panel view.

Click the **Print** icon () to print the detailed monograph. For more details on printing see [“Printing” on page 86](#). This is available when viewing the document sections or the full document.

You can hide/display the left and right panels to maximize the viewing area by clicking the **blue**

Triangles (). If you hide or display a panel while viewing the *In-Depth Answers* tab, the action will also apply to the *Quick Answers* tab.



The screenshot shows the Micromedex interface for Metformin Hydrochloride. The main content area displays the 'Dosing/Administration' section for 'Adult Dosing' with a list of links: 'Normal Dosage', 'Dosage in Renal Failure', 'Dosage in Hepatic Insufficiency', 'Dosage in Geriatric Patients', and 'Dosage in Other Disease States'. A callout box points to the 'View Full Document' and 'Print' icons, stating 'Click the print icon to print the detailed monograph'. Another callout points to the 'View Full Document' link, stating 'Click to view the entire detailed document'. A third callout points to the 'Quick Answers' and 'In-Depth Answers' tabs, stating 'Navigation links for the detailed monograph'. A fourth callout points to the 'Dosing/Administration' section header, stating 'Text of the detailed monograph'. A fifth callout points to the 'Related Results' panel on the right, stating 'Links to related information'. A sixth callout points to the blue triangles icon in the bottom right corner, stating 'Click on the triangles to hide/display the left and right panels'. A seventh callout points to the 'Adult Dosing' section header, stating 'Scroll down and a back-to-top icon will display in the lower right of the page'.

For more details on the links under Related Results in the right panel see the following chapters:

- [Chapter 5: Drug Information on page 87](#)
- [Chapter 6: Disease Information on page 123](#)
- [Chapter 7: Toxicology Information on page 135](#)
- [Chapter 8: Alternative Medicine Information on page 145](#)

Searching Within a Document

When viewing the full detailed monograph you can search within the document. Simply enter a word or phrase in the search box located below the landing page tabs and click the **search button** or press the **Enter** key. The first occurrence of your search term is highlighted in orange, and subsequent occurrences are highlighted in yellow. Use the **up/down** buttons or the **arrow up/down** keys to move from one highlighted occurrence to another.

The screenshot shows the Micromedex interface for Metformin Hydrochloride. At the top, the drug name is displayed with a green checkmark. Below it, there are filters for Formulary (Hospital Formulary), Status (Formulary), Drug Classes (Antidiabetic, Biguanide, All), and Routes (Oral). A Regulatory Authority dropdown menu is set to FDA. The main content area shows a search for 'intervention' with 5 of 35 results. The search results are displayed in a list format. The first result is highlighted in orange, and subsequent occurrences are highlighted in yellow. Annotations with arrows point to the search box and the highlighted text, providing instructions on how to search and navigate.

Use the up/down buttons or arrow up/down keys to navigate to the highlighted occurrences of the search term

Enter a search term and click the search button or press the Enter key

5 of 35 results for intervention

...ut the follow-up period. Compared with placebo, the intensive lifestyle **intervention** reduced the incidence of diabetes...
...e metformin group reduced the incidence of diabetes by 31%. The incidence of diabetes was 11, 7.8, and 4.8 cases...
...-years in the placebo, metformin, and lifestyle groups, respectively. The intensive lifestyle **intervention** was more...
...reatment with metformin at reducing the development of diabetes. The estimated number of people who would need...
...to be treated to prevent one case of diabetes during a period of 3 years would be 6.9 for the intensive lifestyle-**intervention** program,
...and 13.9 for metformin. Fifty percent of participants in the lifestyle modification group achieved the weight-loss target at their latest
...visit; 74% and 58% of participants met the goal of at least 150 minutes of physical activity per week at the 24-week and latest visit,
...respectively. Gastrointestinal side effects were highest in the metformin treatment group, and musculoskeletal symptoms were
...highest in the intensive lifestyle modification group. No deaths were attributed to the study **intervention** [56].

2) 10-Year Follow-Up

a) Due to the benefits demonstrated with intensive lifestyle **intervention** (ILS) of the Diabetes Prevention Program, at the 2.8 year
...follow-up, treatment was unblinded, and all 3 groups were offered a group-administered version of the lifestyle **intervention** and then

Navigating the Full Document

When viewing the full detailed monograph you have the following options for moving within the document:

- Arrow Up/Down keys
- Page Up/Page Down keys
- Browser scroll bar
- Drop-down box under the landing page tabs - Select a document section from this list to go directly to that section.
- Click the back-to-top icon to return to the top of the document.

The screenshot displays the Micromedex interface for Metformin Hydrochloride. At the top, the drug name is shown with a green checkmark. Below it, there are filters for Formulary (Hospital Formulary), Status (Formulary), Drug Classes (Antidiabetic, Biguanide), and Routes (Oral). The Regulatory Authority is set to the USA (FDA). Navigation tabs for Quick Answers, In-Depth Answers, and All Results are visible. A search bar is present with the text 'Search within Document'. A callout bubble points to a drop-down menu under 'Patient Education' with the text 'Select a document section from the drop-down list'. Another callout bubble points to a scroll bar on the right with the text 'Use the browser scroll bar or the up/down arrow keys or the Page Up/Page Down keys'. A third callout bubble points to a back-to-top icon at the bottom right with the text 'Click the back-to-top icon to return to the top of the document'. The main content area shows search results for 'Area Under the Curve' and 'ADME Absorption'.


All Results Tab

Click the **All Results** tab to view all results associated with your search term. The *All Results* tab consists of two panels, which are both displayed by default. The left panel contains links to:

- Related information in other subscribed databases, such as: Alternative Medicine, Disease, Drug, Toxicology, Patient Handouts, Index Nominum, Drug Consults, Martindale, Consumer Drug Info, P&T QUIK, IT-Dialogo suiFarmaci
- Product lookup tools - Clicking the **Tox & Drug, Martindale** or **Micromedex® RED BOOK®** links result in searches in the associated tool or application using the drug used in the initial search. See [Chapter 16: Tox & Drug Product Lookup Tool](#) or [Chapter 5: Drug Information on page 87](#) or [Chapter 18: Micromedex® RED BOOK® on page 266](#) for additional information.
- Filters for limiting the results by: Drug, Disease, Toxicology, Alternative Medicine, Lab, Reproductive Risk

The right panel displays all matches found for the search term and is organized exactly like the Intermediate Search Results page. (See [“Intermediate Search Results” on page 83](#) for more details.) Matches are ranked by relevance, and each result is organized as follows:

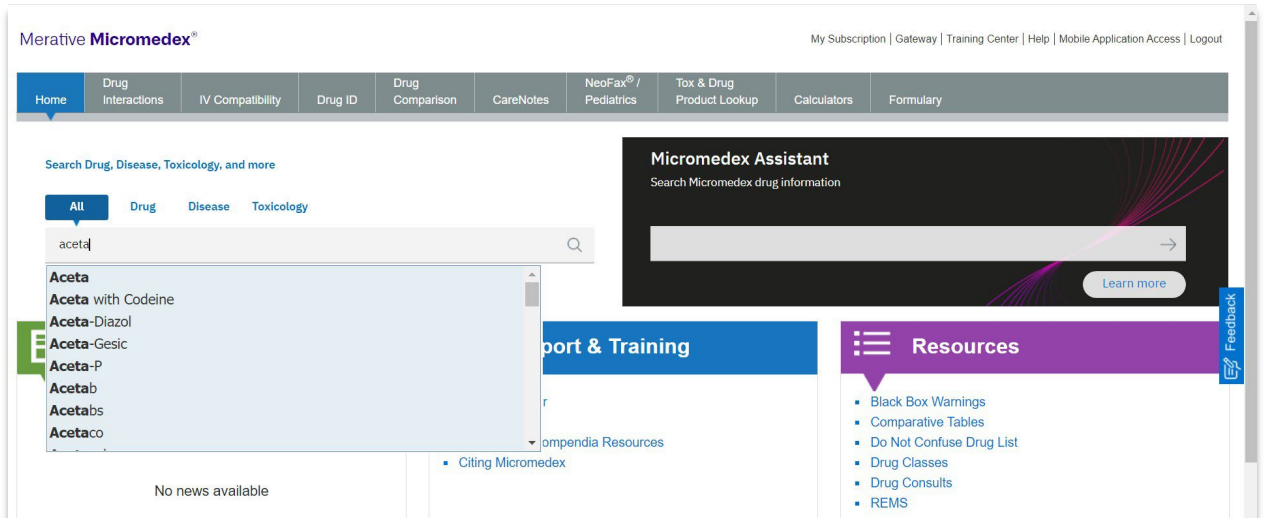
- Title, which links to the associated landing page or document
- Route (if applicable)
- The type of information (drug, disease, lab, etc.), the type of document (detailed, summary, etc.)

You can hide/display the left panel to maximize the viewing area by clicking the **blue triangle** ().

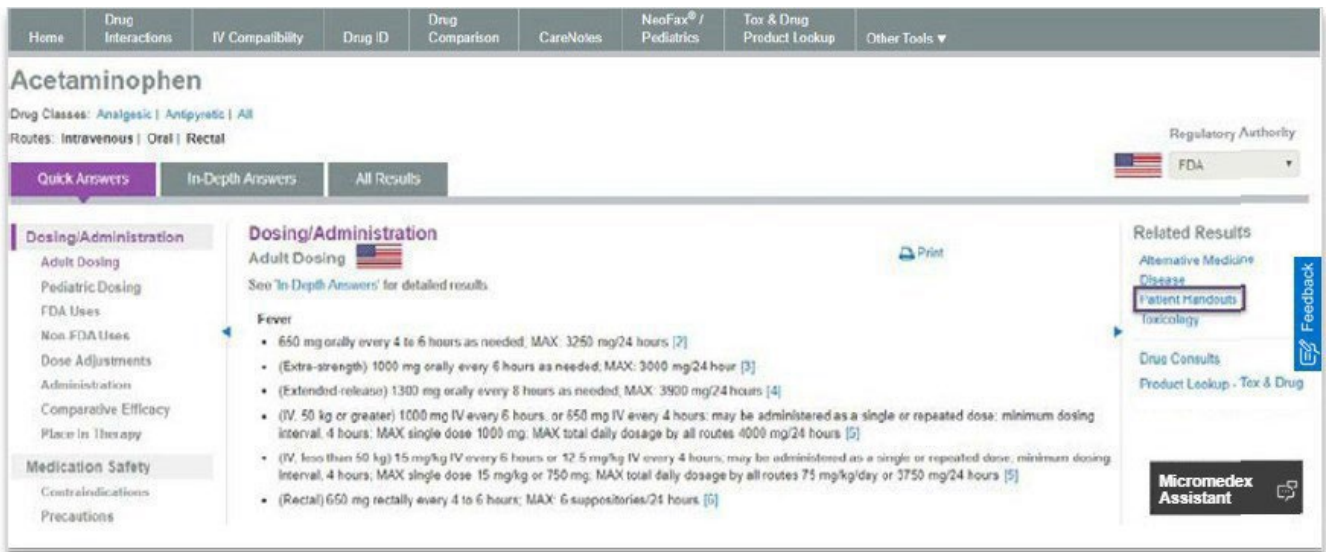


Patient Info Suppression in Patient Handouts

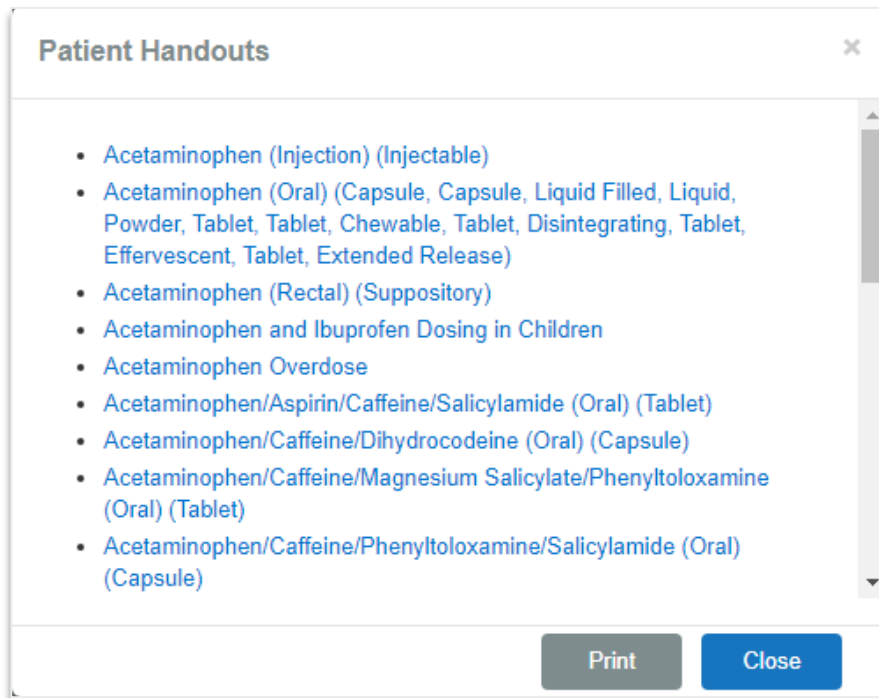
Sign in into your **Micromedex Web Application**, it will navigate you directly into the **Home Search** page of Micromedex. Enter the drug name and click on the **Search** icon, which takes you to the **Drug Landing** page.



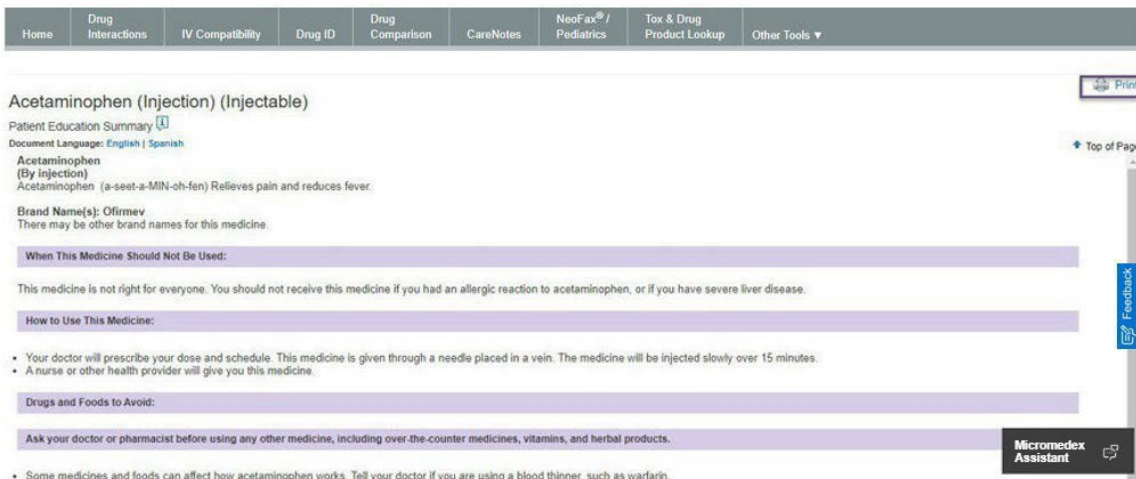
In the right-hand side of the drug landing page, there is a link for **Patient Handouts**.



Click the **Patient Handouts** link and select any one of the titles as listed in the below image.



Once you click on anyone of the title, it will navigate you to the **Patient Education Summary** page. Click on the **Print** link seen on the right top corner of this page.



The page will display the patient education summary information along with the PHI information as **Facility Name, Caregiver's Name, Patient's Name**. These three fields will be suppressed and will not be seen by the user in the **Print** page, it is typically due to PHI regulations in your region. For details see ["Appendix G: Free Text Fields Suppression"](#) on [page 356](#).

Acetaminophen
Patient Education Summary

Facility Name:
 Caregiver's Name:
 Patient's Name:

If you are not able to see these three fields (Facility Name, Caregiver's Name, and Patient's Name) then it is typically due to PII regulations in your region.

Acetaminophen (By Injection)
Acetaminophen (a-seet-a-MIN-oh-fen) Relieves pain and reduces fever.

Brand Name(s): Ofirmev
There may be other brand names for this medicine.

When This Medicine Should Not Be Used:

This medicine is not right for everyone. You should not receive this medicine if you had an allergic reaction to acetaminophen, or if you have severe liver disease.

How to Use This Medicine:

- Your doctor will prescribe your dose and schedule. This medicine is given through a needle placed in a vein. The medicine will be injected slowly over 15 minutes.
- A nurse or other health provider will give you this medicine.

Drugs and Foods to Avoid:

Ask your doctor or pharmacist before using any other medicine, including over-the-counter medicines, vitamins, and herbal products.

Micromedex Assistant

Drug Result Page

Drug Result page will display all the drug related information which can easily navigate the clinician to view their areas of interest. If the clinician is looking for drug information related to Acetaminophen, the drug search landing page will be seen as shown in the below image.

Acetaminophen ✓

Formulary: | Status: On Formulary

Drug Classes: Analgesic | Antipyretic | All
 Routes: Intravenous | Oral | Rectal

Regulatory Authority: FDA

Quick Answers | In-Depth Answers | All Results

Dosing/Administration

Adult Dosing

See 'In-Depth Answers' for detailed results.

Fever

- 650 mg orally every 4 to 6 hours as needed; MAX: 3250 mg/24 hours [2]
- (Extra-strength) 1000 mg orally every 6 hours as needed; MAX: 3000 mg/24 hour [3]
- (Extended-release) 1300 mg orally every 8 hours as needed; MAX: 3900 mg/24 hours [4]
- (IV, 50 kg or greater) 1000 mg IV every 6 hours, or 650 mg IV every 4 hours; may be administered as a single or repeated dose; minimum dosing interval, 4 hours; MAX single dose 1000 mg; MAX total daily dosage by all routes 4000 mg/24 hours [5]
- (IV, less than 50 kg) 15 mg/kg IV every 6 hours or 12.5 mg/kg IV every 4 hours; may be administered as a single or repeated dose; minimum dosing interval, 4 hours; MAX single dose 15 mg/kg or 750 mg; MAX total daily dosage by all routes 75 mg/kg/day or 3750 mg/24 hours [5]
- (Rectal) 650 mg rectally every 4 to 6 hours; MAX: 6 suppositories/24 hours [6]

Related Results








- Alternative Medicine
- Disease
- Toxicology
- Consumer Drug Information
- Drug Consults
- eMC SmPC (UK)
- Index Nominum
- Martindale
- Product Lookup - Martindale

Micromedex Assistant

The drug Acetaminophen is displayed with a status icon which is seen right next to the drug with a green tick mark . User can see icons for up to 16 status tiers which are created by the Formulary Administrator. These icons can be image, or up to two alphabet abbreviations show in the icon. A single drug can be associated to multiple status tiers. When associated to multiple status tiers, the drug will be displayed with the multiple status icon as shown in the list below.

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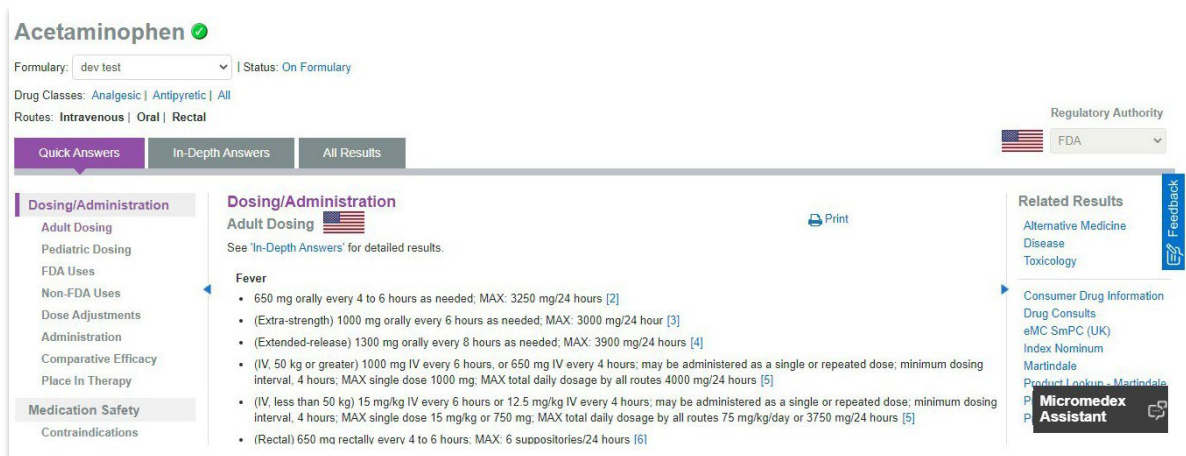
Formulary status is denoted by an icon with a simple description as listed below:

-  - On Formulary
-  - Non Formulary
-  - Formulary Preferred
-  - Formulary Restricted
-  - Formulary Non Preferred
-  - Multiple Status
-  - Formulary Deleted

A single click on the formulary status icon seen right next to the drug, navigates the clinician to the formulary status page in the formulary application, for the corresponding drug. If you hover your mouse over the formulary status icon, status tier description will be displayed.

Formulary Dropdown Selection (when multiple formularies are available)

To change to a different formulary, click the down arrow in the drop-down list and select the desired formulary. The application will search the selected formulary and a status icon related to the selected formulary and the status description associated with the selected formulary will be displayed.



Formulary Status

The formulary status description is displayed in the Drug Result page of Micromedex. The status description will be displayed as a single status description or as multiple status descriptions if a formulary is associated with more than one status. If you hover your mouse over the status description, the tool tip **"View in Formulary"** will display. One single click on the status description will take you to the *Formulary Status* page of the selected drug.

Limitations of Formulary Status Display in Drug Landing Page

Although the expectation is that the formulary status is displayed for a majority of the cases when there is an attached formulary item, there are some cases when the formulary status may not be displayed in Micromedex. An example would be a custom formulary item which has not been linked to the generic drug or some combination drugs with product names that do not align with a RED BOOK® generic drug description. In these cases if the user does not find a formulary status for an item, they can navigate to the formulary application and initiate a search in the Formulary application.

Multiple Landing Pages

When multiple landing pages exist for a search term (drug, disease, toxicology, alternative medicine), the landing page that is displayed by default is determined by a landing page hierarchy. For details see [Appendix E: Landing Page Hierarchy on page 352](#).

Landing Page Examples


The following landing page search examples are provided:

- ["Example 1 - Landing Page for a Drug" on page 54](#)
- ["Example 2 - Landing Page for a Disease" on page 55](#)
- ["Example 3 - Landing Page for Toxicology" on page 56](#)
- ["Example 4 - Landing Page for Alternative Medicine" on page 57](#)

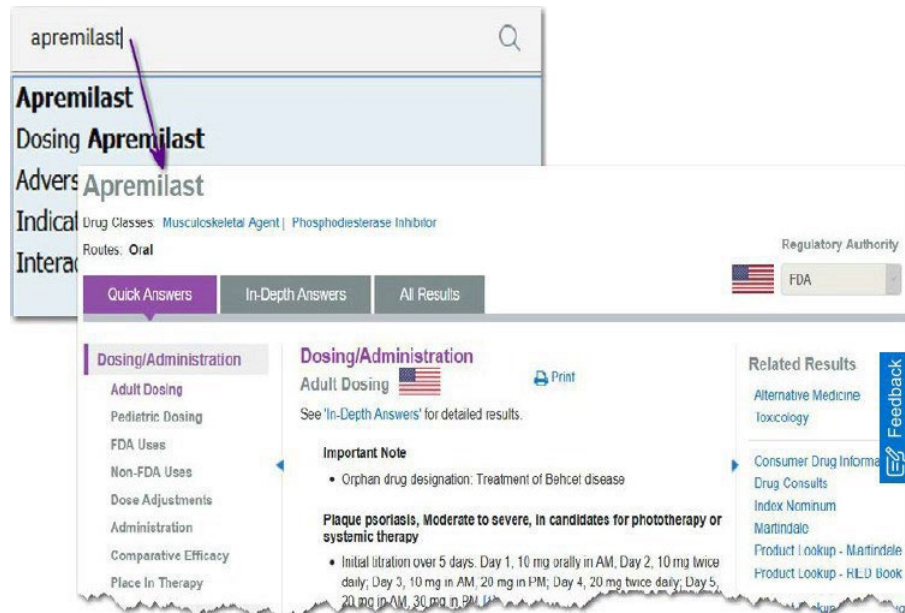
Example 1 - Landing Page for a Drug

1. Start by typing the drug name “apremilast.” The drop-down list makes suggestions.
2. Click “Apremilast” in the drop-down list.

-OR-

Use the **arrow up/down** keys to select "Apremilast." Then click the **Search** button () or press the **Enter** key.

3. The Apremilast drug landing page displays.




Example 2 - Landing Page for a Disease

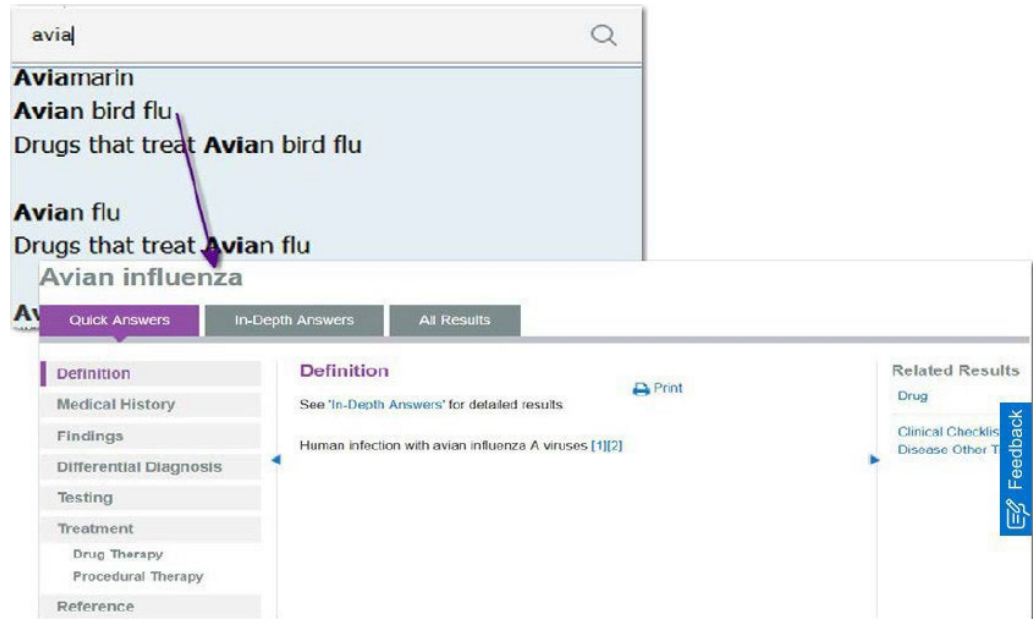
1. Start by typing the disease “avian bird flu.” The drop-down list makes suggestions.
2. Click “Avian bird flu” in the drop-down list.

-OR-

Use the **arrow up/down** keys to select “Avian bird flu.” Then click the **Search**

button () or press the **Enter** key.

3. The Avian influenza disease landing page displays.



The screenshot displays the Micromedex search interface. At the top, a search bar contains the text "avia" and a magnifying glass icon. Below the search bar, a dropdown menu lists suggestions: "Aviamarin", "Avian bird flu", "Drugs that treat Avian bird flu", "Avian flu", and "Drugs that treat Avian flu". A purple arrow points to "Avian flu". Below the dropdown, the search results for "Avian influenza" are displayed. The results are organized into three tabs: "Quick Answers", "In-Depth Answers", and "All Results". The "Quick Answers" tab is selected. On the left side, a vertical menu lists various categories: "Definition", "Medical History", "Findings", "Differential Diagnosis", "Testing", "Treatment", "Drug Therapy", "Procedural Therapy", and "Reference". The "Definition" category is selected. The main content area shows the "Definition" section, which includes the text "See 'In-Depth Answers' for detailed results" and "Human infection with avian influenza A viruses [1][2]". A "Print" button is visible next to the definition. On the right side, there is a "Related Results" section with links for "Drug", "Clinical Checklis", "Disease", and "Other T". A vertical "Feedback" button is located on the far right.


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Example 3 - Landing Page for Toxicology

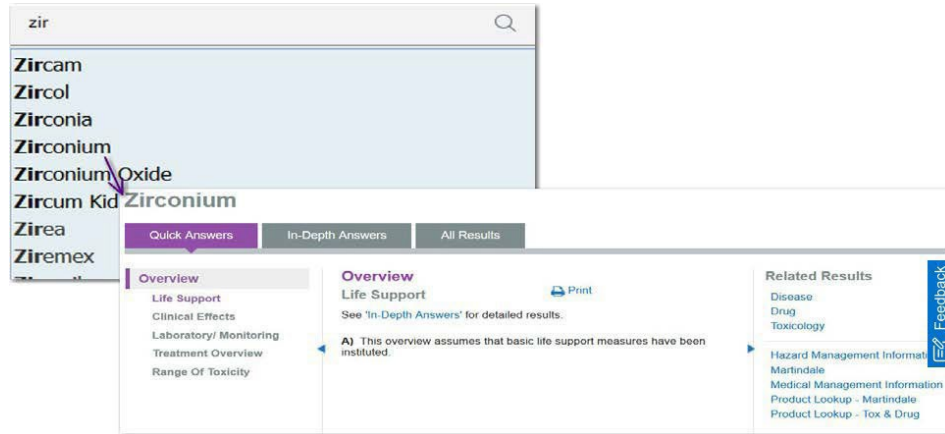
1. Start by typing "zir." The drop-down list makes suggestions.
2. Click "Zirconium" in the drop-down list.

-OR-

Use the **arrow up/down** keys to select "Zirconium." Then click the **Search** button

() or press the **Enter** key.

3. The Zirconium toxicology landing page displays.



The screenshot displays the Micromedex search interface. At the top, a search bar contains the text "zir" and a magnifying glass icon. Below the search bar, a dropdown list of suggestions is visible, including "Zircam", "Zircol", "Zirconia", "Zirconium", "Zirconium Oxide", "Zircum Kid", "Zirconium", "Zirea", and "Ziremex". A red arrow points to the "Zirconium" option in the list. Below the search bar, the "Zirconium" landing page is displayed. The page has a navigation bar with three tabs: "Quick Answers", "In-Depth Answers", and "All Results". The "Quick Answers" tab is selected. The main content area is divided into three columns. The left column contains a table of contents with links to "Life Support", "Clinical Effects", "Laboratory/ Monitoring", "Treatment Overview", and "Range Of Toxicity". The middle column is titled "Overview" and "Life Support" and contains the text "See 'In-Depth Answers' for detailed results." and a red-bordered box with the text "A) This overview assumes that basic life support measures have been instituted." A "Print" icon is located to the right of the text. The right column is titled "Related Results" and contains links to "Disease", "Drug", "Toxicology", "Hazard Management Information", "Martindale", "Medical Management Information", "Product Lookup - Martindale", and "Product Lookup - Tox & Drug". A vertical "Feedback" button is located on the far right side of the page.

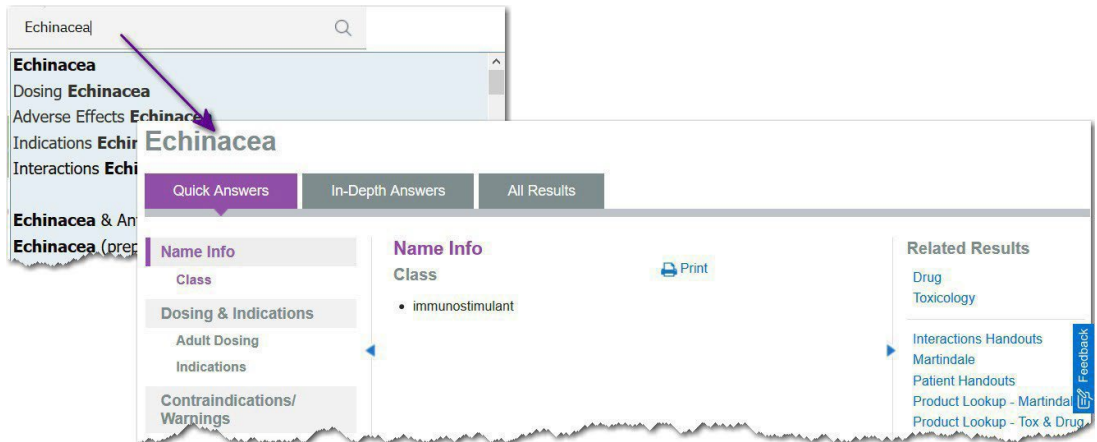
Example 4 - Landing Page for Alternative Medicine

1. Start by typing "echi." The drop-down list makes suggestions.
2. Click "Echinacea" in the drop-down list.

-OR-

Use the **arrow up/down** keys to select "Echinacea." Then click the **Search** button (🔍) or press the **Enter** key to begin the search.

3. The Echinacea alternative medicine landing page displays.



Direct Access Searching

Direct Access searching suggestions are intended to provide you with shortcuts to important and frequently used drug information. Simply type a generic drug name or disease/condition in the *Keyword* search box, and you are immediately presented with additional suggestions. When selecting a direct access topic, you are routed directly to information on the topic of interest, bypassing some navigation and search results selection steps.

For example, searching on “dosing amlodipine” results in the Amlodipine Detailed Drug Information document opened to the Dosing Information topic.

Search Examples

The following Direct Access Searching examples are presented:

- [“Example 1 - Adverse Effects of a Drug” on page 59](#)
- [“Example 2 - Drugs That Cause” on page 60](#)
- [“Example 3 - Drugs That Treat” on page 63](#)

Example 1 - Adverse Effects of a Drug

Search for adverse effects of a generic drug.

1. Begin typing "lisinopril." The drop-down list provides suggestions.



2. Click on "Adverse Effects Lisinopril," or use the **arrow up/down** keys to select it and then click the **Search** button (🔍) or press the **Enter** key.
3. You are taken directly to the Adverse Effects section on the Quick Answers tab on the landing page for Lisinopril.

The screenshot shows the Micromedex landing page for Lisinopril. At the top, it displays 'Lisinopril' with a green checkmark. Below this, there are filters for 'Formulary: Mental Health Institute', 'Status: Formulary', 'Drug Classes: ACE Inhibitor | Antihypertensive | All', and 'Routes: Oral'. There are three tabs: 'Quick Answers' (selected), 'In-Depth Answers', and 'All Results'. On the left side, there is a navigation menu with categories: 'Dosing/Administration' (Adult Dosing, Pediatric Dosing, FDA Uses, Non-FDA Uses, Dose Adjustments, Administration, Comparative Efficacy, Place In Therapy), 'Medication Safety' (selected), 'Contraindications', 'Precautions', 'Adverse Effects', 'Black Box Warning', 'REMS', and 'Drug Interactions (single)'. The 'Medication Safety' section is expanded to show 'Adverse Effects'. A purple arrow points to the 'Adverse Effects' link. The 'Adverse Effects' section includes a 'Print' button and a link to 'See 'In-Depth Answers' for detailed results.' Below this, there are two sections: 'Common' and 'Serious'. The 'Common' section lists: Cardiovascular: Chest pain, Hypotension (up to 11%), Neurologic: Dizziness (12% to 19%), Headache, and Respiratory: Cough. The 'Serious' section lists: Cardiovascular: Hypotension (Severe) (9%), Dermatologic: Stevens-Johnson syndrome (1% or more) necrolysis (1% or more), Endocrine metabolic: Hyperkalemia (2.2% to 6%), Gastrointestinal: Intestinal angioedema, Immunologic: Anaphylaxis due to hymenoptera venom, Drug induced anaphylactoid reaction, and Renal: Acute renal failure, Renal impairment (2.4%).

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Example 2 - Drugs That Cause

Search for drugs that cause a particular adverse effect or condition, and the results are grouped alphabetically.

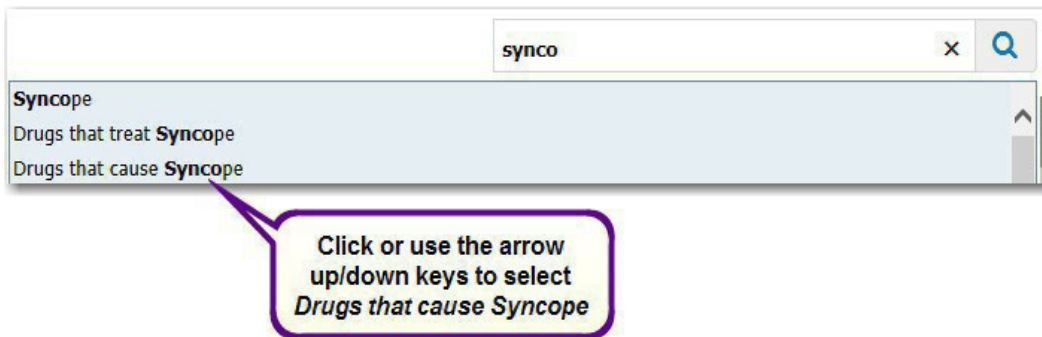
Type a phrase using the noun “drugs”, “medications”, or “substances” with the words “that cause” and the adverse effect or condition. Example searches:


- Drugs that cause skin rash
- Medications that cause insomnia
- Substances that cause edema

- OR -

Type an adverse effect or condition and select the phrase “Drugs that cause...” from the drop-down list.

1. Begin typing “syncope.” The drop-down list makes suggestions.



2. Click on “Drugs that cause Syncope,” or use the **arrow up/down** keys to select it and then click the **Search** button () or press the **Enter** key.

3. Search results are displayed on a *Drugs That Cause xxx* page where xxx is the adverse effect or condition.

Drugs That Cause Syncope

Jump To: [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#)

Displaying 24 of 339 results for "Drugs That Cause Syncope"

[ACAMPROSATE](#)

[ALFUZOSIN](#)

[Alfuzosin Hydrochloride](#)

[ALISKIREN/AMLODIPINE](#)

[ALPROSTADIL](#)

[AMIFOSTINE](#)

[Amiloride Hydrochloride/Hydrochlorothiazide](#)

[AMILORIDE HYDROCHLORIDE/HYDROCHLOROTHIAZIDE](#)

4. If the drug you are looking for begins with a letter occurring later in the alphabet, click on the **Jump To:** letter link, shown at the top of the list.
5. Click on a title to go to the Adverse Effects (Summary Drug Information) or Adverse Reactions (Detailed Drug Information) information on the drug landing page.

Note: If the drug name is displayed in the list using mixed case letters, clicking on it will display the Summary Drug Information document. If the drug name is displayed using all uppercase letters, clicking on it will display the Detailed Drug Information monograph.

BETHANIDINE

Drug Classes: [Adrenergic](#) | [Adrenergic Blocker](#) | [All](#)

Routes:

[In-Depth Answers](#) | [All Results](#)

Dosing/Administration

- [Adult Dosing](#)
- [Pediatric Dosing](#)
- [FDA Uses](#)
- [Non-FDA Uses](#)
- [Dose Adjustments](#)
- [Administration](#)
- [Comparative Efficacy](#)
- [Place In Therapy](#)

Medication Safety

- [Contraindications](#)
- [Precautions](#)
- [Adverse Effects](#)
- [Black Box Warning](#)
- [REMS](#)
- [Drug Interactions \(single\)](#)
- [IV Compatibility \(single\)](#)

Medication Safety [View Full Document](#)

Adverse Effects [Print](#)

- [Cardiovascular Effects](#)
- [Dermatologic Effects](#)
- [Gastrointestinal Effects](#)
- [Hematologic Effects](#)
- [Neurologic Effects](#)
- [Reproductive Effects](#)
- [Respiratory Effects](#)
- [Other](#)

Cardiovascular Effects

- [Hypotension](#)
- [Syncope](#)

Hypotension

- 1) ORTHOSTATIC HYPOTENSION is a common occurrence during bethanidine therapy [16][17][18][19] which may occur to a greater degree than with guanethidine [20]. Severe orthostatic hypotension has resulted in discontinuation of therapy in several patients [21][18].
- 2) Some studies have reported the efficacy of protriptyline in preventing the orthostatic hypotension secondary to bethanidine [22]; however, other studies have not indicated any benefit of protriptyline [19].
- 3) Orthostatic and exertional hypotensive effects of bethanidine were compared with those of guanethidine and debrisoquine in 448 patients

6. Click on the link for the adverse effect or condition that was searched in Step 1 to view additional information.

Cardiovascular Effects

- [Hypotension](#)
- [Syncope](#)

Hypotension

- 1) ORTHOSTATIC HYPOTENSION is a common occurrence during bethanidine therapy [16][17][18][19] which may occur to a greater degree than with guanethidine [20]. Severe orthostatic hypotension has resulted in discontinuation of therapy in several patients [21][18].
- 2) Some studies have reported the efficacy of protriptyline in preventing the orthostatic hypotension secondary to bethanidine [22]; however, other studies have not indicated any benefit of protriptyline [19].
- 3) Orthostatic and exertional hypotensive effects of bethanidine were compared with those of guanethidine and debrisoquine in 448 patients with hypertension [23]. Dosage of bethanidine ranged from 105 to 111 mg daily for periods of 2.9 to 3 years. Guanethidine was administered to 205 patients, debrisoquine to 85 patients, and bethanidine to 158 patients. Postural hypotensive symptoms were observed in 50 patients receiving guanethidine, 15 receiving debrisoquine, and 30 receiving bethanidine. Exertional hypotensive symptoms, early morning symptoms, and attacks of angina without hypotension were observed in a significantly higher number of patients receiving guanethidine than those receiving bethanidine or debrisoquine. The authors concluded that hypotensive effects were more significant in patients receiving guanethidine.
- 4) Extreme alternating patterns of high blood pressure during rest and very low blood pressure seen with exertion during normal daily activities with bethanidine could result in cerebral or myocardial infarction [24]. These authors reported decreases in cerebral and myocardial blood flow during hypotensive episodes in 4 of 11 patients receiving either bethanidine, guanethidine, or debrisoquine sulfate.

Syncope

- 1) Syncope has been reported during initiation of therapy with bethanidine [25][20]. Syncope was reported with rapidly escalating doses from 10 to 25 mg daily in 2 of 12 patients [26]. These symptoms were avoided if the patient was confined to bed for several hours.

Example 3 - Drugs That Treat

Search for drugs that treat a particular condition or disease, and the results are grouped alphabetically within an efficacy rating.

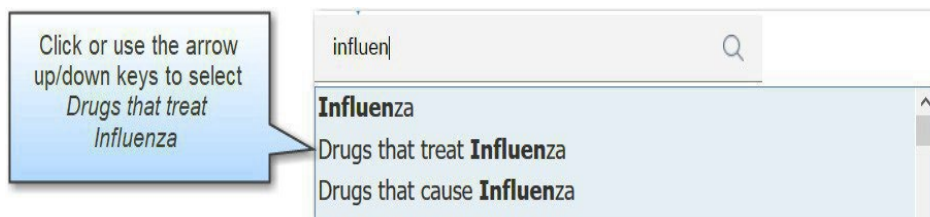
Type a phrase using the noun “drugs”, “medications”, or “substances” with the words “that treat” and the condition or disease. Example searches:


- Drugs that treat skin rash
- Medications that treat insomnia
- Substances that treat edema

- OR -

Type a condition or disease and select the phrase “Drugs that treat...” from the drop-down.

1. In this example begin typing “influenza.” The drop-down list makes suggestions.



2. Click on “Drugs that treat Influenza,” or use the **arrow up/down** keys to select it and then click the **Search** button () or press the **Enter** key.
3. Search results are displayed on a *Drugs That Treat xxx* page where xxx is the condition searched. Medications are grouped by efficacy: Effective, Evidence Favors Efficacy, Evidence is Inconclusive, Ineffective, and Not Rated.

Drugs That Treat Influenza

Display: [Effective \(10\)](#) | [Evidence Favors Efficacy \(5\)](#) | [Evidence is Inconclusive \(3\)](#) | [Ineffective \(0\)](#) | [Not Rated \(0\)](#)

Displaying 18 results for "Drugs That Treat Influenza"

▶ [Effective \(10 results\)](#)

▶ [Evidence Favors Efficacy \(5 results\)](#)

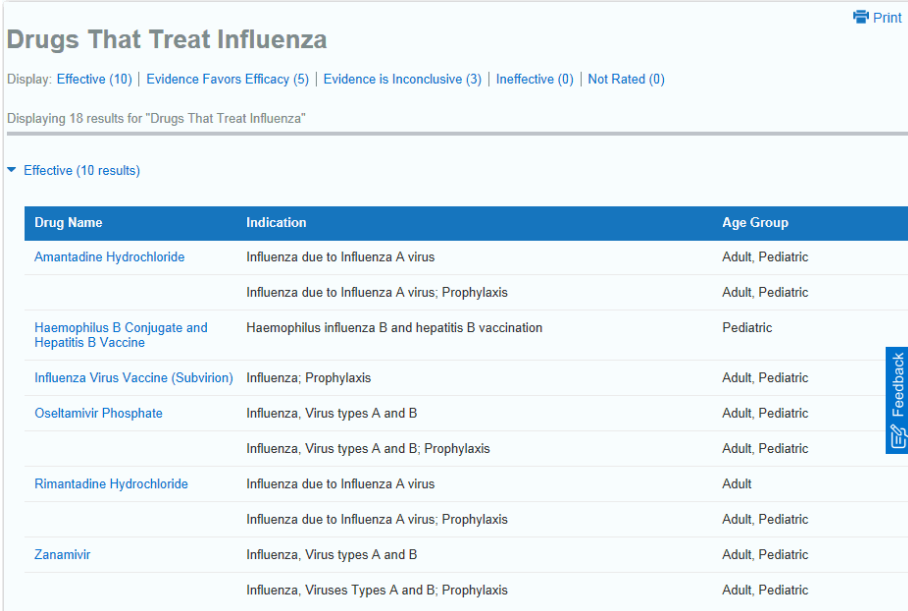
▶ [Evidence is Inconclusive \(3 results\)](#)

▶ [Ineffective \(0 results\)](#)

▶ [Not Rated \(0 results\)](#)

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- View the drugs associated with a specific efficacy rating by clicking on the accord icon bar (or the Efficacy heading link at the top of the page) to expand the list. The drug is shown as a link, with associated indications followed by the indicated age group.



Drugs That Treat Influenza Print


Display: [Effective \(10\)](#) | [Evidence Favors Efficacy \(5\)](#) | [Evidence is Inconclusive \(3\)](#) | [Ineffective \(0\)](#) | [Not Rated \(0\)](#)

Displaying 18 results for "Drugs That Treat Influenza"

▼ [Effective \(10 results\)](#)

Drug Name	Indication	Age Group
Amantadine Hydrochloride	Influenza due to Influenza A virus	Adult, Pediatric
	Influenza due to Influenza A virus; Prophylaxis	Adult, Pediatric
Haemophilus B Conjugate and Hepatitis B Vaccine	Haemophilus influenza B and hepatitis B vaccination	Pediatric
Influenza Virus Vaccine (Subvirion)	Influenza; Prophylaxis	Adult, Pediatric
Oseltamivir Phosphate	Influenza, Virus types A and B	Adult, Pediatric
	Influenza, Virus types A and B; Prophylaxis	Adult, Pediatric
Rimantadine Hydrochloride	Influenza due to Influenza A virus	Adult
	Influenza due to Influenza A virus; Prophylaxis	Adult, Pediatric
Zanamivir	Influenza, Virus types A and B	Adult, Pediatric
	Influenza, Viruses Types A and B; Prophylaxis	Adult, Pediatric

- Click on a drug name to go the Dosing/Administration section on the Quick Answers tab on the drug landing page.



Amantadine Hydrochloride ✓

Formulary: [Oncology Center](#) | Status: [Formulary](#)

Drug Classes: [Adamantane](#) | [Anticholinergic](#) | [All](#)

Routes: [Oral](#)


[Quick Answers](#) | [In-Depth Answers](#) | [All Results](#)

Dosing/Administration

- [Adult Dosing](#)
- [Pediatric Dosing](#)
- [FDA Uses](#)
- [Non-FDA Uses](#)
- [Dose Adjustments](#)
- [Administration](#)
- [Comparative Efficacy](#)
- [Place In Therapy](#)

Medication Safety

Dosing/Administration

Adult Dosing 

See 'In-Depth Answers' for detailed results.

Important Note

- Osmolex ER(TM) extended-release tablet is not interchangeable with other amantadine
- Orphan drug designation: Treatment of levodopa-induced dyskinesia

Drug-induced dyskinesia, In patients receiving levodopa - Parkinson's disease

- (Extended-release capsule) Initial, 137 mg orally once daily at bedtime for 1 week, then
- (Immediate-release) Initial, 100 mg/day orally for 1 week and then increase to 100 mg twice daily dosage at end of 1 year was 362 mg in a small study (off-label dosage) [6].

Additional Direct Access Search Techniques and Examples

Examples of other searches that can be performed using the direct access searching technique include:

- dosing (Example: dosing of Ampicillin)
- indications (Example: indications Dabigatran Etexilate)
- interactions (Example: interactions Metformin)
- FDA approved (Example: FDA approved simvastatin)
- non-FDA approved (Example: non FDA approved hydrochlorothiazide)

Brand Name Drugs

Micromedex allows you to search for drug information using either the common generic or the brand name as the search term.

Note: Brand names available in the United States or Canada are required, except for subscribers to Italian Drug Database (Dialogo sui Farmaci), where local drug names are acceptable for use as a search term. See [“International Drug Searching” on page 85](#).

Searching on a brand name drug that has only one generic drug counterpart will result in the landing page for the generic drug being displayed (e.g., “Imbruvica”). See [“Landing Pages” on page 40](#) for more information.

Searching on a brand name drug that has multiple generic drug counterparts or is comprised of many different formulations and/or routes will result in a list of the corresponding generic drugs being displayed on a *Brand Name Results* page.

This example shows typical Brand Name Results when searching on a brand name (e.g., “Tylenol”). The page displays the brand names in alphabetical order. The ingredients that comprise the drug are shown to the right of the brand name and displayed as hypertext links. Tylenol has many variations of the brand name (such as: Children’s Tylenol, Tylenol Cold Severe Congestion, Tylenol with Codeine, etc.) as well as a multitude of formulations of ingredients (such as: Acetaminophen, or Acetaminophen | Dextromethorphan Hydrobromide | Guaifenesin | Pseudoephedrine Hydrochloride, or Acetaminophen | Codeine Phosphate, etc.).

The screenshot shows the 'Brand Name Results' page for a search of 'tylenol'. At the top, it indicates 'Display: All (142) | United States (47) | Global (95)'. Below this is a 'Jump To' navigation bar with letters A through Z and 0-9, where 'C' is selected. A message states 'Displaying 17 of 142 results found for "tylenol"'. On the right, there are links for 'Tox & Drug: tylenol', 'Martindale: tylenol', and 'RED BOOK Online: tylenol'. A 'Print' icon is in the top right corner. The main content is a table with two columns: 'Brand name' and 'Ingredients in the brand name'. The first row is 'Children's Tylenol (US)' with ingredient 'ACETAMINOPHEN'. The second row is 'Children's Tylenol (Global)' with ingredient 'PARACETAMOL'. The third row is 'Children's Tylenol Cold Plus Cough (Global)' with ingredients 'CHLORPHENAMINE MALEATE | DEXTROMETHORPHAN HYDROBROMIDE | PARACETAMOL | PSEUDOEPHEDRINE HYDROCHLORIDE'. The fourth row is 'Children's Tylenol Meltaways (US)' with ingredient 'ACETAMINOPHEN'. The fifth row is 'Children's Tylenol Plus Cold (US)' with ingredients 'ACETAMINOPHEN | CHLORPHENIRAMINE MALEATE | PHENYLEPHRINE HYDROCHLORIDE'. A 'Feedback' button is on the right side of the table.

Brand name	Ingredients in the brand name
Children's Tylenol (US)	ACETAMINOPHEN
Children's Tylenol (Global)	PARACETAMOL
Children's Tylenol Cold Plus Cough (Global)	CHLORPHENAMINE MALEATE DEXTROMETHORPHAN HYDROBROMIDE PARACETAMOL PSEUDOEPHEDRINE HYDROCHLORIDE
Children's Tylenol Meltaways (US)	ACETAMINOPHEN
Children's Tylenol Plus Cold (US)	ACETAMINOPHEN CHLORPHENIRAMINE MALEATE PHENYLEPHRINE HYDROCHLORIDE

Drug information in Micromedex exists at the generic and ingredient level (not for the brand name), so to view information, click the appropriate ingredient link to view the drug information.

Links that open the Tox& Drug, Martindale, or Micromedex® REDBOOK® product lookup results are available to subscribers from the top right corner of the page.

Note: There may be isolated cases where an ingredient does not have a corresponding drug information document available. When this occurs, the ingredient is not shown as a hypertext link.

To move to a different location in the alphabetical list of brand name results, click on the letter link in the **Jump To:** menu, shown at the top of the *Brand Name Results* page.

Intelligent Searching

The Micromedex intelligent searching provides in-line spelling suggestions in real time while you are conducting your search. It anticipates what you need, even with a misspelling. If you type a term (greater than three characters) and it does not match a term in Micromedex, the drop-down list may offer alternatives. Click on a term in the drop-down list to begin the search.



In addition, if you enter and perform a search that does not produce any results, the application may make suggestions if the search term you typed is close or similar to a drug name. The search term is shown, along with the message that no matches were found. Suggested terms are listed as links.



If there were neither matches to your keyword(s) nor similar matches found in spelling help, the *No Matches Found* message is displayed.

Check your spelling and try again, or modify your keyword(s) to a more common search term and try again.

There were no results found for:

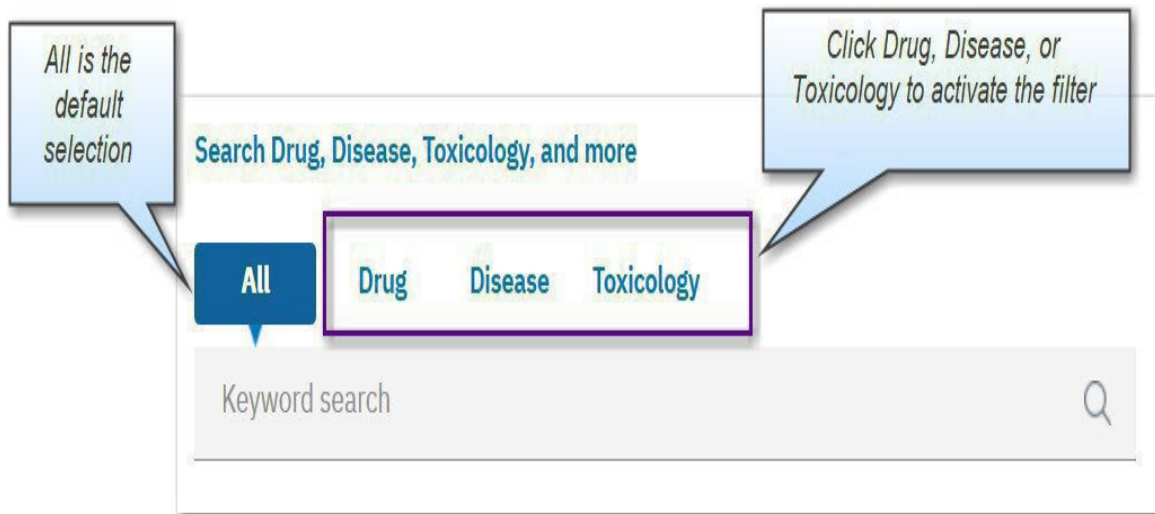
"guifennson"

Please refine your search by trying the following suggestions or entering a new query above:

- Check your spelling.
- Use the suggestions listed in the search dropdown list.

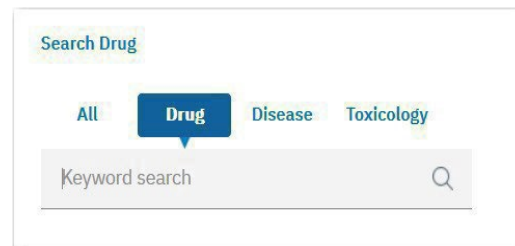
Filtered Searching

By default you can quickly perform one search to get all the relevant results for the content to which you subscribe, or when on the Home Page you can specify a filter option to search specifically within the drug, disease, or toxicology content, which will provide you with more targeted results.



Selecting the Drug filter returns results from the following content sets only:

- DRUGDEX® Detailed Drug Information
- DRUGDEX Drug Consults
- Summary Drug Information
- Martindale
- Index Nominum
- P&T Quik
- Consumer Drug Information
- International drug database (IT-Dialogo sui Farmaci)



Selecting the Disease filter returns results from the following content sets only:

- Disease Emergency Medicine
- Disease General Medicine
- Summary Disease Information
- Emergency Medical Abstracts



Using brand names in a filtered search of the disease content will generally result in fewer results. For example, if the Disease filter is selected, a search for “acetaminophen treatment of choice for fever” will return more results than a search for “tylenol treatment of choice for fever.”

Selecting the Toxicology filter returns results from the following content sets only:

- Summary Toxicology Information
- POISINDEX Managements
- HAZARDEXTX Hazard Managements
- MEDITEXT Medical Managements



Toxicology content generally refers to generic drug names. Using brand names in a filtered search of this content will generally result in fewer results. For example, if the Toxicology filter is selected, a search for “overdose of diphenhydramine” will return more results than a search for “overdose of benadryl.”

Note: The filter is only applied when searching from the Home Page. When you use the *Keyword* search box located in the upper right of all pages except the Home Page it is the same as searching with the *All* filter selected on the Home Page.

Targeted Searches

Several tightly-focused, targeted searches are available for clinicians to quickly gain access to the following highly sought after information:

- List of drugs with a Black Box Warning - See [“Black Box Warning List” on page 71.](#)
- List of DRUGDEX® Drug Consults with comparative tables – See [“Comparative Tables” on page 72.](#)
- List of drugs that sound alike/look alike - See [“Do Not Confuse Drug List” on page 73.](#)
- Drug Classes - See [“Drug Classes” on page 75.](#)
- List of DRUGDEX Drug Consults - See [“Drug Consults” on page 78.](#)
- REMS - List of drugs that have FDA-approved Risk Evaluation and Mitigation Strategies - See [“REMS: List of Drugs With a Risk Evaluation and Mitigation Strategy” on page 79.](#)

Black Box Warning List

Black box warnings are warnings that appear on package inserts for prescription drugs that may cause serious adverse effects. The text of the warning is normally printed within a solid black border to call attention to it; thus the name “black box warning.”

A drug with a black box warning means that studies have shown that the drug carries a significant risk of serious or even life-threatening adverse effects. It is the strongest warning that the Food & Drug Administration (FDA) requires.

Easy access to this list is helpful for medication safety officers and drug use policy coordinators to ensure awareness of special safety issues and develop programs to ensure safe use.


This search can be performed with just one click by using the Targeted Searches shortcuts under *Resources* on the Home Page. See [“Resources \(Targeted Searches\)” on page 7](#). An alphabetical list of all the drugs in Micromedex that have a black box warning is provided.

This search can also be performed with the following steps:

1. Type “BBW”, or begin typing “black box warning” into the *Keyword* search box. Even just typing the first three characters (“bla”) will bring the black box warning into the drop-down suggestion list.

2. Click “black box warning” or “black box warnings” or “BBW” in the drop-down list.

-OR-

Use the **arrow up/down** keys to select “black box warning” or “black box warnings” or “BBW.” Then click the **Search** button() or press the **Enter** key.

3. The list of drugs with black box warnings is provided in alphabetical order as hypertext links.

Black Box Warnings	
Jump To:	A B C D E F G H I J K L M N O P Q R S T U V W
Displaying 67 of 831 results for "Black Box Warnings"	
ABACAVIR	
Abacavir Sulfate	
ABACAVIR SULFATE/LAMIVUDINE	
ABACAVIR SULFATE/LAMIVUDINE/ZIDOVUDINE	
ABACAVIR/DOLUTEGRAVIR/LAMIVUDINE	
ABARELIX	
ABOBOTULINUMTOXINA	

Note: If you print this list, the entire list of drugs with black box warnings will be printed - not just the ones currently displayed.


Comparative Tables

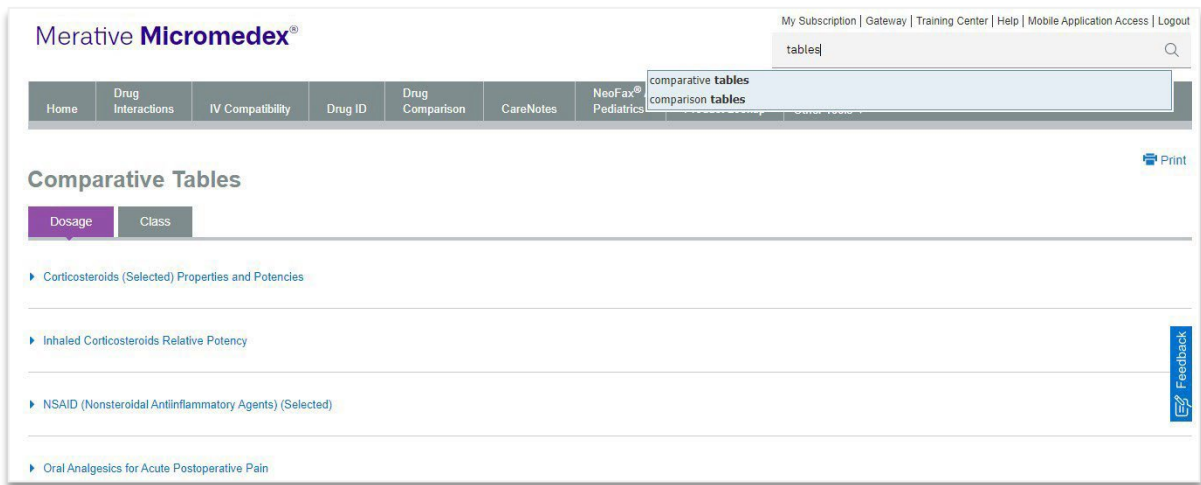
An alphabetical list of all of the Micromedex® DRUGDEX® Drug Consult articles with a comparative table can be accessed with just one click by using the Targeted Searches shortcuts under *Resources* on the Home Page. See [“Resources \(Targeted Searches\)” on page 7](#). These valuable and commonly requested resources are presented by dosage and class. This can be very helpful for clinicians who need to make treatment changes for patients.

This search can also be performed with the following steps:

1. Begin typing "comparative" or "tables" or "comparison" in the *Keyword* search box. The drop-down list makes suggestions.
2. Click “comparative table” or “comparative tables” or “comparison tables” in the drop-down list.

-OR-

Use the **arrow up/down** keys to select “comparative table” or “comparative tables” or “comparison tables.” Then click the **Search** button () or press the **Enter** key.



3. The list of Drug Consults with a comparative table is shown in alphabetical order.
4. Click on a title to open the associated Drug Consults document.

Do Not Confuse Drug List


The National Patient Safety Goal, established by the Joint Commission, requires each accredited organization to identify a list of look-alike or sound-alike drugs used in the organization.

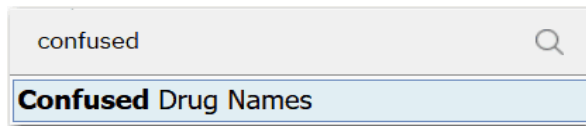
An alphabetical list of confused drug names, including look-alike and sound-alike name pairs can be accessed with just one click by using the Targeted Searches shortcuts under *Resources* on the Home Page. See [“Resources \(Targeted Searches\)” on page 7](#). The list consists of name pairs that have been involved in medication errors. The list also contains the names that appear on the Joint Commission’s list of look-alike and sound-alike names.

This search can also be performed with the following steps:

1. Begin typing any of the following search terms in the search box: “Do Not Confuse”, “Confused Drug Names”, “Look alike sound alike”, “Do Not Confuse List”, “Lookalike/sound alike”. The drop-down list makes suggestions.
2. Click “Confused Drug Names” or “Do Not Confuse” or “Do Not Confuse List” or “Lookalike sound alike” in the drop-down list.

-OR-

Use the **arrow up/down** keys to select “Confused Drug Names” or “Do Not Confuse” or “Do Not Confuse List” or “Look alike sound alike.” Then click the **Search** button () or press the **Enter** key.



A screenshot of a search interface. At the top, there is a search box containing the text "confused" and a magnifying glass icon on the right. Below the search box, a dropdown menu is open, displaying the suggestion "Confused Drug Names" in a blue-highlighted box.

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- The *Do Not Confuse* results are provided. Drug name pairs that are often confused are listed on the same line, in alphabetical order. Tall man lettering is used to further aid in discerning between common look-alike drugs.

Do Not Confuse Drug List	
Jump To: A B C D E F G H I J K L M N O P Q R S T U V W	
Displaying 74 of 925 results for "Do Not Confuse Drug List"	
Drug Name	May be confused with
Abelcet (Amphotericin B Lipid Complex)	amphotericin B (Amphotericin B)
Accupril (Quinapril Hydrochloride)	Aciphex (Rabeprazole Sodium)
acetaZOLAMIDE (Acetazolamide)	acetoHEXAMIDE
Acetic Acid for Irrigation (Acetic Acid)	Glacial Acetic Acid (Acetic Acid)
acetoHEXAMIDE	acetaZOLAMIDE (Acetazolamide)
Aciphex (Rabeprazole Sodium)	Accupril (Quinapril Hydrochloride)

Drug Name	May be confused with
Abelcet (Amphotericin B Lipid Complex)	amphotericin B (Amphotericin B)

DO NOT CONFUSE Abelcet ([Amphotericin B Lipid Complex](#)) **WITH** amphotericin B ([Amphotericin B](#))

- Click any link to open the associated drug landing page.
- To move to a title beginning with a letter from later in the alphabet, use the **Jump To** menu. Click on the letter (or number) link to position the page to the first document that begins with the selected letter.

Note: If you print this list, the entire list of Do Not Conf use drugs will be printed - not just the ones currently displayed.


Drug Classes

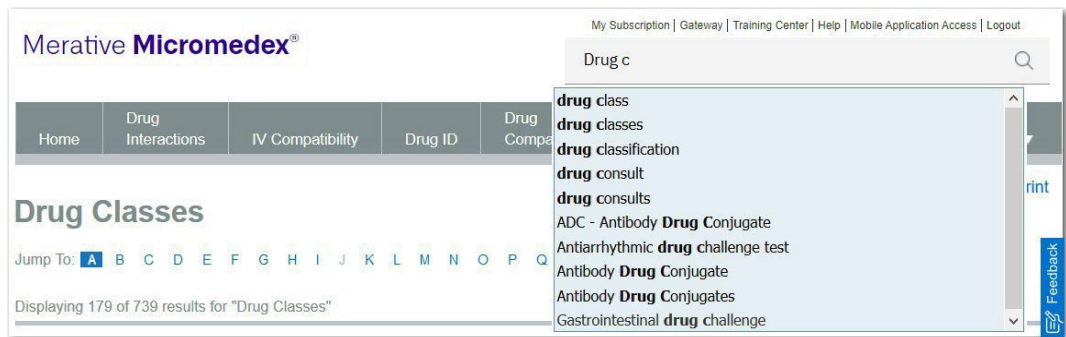
With just one click of the Drug Classes shortcut under *Resources* on the Home Page you can access an alphabetical list of the drug classes contained in Micromedex. You can then browse a list of therapeutic, chemical, and pharmacological classes. This can be very valuable for clinicians when it comes to determining alternative therapy options for a patient. See [“Resources \(Targeted Searches\)” on page 7](#).

This search can also be performed with the following steps:

1. Begin typing "drug class" or "drug classes" or "drug classification" in the *Keyword* search box. The drop-down list makes suggestions.
2. Click "drug class" or "drug classes" or "drug classification" in the drop-down list.

-OR-

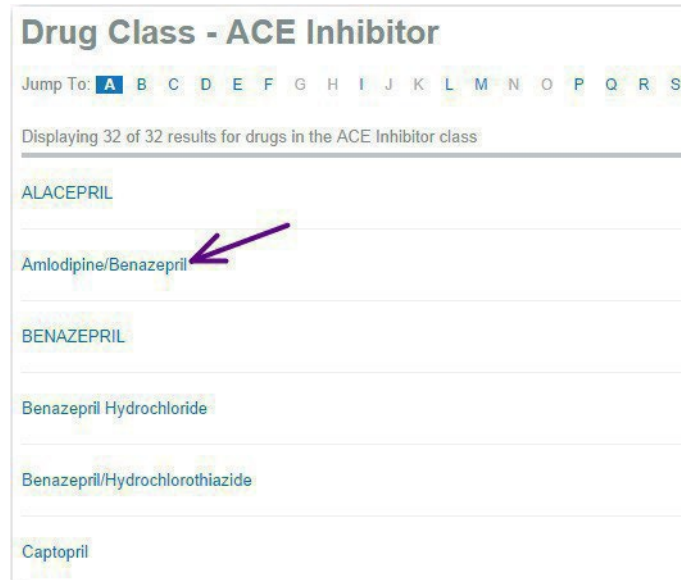
Use the **arrow up/down** keys to select "drug class" or "drug classes" or "drug classification." Then click the **Search** button () or press the **Enter** key.



3. The list of drug classes is provided in alphabetical order.
4. Click a drug class to display the drugs in the class or use the **Jump To:** links to quickly move to a different position in the list of drug classes.

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5. Click a drug to display the associated drug information.



Note: If the drug name is displayed in the list using mixed case letters, clicking on it will display the Summary Drug Information document. If the drug name is displayed using all uppercase letters, clicking on it will display the Detailed Drug Information monograph.

Note: If you print the drug classes list, the entire list will be printed - not just the drug classes currently displayed.

In addition, you can perform a search by a drug class name.

The screenshot shows the Micromedex search interface. At the top, there are navigation links: My Subscription | Gateway | Training Center | Help | Mobile Application Access | Logout. A search bar contains the text "immunological a" with a magnifying glass icon. A dropdown menu is open, showing "Immunological Agent" and "Immunological Agents". A purple arrow points from the search bar to the "Immunological Agent" option in the dropdown.

Below the dropdown, the "Drug Class - Immunological Agent" page is displayed. It features a "Jump To:" section with letters A through Q, where 'A' is highlighted. Below this, it states "Displaying 214 of 214 results for drugs in the Immunological Agent class". A list of drugs is shown, including:

- Abatacept
- Adenovirus Type 4 and Type 7 Vaccine, Live
- Alefacept
- Alemtuzumab
- Anakinra
- ANTHRAX VACCINE
- Anthrax Vaccine Adsorbed


Drug Consults

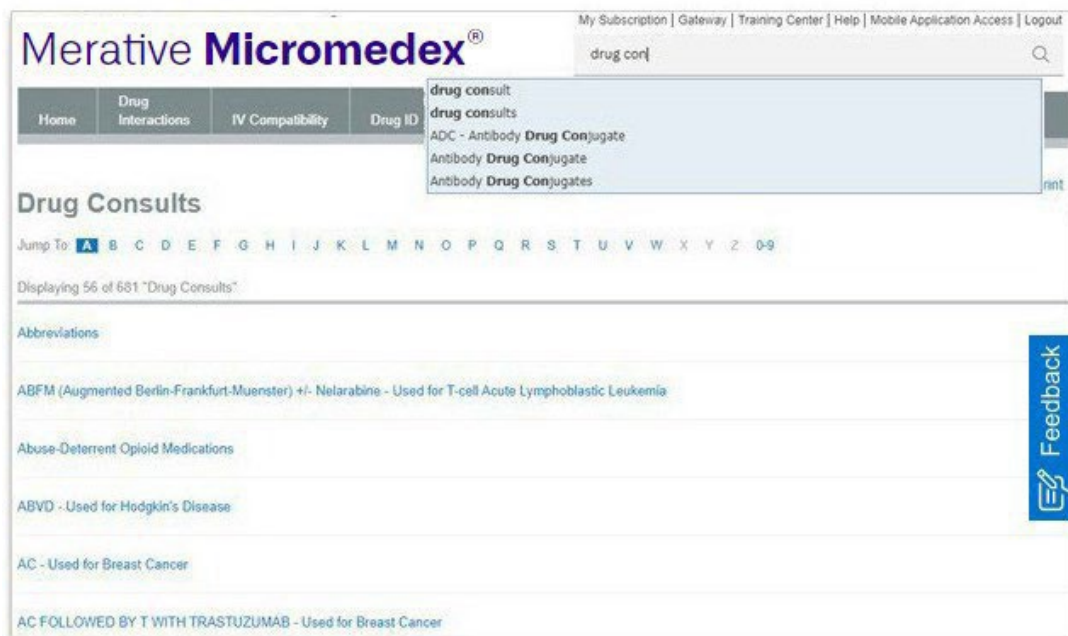
DRUGDEX Drug Consults offer fully referenced, evidence-based articles that cover a wide range of topics on drug therapies and treatment guidelines. An alphabetical list of all the Drug Consults articles available in Micromedex can be accessed with just one click by using the Targeted Searches shortcuts under *Resources* on the Home Page. See [“Resources \(Targeted Searches\)” on page 7.](#)

This search can also be performed with the following steps:

1. Begin typing "consults" or "drug consults" in the *Keyword* search box. The drop-down list makes suggestions.
2. Click “drug consult” or "drug consults" in the drop-down list.

-OR-

Use the **arrow up/down** keys to select “drug consult” or "drug consults." Then click the **Search** button() or press the **Enter** key.



3. The list of Drug Consults is provided in alphabetical order.
4. Click on a title to open the associated Drug Consults document.
5. To move to a title for a specific letter in the alphabet, use the **Jump To:** menu. Click on the letter (or number) link to position the page to the first document that begins with the selected letter.

Note: If you print this list, the entire list of Drug Consults will be printed - not just the ones currently displayed.

REMS: List of Drugs With a Risk Evaluation and Mitigation Strategy

For some FDA-approved drugs the manufacturer and/or the FDA have determined that a Risk Evaluation and Mitigation Strategy (REMS) is necessary to go beyond product labeling to manage risks and thereby ensure that the benefits outweigh the risks. A list of drugs with current REMS requirements can be obtained without leaving the Micromedex workflow to perform a search of the FDA or a manufacturer information source. Just click the REMS shortcut under *Resources* on the Home Page. See [“Resources \(Targeted Searches\)” on page 7](#).

This search can also be performed with the following steps:

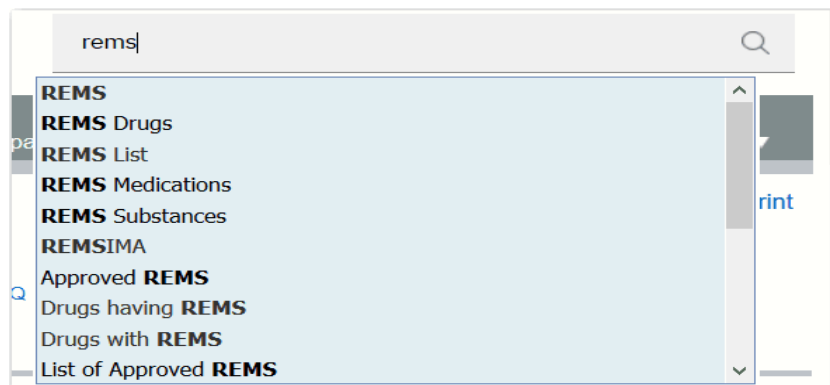
1. Type “REMS” in the *Keyword* search box.
2. Press the **Enter** key.

-OR-

Click “REMS” in the drop-down list.

-OR-

Use the **arrow up/down** keys to select “REMS.” Then click the **Search** button () or press the **Enter** key.



3. The list of drugs with REMS requirements is provided, in alphabetical order, as hypertext links.

REMS	
Jump To: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z 0-9	
Displaying 4 of 72 results for "REMS"	
Albiglutide	Communication Plan
Alosetron Hydrochloride	Elements to Assure Safe Use, Implementation System, Medication Guide
Alvimopan	Communication Plan, Elements to Assure Safe Use, Implementation System
Ambrisentan	Elements to Assure Safe Use, Implementation System, Medication Guide

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- Click the drug name link to open the Quick Answers tab on the landing page positioned in the REMS section of the information. REMS components are listed, as well as links to the US Food and Drug Administration (FDA) Web site for the detailed REMS information available for the drug.

The screenshot displays the Micromedex interface for Alosetron Hydrochloride. At the top, the drug name is prominently displayed. Below it, drug classes (Antidiarrheal, Autonomic, All) and routes (Oral) are listed. A navigation bar includes 'Quick Answers', 'In-Depth Answers', and 'All Results'. The 'Quick Answers' tab is active, showing a sidebar menu with categories like 'Dosing/Administration' and 'Medication Safety'. A purple arrow points from the 'REMS' link in the 'Medication Safety' section to the 'REMS' heading in the main content area. The 'REMS' section includes a 'Summary' with two bullet points and a list of 'REMS Components' such as 'Medication Guide', 'Elements to Assure Safe Use', and 'Implementation System'. A 'Print' icon is visible next to the 'REMS' heading.

- If the drug you are looking for begins with a letter occurring later in the alphabet, click on the **Jump To:** letter link, shown at the top of the list.

Note: If you print this list, the entire list of drugs with REMS requirements will be printed - not just the ones currently displayed.

Salt/Base Forms, Combinations, Kits

When searching on a base in a salt/base form, such as calcium, a Salt/Base Form Results page is displayed with links to allow you to choose the specific salt form. Clicking on a link displays the landing page for that substance. From the landing page there is a drop-down list from which you can also select all salt forms.

The screenshot shows the 'Salt/Base Form Results' page for 'Calcium'. It displays a list of five salt forms: Calcium Acetate, Calcium Carbonate, Calcium Chloride, Calcium Citrate, and Calcium Gluconate. A callout box points to the 'Calcium Carbonate' link, stating 'Click a link to go to the appropriate landing page'. Below this, the landing page for 'Calcium Carbonate' is shown. It includes a dropdown menu for 'Formulary' (set to 'Hospital Formulary') and 'Status' (set to 'Formulary'). It also lists 'Drug Classes' (Antacid, Antacid, Calcium Containing) and 'Routes' (Mucous Membrane, Oral, Sublingual, Topical). A callout box points to a dropdown menu for 'Substance', which lists the same five salt forms, with 'Calcium Carbonate' selected. Below the dropdown, there are tabs for 'Quick Answers', 'In-Depth Answers', and 'All Results'. The 'Quick Answers' tab is active, showing sections for 'Dosing/Administration' (Adult Dosing, Pediatric Dosing, FDA Uses, Non-FDA Uses, Dose Adjustments, Administration, Comparative Efficacy, Place In Therapy) and 'Medication Safety' (Contraindications). The 'Dosing/Administration' section includes an 'Important Note' about orphan drug designation and 'General Dosage Information' regarding RDA and elemental calcium content. A 'Related Results' sidebar on the right lists 'Alternative Medicine', 'Disease', 'Toxicology', 'Drug Consults', 'eMC SmPC (UK)', 'Index Nominum', 'IT- Dialogo Sui Farmaci', 'Martindale', 'Product Lookup - Martindale', 'Product Lookup - RED Book', and 'Product Lookup - Tox & Drug'. A 'Feedback' button is located at the bottom right of the page.

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When searching for a combination drug, such as acetaminophen/codeine phosphate, or a kit, such as norgestrel acetate/estradiol, you are taken directly to the landing page. From the landing page there may be a drop-down list from which you can select individual components of the kit or combination.

The screenshot shows the Micromedex landing page for Acetaminophen/Codeine Phosphate. At the top, the drug name is displayed with a green checkmark. Below it, there are fields for 'Formulary' (Hospital Formulary) and 'Status' (Formulary). Drug classes include Analgesic, Analgesic Combination, Opioid, and All. The route is listed as Oral. A callout box with a purple border and a speech bubble icon points to a dropdown menu labeled 'Substance'. The dropdown menu lists: Acetaminophen/Codeine Phosphate (selected), Acetaminophen, and Codeine Phosphate. Below the search bar are three tabs: 'Quick Answers' (active), 'In-Depth Answers', and 'All Results'. The main content area is divided into three columns. The left column is a navigation menu with categories: 'Dosing/Administration' (containing Adult Dosing, Pediatric Dosing, FDA Uses, Non-FDA Uses, Dose Adjustments, Administration, Comparative Efficacy, Place In Therapy) and 'Medication Safety' (containing Contraindications). The middle column is titled 'Dosing/Administration' and includes a 'Print' icon. It features 'Adult Dosing' with a US flag icon and a link to 'In-Depth Answers'. Under 'General Dosage Information', it states that the FDA recommends no prescribing of products with more than 325 mg of acetaminophen per tablet. Under 'Pain, Mild to moderately severe', it lists dosing: tablets, acetaminophen 300 to 1000 mg/codeine 15 to 60 mg ORALLY every 4 hours as needed; MAX acetaminophen 4000 mg/day; and tablets, acetaminophen 360 mg/codeine 360 mg daily. The right column is titled 'Related Results' and lists links for Disease, Toxicology, Consumer Drug Information, eMC SmPC (UK), Index Nominum, IT- Dialogo Sui Farmaci, Martindale, Product Lookup - Martindale, Product Lookup - RED Book, and Product Lookup - Tox & Drug. A vertical 'Feedback' button is on the far right.

Intermediate Search Results

If your search does not employ one of the other search techniques explained in this chapter, an intermediate search results page will be displayed.

The following example shows the intermediate search results for a very broad search. A search on just the term “flu” finds numerous matches in multiple content sets throughout Micromedex. Since no other parameters (terms or phrases) were included in the search for “flu,” it was not possible to focus the results on a specific type of flu. There were also no other terms in the search that could direct the results to a specific topic or area of information. Therefore, the application returns all possible matches on an intermediate search results page.

The total number of matches found for the search and the search term used are shown at the top of the page.

Search results are ranked by relevance. You can filter the results to only see results for a particular type of content by clicking a link on the left side of the page. Use the numbers at the bottom of the page to move forward and backward through multiple pages of results. The arrows allow you to jump five pages at a time.

The screenshot displays the search results for the term "flu". At the top, it states "2159 results found for: 'flu'". Below this, there is a "Filter by" section on the left with the following categories and counts: All (2159), Drug (1537), Disease (198), Toxicology (173), Lab (15), Alternative Medicine (164), and Reproductive Risk (72). A callout box points to this section with the text: "Filter the results to view only Drug, Disease, Toxicology, Lab, Alternative Medicine, or Reproductive Risk search results".

The main results area shows "1-15 of 2159 Results for 'flu'". The first few results are:

- Avian influenza (Disease: Detailed evidence-based information)
- Seasonal influenza (Disease: Detailed evidence-based information)
- Avian influenza (Disease: Summary topic)
- Seasonal influenza (Disease: Summary topic)
- Avian influenza (Disease: List of essential care interventions (Clinical Checklist®))
- Avian influenza - Prevention & Screening (Disease: Detailed evidence-based information)

 A callout box points to the navigation controls at the bottom of the results list with the text: "Use the numbers and arrows to move forward and backward through the results".

At the bottom of the page, there is a pagination control showing a sequence of numbers: < 1 2 3 4 5 >. The number 1 is highlighted, indicating the current page.

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The first line of each result contains the document title as a link, which goes to the associated landing page (see [“Landing Pages” on page 40](#)) or document.

The second line shows the content type (Drug, Disease, Toxicology, Lab, Alternative Medicine, Reproductive Risk), followed by one of the following identifiers:

- Summary topic - indicates that the title link goes to the Quick Answers tab on the landing page
- Detailed evidence-based information - indicates that the title link goes to the In-Depth Answers tab on the landing page
- Name of a specific database to which the title links

International Drug Searching

Subscribers to international drug databases such as: Italian, United Kingdom, etc. are able to search using local brand names. Search results are displayed on a *Brand Name Results* page, showing local brand name drugs and U.S. drugs with the same brand name.

The manufacturer name is included below the international brand name to assist in discerning between products with identical brand names.

The international brand name drug is displayed as a link and, when clicked, opens the corresponding international drug document.

Links are available on the ingredient(s) for US drugs. When clicked, the corresponding landing page is displayed.

The screenshot shows the 'Brand Name Results' page for a search of 'Naprosyn'. The page includes a filter bar at the top with 'Display: All (15) | United States (2) | Global (3) | Italia (8) | United Kingdom (2)'. Below this is a 'Jump To' navigation bar with letters A through U, where 'N' is highlighted. The main content area is a table with two columns: 'Brand Names' and 'Ingredient(s)'. The table lists several entries for 'Naprosyn' from different countries (US, Global, Italia) and their corresponding ingredients (NAPROXEN, NAPROXEN OR NAPROXEN SODIUM, NAPROXEN SODIUM). For the Italian entries, the brand name is a link to a product document, and the ingredient is also a link to a landing page. Callouts provide instructions: 'Display links allow you to view All results, or just the results for a specific country' points to the filter bar; 'Links on US ingredients open the corresponding drug landing page' points to the ingredient links for US drugs; 'Links on the international drug open the drug product document' points to the brand name links for international drugs; and 'Manufacturer' points to the manufacturer name 'RECORDATI' listed below the international brand names.

Brand Names	Ingredient(s)
Naprosyn (US)	NAPROXEN
Naprosyn (Global)	NAPROXEN
Naprosyn (Global)	NAPROXEN OR NAPROXEN SODIUM
Naprosyn (Global)	NAPROXEN SODIUM
NAPROSYN 10 SUP 250 MG (IT) RECORDATI	NAPROXEN
NAPROSYN 10 SUP 500 MG (IT) RECORDATI	NAPROXEN


Filter Results

Results for both the United States (US) and the subscribed country are shown combined and in alphabetic order on the *Brand Name Results* page. View only results for the subscribed country by clicking on the appropriate **Display** link. View only results for US brand name drugs by clicking on the **United States** link.

PRINTING

The option to print the page or document is available in Micromedex, whether you are viewing a landing page, a full document, intermediate search results or using a tool.

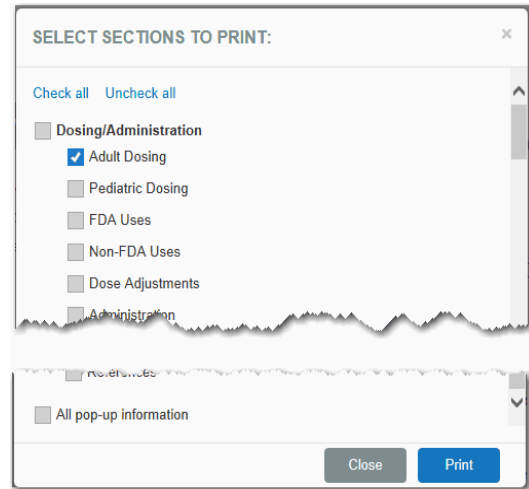
When you are viewing information presented using topics, or sections, you have the option of printing the entire document, or only selected topics.

- Click the **Print** icon ( **Print**) to open the print options.
- The topic you are viewing is shown checked (selected). All topics are listed and can be included in the printed copy.

All pop-up information: Select this

checkbox to include any supporting information, such as: Definitions for Strength of Evidence or Strength of Recommendations, Pregnancy Ratings, Risks, and Warnings.

- When you have selected the desired topics, click the **Print** button to see a preview of the printout. Flag icons identify the sections that contain information from a specific regulatory authority. For more information, see [“Regulatory Authority Information” on page 116](#).
- A typical print dialog opens, allowing you to change print preferences. Click the **Print** button to print the selection.



Note: When printing an intermediate search results page or the All Results tab on the landing page only the results shown on the page are printed.

CHAPTER 5: DRUG INFORMATION

The number of drugs available today is enormous, and the vast amount of information about these drugs can be overwhelming. Micromedex® can help you find current, accurate, and concise drug information you can use with confidence.

Reviewed by international experts, our evidence-based information covers FDA-approved prescription and nonprescription drugs, as well as a subset of Health Canada and European Medicines Agency (EMA) approved prescription drugs. Areas discussed include dosage, black box warnings, pharmacokinetics, cautions, interactions, patient education, adverse effects, comparative efficacy, and toxicology information.

We create a summary monograph and a detailed monograph for each topic. The Summary Drug Information monographs support quick decisions at the point of care, and DRUGDEX Detailed Drug monographs support further research and aid clinicians when making difficult treatment decisions. Because one editorial group creates all the Micromedex content, treatment recommendations are consistent.

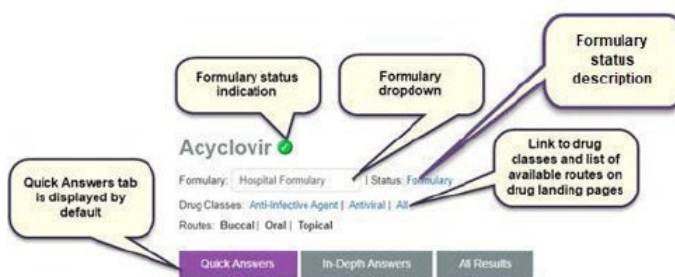
This chapter describes the types of drug information available in Micromedex. For information on how to search in Micromedex see "[Chapter 4: Searching Micromedex®](#)" on [page 37](#).

DRUG LANDING PAGES

For a detailed description on landing pages see [Chapter 4: Landing Pages on page 40](#).

The following drug-specific information is provided on drug landing pages:

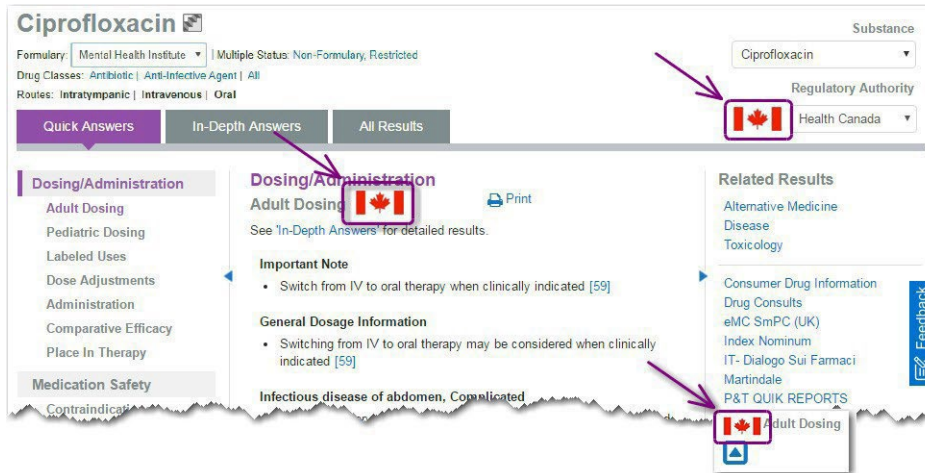
- Available routes
- Links to drug classes associated with the drug. Click a link to see all the drugs in the class.
- Formulary status designated by an icon (Formulary customers only)
The Micromedex® Formulary product provides immediate access to formulary information throughout your facility. It guides prescribing clinicians toward formulary drugs, saving your pharmacists, nurses, and physicians time – and your facility money. Formulary is integrated with Micromedex, so that a drug's designated formulary status displays on the drug landing page in the form of an icon. Examples of formulary status, which are maintained by your facility's formulary administrators and are customizable, include: Formulary, Non-Formulary, Preferred, Restricted. To find out more about the Formulary Status product contact your Client Service Manager or Micromedex Customer Support (see "[Customer Resource Center](#)" on [page ii](#)).



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- Drug information from the Food and Drug Administration (FDA), Health Canada and European Medicines Agency (EMA), if available. Click an item from the **Regulatory Authority** drop-down list to view drug information from a specific regulatory authority.

Note: If drug information is available from only one source, the Regulatory Authority drop-down list is disabled.



A flag identifying the selected regulatory authority displays next to the Regulatory Authority drop-down list and on the middle panel of the Quick Answers and In-Depth Answers tabs. The flag also displays above the back-to-top icon that allows you to return to the top of the document. For more information on the Regulatory Authority feature, see ["Chapter 5: Regulatory Authority Information"](#) on page 116.

SUMMARY DRUG INFORMATION

Summary Drug Information is succinct, actionable at the point-of-care, and designed to get you an answer very quickly. It is displayed on the middle panel of the *Quick Answers* tab on the landing page. The left panel contains links for navigating the sections of the summary monograph. Click on a link to display that section in the middle panel.

For example, a search for "simvastatin" results in the following landing page:

The screenshot shows the Simvastatin drug information page. The left panel has a 'Medication Safety' section highlighted. A callout points to the 'Adverse Effects' link in this section, stating: 'Click a link to display a section of the monograph'. The main content area shows 'Medication Safety Adverse Effects' with a 'Print' icon and a callout stating: 'Text of the Summary Drug Information monograph'. The right panel has a 'Feedback' icon and a callout stating: 'Scroll down and a back-to-top icon will display in the lower right of the page'. The main content area lists common and serious adverse effects.

Medication Safety

Adverse Effects

See 'In-Depth Answers' for detailed results.

Common

- **Gastrointestinal:** Abdominal pain (7.3%), Constipation (6.6%), Nausea (5.4%)
- **Neurologic:** Headache (2.5% to 7.4%)
- **Respiratory:** Upper respiratory infection (9%)

Serious

- **Hepatic:** Cholestatic hepatitis, Increased liver enzymes (approximately 1%), Jaundice, Liver failure
- **Musculoskeletal:** Compartment syndrome of lower leg, Disorder of muscle (20 mg/day, 0.02% to 0.03%; 40 mg/day, 0.08%; 80 mg/day, 0.61% to 0.9%), Rhabdomyolysis (20 mg/day, 0%; 80 mg/day, 0.4%), Rupture of tendon

Clicking the links for the following sections in the left panel displays the information with a unique presentation, and they are explained in this chapter.

- [“Single Drug Interactions” on page 89](#)
- [“Single IV Compatibility” on page 95](#)
- [“Additional Information” on page 103](#)
- [“Trade Names” on page 104](#)
- [“Patient Education” on page 105](#)
- [“References” on page 108](#)

Single Drug Interactions

Clicking the **Drug Interactions (single)** link under Medication Safety in the left panel checks the currently viewed drug for the following types of interactions:

- drug
- food
- ethanol
- lab
- tobacco

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- pregnancy
- lactation

Simvastatin NF

Formulary: Mental Health Institute | Status: Non-Formulary

Drug Classes: Antihyperlipidemic | Cardiovascular Agent | All

Routes: Oral

Quick Answers | In-Depth Answers | All Results

Medication Safety Print

Drug Interactions (single)

See 'In-Depth Answers' for detailed results.

View multiple drug interactions

Refine by: Severity: All | Documentation: All

Jump To: [Drug-Drug \(94\)](#) | [ALLERGY \(0\)](#) | [FOOD \(2\)](#) | [ETHANOL \(0\)](#) | [LAB \(0\)](#) | [TOBACCO \(0\)](#) | [PREGNANCY \(1\)](#) | [LACTATION \(1\)](#)

Drug-Drug Interactions (94)

Drugs:	Severity:	Documentation:	Summary:
POSACONAZOLE [Systemic] -- SIMVASTATIN [Systemic]	Contraindicated	Excellent	Concurrent use of POSACONAZOLE and SIMVASTATIN may result in increased simvastatin plasma concentrations and increased risk of myopathy or rhabdomyolysis.

Drug interactions for the drug are grouped by interaction type. Interactions within each type are sorted by severity, displaying the most severe first. Use the **Jump To:** links at the top of the page to go to specific interaction type.

Jump To: [Drug-Drug \(88\)](#) | [ALLERGY \(0\)](#) | [FOOD \(2\)](#) | [ETHANOL \(0\)](#) | [LAB \(0\)](#) | [TOBACCO \(0\)](#) | [PREGNANCY \(1\)](#) | [LACTATION \(1\)](#)

The original drug and the interacting agent are shown in the first column, followed by the severity and documentation ratings. The summary column displays brief, high-level interaction information.

When an interaction occurs within a class or group of drugs, the group or class displays as an active link adjacent the interaction. Click the link to expand the group or class.

Drug-Drug Interactions (26)			
Drugs:	Severity:	Documentation:	Summary:
DIGITALIS GLYCOSIDES -- THIAZIDE DIURETICS Bendroflumethiazide interact(s) with: • Interacting substances	Major	Excellent	Concurrent use of DIGITALIS GLYCOSIDES and THIAZIDE DIURETICS may result in digitalis toxicity (nausea, vomiting, arrhythmias).
DOFETILIDE -- DIURETICS	Major	Good	Concurrent use of DOFETILIDE and DIURETICS may result in an increased risk of cardiotoxicity (QT prolongation, torsades de pointes, cardiac arrest).

Complete Drug Interactions subscribers are able to view additional interaction information by clicking the link on the drug name to open interactions details. Additional information may include: clinical management, onset, probable mechanism, literature summaries, and references for this interaction.

Drug-Drug Interactions (88)			
Drugs:	Severity:	Documentation:	Summary:
POSACONAZOLE [Systemic] -- SIMVASTATIN [Systemic]	Contraindicated	Excellent	Concurrent use of POSACONAZOLE and SIMVASTATIN may result in increased simvastatin plasma concentrations and increased risk of myopathy or rhabdomyolysis.
SIMVASTATIN [Systemic] ERYTHROMYCIN LACTONATE [Systemic]	Contraindicated	Excellent	Concurrent use of ERYTHROMYCIN LACTONATE and SIMVASTATIN may result in increased simvastatin plasma concentrations and increased risk of myopathy or rhabdomyolysis.
ITRACONAZOLE [Systemic] -- SIMVASTATIN [Systemic]	Contraindicated	Excellent	Concurrent use of ITRACONAZOLE and SIMVASTATIN may result in increased simvastatin plasma concentrations and increased risk of myopathy or rhabdomyolysis.

INTERACTION DETAIL

Warning:
Concurrent use of POSACONAZOLE and SIMVASTATIN may result in increased simvastatin plasma concentrations and increased risk of myopathy or rhabdomyolysis.

Clinical Management:
Concomitant use of posaconazole and simvastatin is contraindicated as this has resulted in an approximately 10-fold increase in simvastatin plasma concentrations, which may lead to rhabdomyolysis (Prod Info NOXAFIL® oral suspension, 2012; Prod Info ZOCOR® oral tablets, 2012). If posaconazole therapy is necessary, suspend simvastatin during the course of treatment (Prod Info ZOCOR® oral tablets, 2012).

Onset:
Not Specified

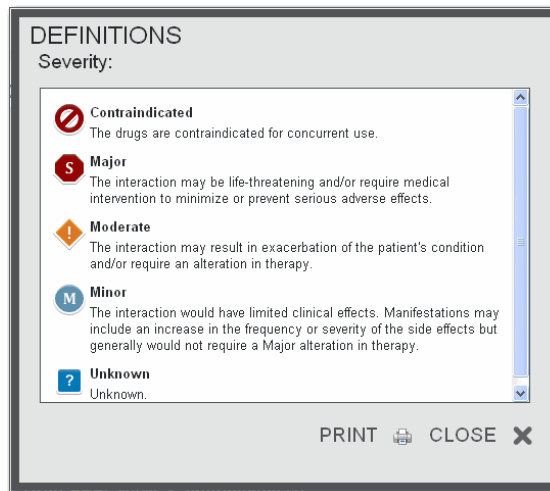
Severity:
Contraindicated

Documentation:
Excellent

PRINT CLOSE

Interaction Severities

Click on any of the Severity icons to open the full legend with the full definition of each severity.



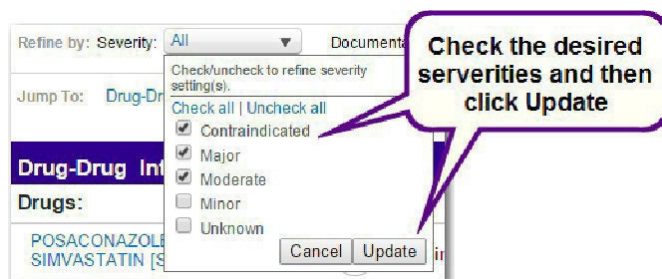
You can also hover your mouse over the Severity legend at the bottom of the page.

- *Contraindicated* - The drugs are contraindicated for concurrent use.
- *Major* - The interaction may be life-threatening and/or require medical intervention to minimize or prevent serious adverse effects.
- *Moderate* - The interaction may result in an exacerbation of the patient's condition and/or require an alteration in therapy.
- *Minor* - The interaction would have limited clinical effects. Manifestations may include an increase in the frequency or severity of side effects but generally would not require a major alteration in therapy.
- *Unknown* - Unknown.

Filter Severities

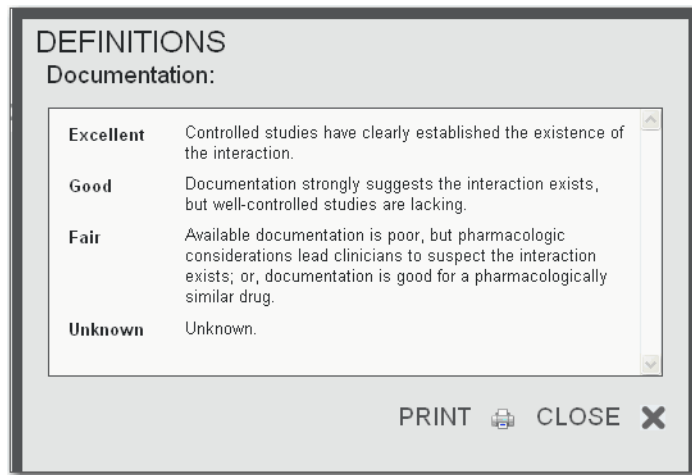
By default, all Severities are displayed. To filter results for selected severities, select the levels desired from the **Severity** drop-down menu at the top of the page. Check the boxes for the desired severities, then click the **Update** button.

After refining the selections, the title of the drop-down changes from 'All' to '(#) Selected', and only the severities chosen display on the page.



Documentation Ratings

Click on any of the Documentation links to open the full legend with the definition of each documentation rating.



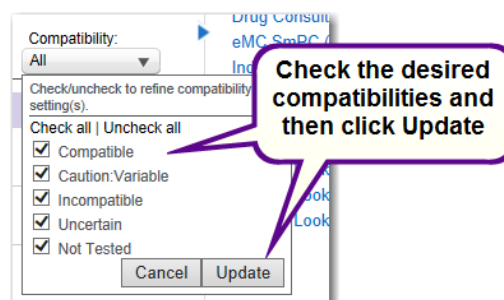
You can also hover your mouse over the Documentation legend at the bottom of the page.

- *Excellent* - Controlled studies have clearly established the existence of the interaction.
- *Good* - Documentation strongly suggests the interactions exists, but well-controlled studies are lacking.
- *Fair* - Available documentation is poor, but pharmacologic considerations lead clinicians to suspect the interaction exists; or, documentation is good for a pharmacologically similar drug.
- *Unknown* - Unknown

Filter Documentation Ratings

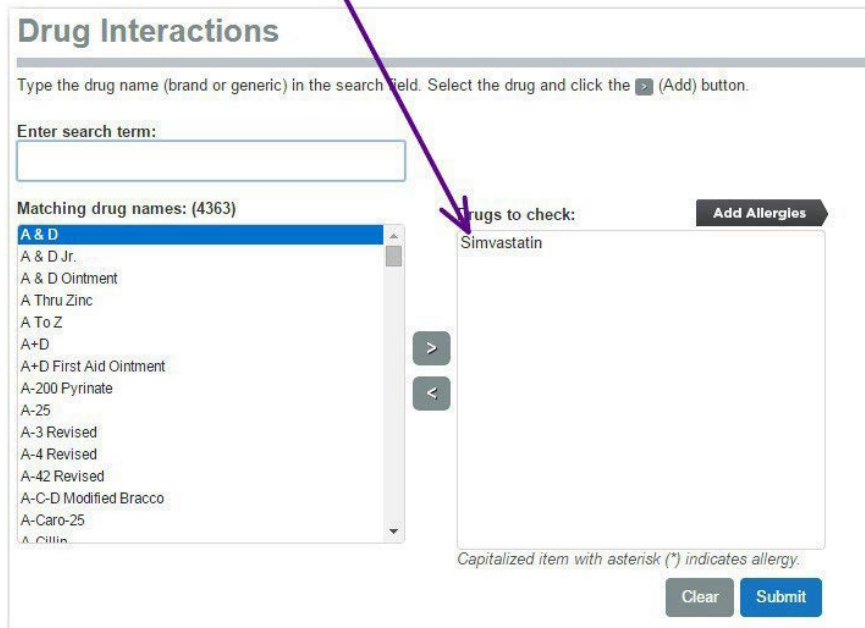
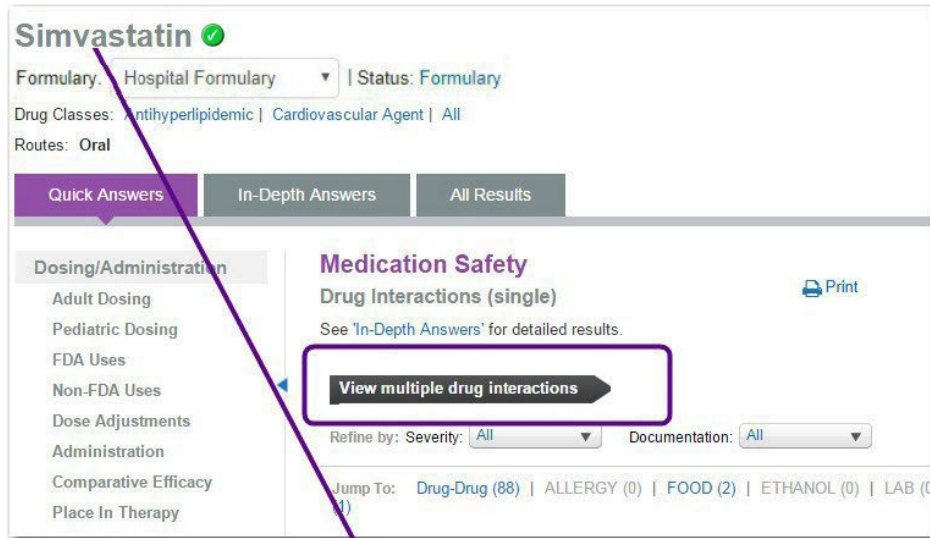
By default, all Documentation Ratings are displayed. To filter results for selected ratings, select the levels desired from the **Documentation** drop-down menu at the top of the page. Check the boxes for the desired ratings, then click the **Update** button.

After refining the selections, the title of the drop-down changes from 'All' to '(#) Selected', and only the documentation ratings chosen display on the page.



Multiple Drug Interactions

To access the Drug Interactions tool for checking multiple drugs for interactions click the **View multiple drug interactions** button at the top of the page. The Drug Interactions tool is displayed, and your drug is automatically added to the *Drugs to check* list.



For more information on the Drug Interactions tool see ["Chapter 11: Drug Interactions Tool" on page 167.](#)

Single IV Compatibility

Clicking the **IV Compatibility (single)** link under Medication Safety in the left panel checks the drug for compatibility in common solutions. Compatibility information with proven data to support safe decisions for administering injectable drugs in combination is quickly provided.

Using information from leading IV compatibility expert, Lawrence Trissel, MS, FASHP, this feature presents results for Solution, Y-Site, and Admixture administration. Customers with subscriptions to Complete IV Compatibility also have results for Syringe and TPN/TNA compatibility.

The screenshot displays the 'IV Compatibility (single)' interface. On the left, a sidebar lists various medication safety topics, with 'IV Compatibility (single)' highlighted. The main content area features a 'Check multiple IV compatibility' button and a 'Solution' tab. Below this, a table lists common solutions with their compatibility status indicated by icons and text.

Solution	Compatibility Status	Label
D5W (D5W-Dextrose 5%)	Green checkmark icon	Compatible
D10W (Dextrose 10%)	Blue minus icon	Not Tested
D5LR (Dextrose 5% in lactated Ringers)	Blue minus icon	Not Tested
D5NS (Dextrose 5% in sodium chloride 0.9%)	Blue minus icon	Not Tested
D5W - 1/2 NS (Dextrose 5% in sodium chloride 0.45%)	Green checkmark icon	Compatible
NS (Normal saline- Sodium chloride 0.9%)	Green checkmark icon	Compatible

Compatibility is denoted by an icon and simple description. The full descriptions follow:

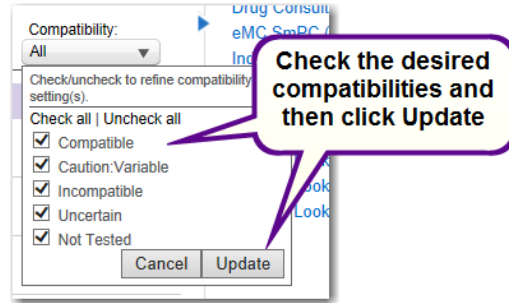
- *Compatible* - All results determined these items are compatible
- *Caution: Variable* - Study results show the compatibility of the pair is variable
- *Incompatible* - All studies determined these items are incompatible
- *Uncertain* - Study results were inconclusive, compatibility was not determined
- *Not Tested* - Compatibility has not been tested

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Filtering Results

By default, all compatibilities are displayed. To filter results for selected compatibilities, select the compatibilities desired from the **Compatibility** drop-down menu at the top of the page. Check the boxes for the desired compatibilities, then click the **Update** button.

After refining the selections, the title of the drop-down changes from 'All' to '(#) Selected', and only the compatibilities chosen display on the page.



Solution Overview

Solution compatibility is calculated based on common and other typical IV solutions.

Common Solutions:

- D5W - Dextrose 5%
- D10W - Dextrose 10%
- D5LR - Dextrose 5% in lactated Ringers
- D5NS - Dextrose 5% in sodium chloride 0.9%
- D5W - 1/2 NS - Dextrose 5% in sodium chloride 0.45%
- NS - Normal saline - sodium chloride 0.9%
- 1/2 NS - sodium chloride 0.45%.
- Lactated Ringer's Injection
- Ringer's injection

Where detailed results are available, the solution is shown as an active link. Click the solution link to view the additional information. References for the information can be found by clicking the numbered link.

The screenshot shows a web interface with a 'Solution' tab selected. Below the tab, there is a list of 'Common Solutions' including D5W (D5W-Dextrose 5%), D10W (Dextrose 10%), D5LR (Dextrose 5%), D5NS (Dextrose 5%), D5W - 1/2 NS (De...), and D5W (Dextrose 5%). The 'D5W (D5W-Dextrose 5%)' solution is highlighted with a green checkmark and the word 'Compatible'. An 'IV COMPATIBILITY DETAIL' window is overlaid on the page, showing a table with the following data:

Drug 1	Drug 2	Status	Information	Test Parameters
Diltiazem hydrochloride 0.05mg/mL (50 mcg/mL) Goedecke	D5W-Dextrose 5% See Container	Compatible	Physical Compatibility: Physically compatible. No visible haze or particulate formation, color change, or gas evolution.	Reference: 2289 Study Period: 24 hours. Method: Visual observation and HPLC analysis of drug concentrations.

A reference popup window is open, displaying the following text:

REFERENCE: [2289]
Zeldler C, Dettmerring D, Schrammer W, et al. Compatibility of various drugs used in intensive care medicine in polyethylene, PVC, and glass infusion containers. Eur Hosp Pharm. 1999. 5: 106-10.

At the bottom right of the popup window, there are 'PRINT' and 'CLOSE' buttons.

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Y-site Overview

Overview information for single drug Y-Site compatibility is shown alphabetically by drug name, with the associated compatibility icon and description.

Click the drug name link to view a pop-up with the compatibility details, which are shown in a five-column table.

IV COMPATIBILITY DETAIL

Drug 1	Drug 2	Status	Information	Test Parameters
Acetazolamide sodium 100mg/mL in Reconstituted solution undiluted Lederle Laboratories	Diltiazem hydrochloride 5mg/mL in Undiluted Marion Merrell Dow	 Incompatible	Physical Compatibility: Physically incompatible. Precipitation occurs. Storage: Ambient conditions.	Reference: 1807 Study Period: Immediate observation. Method: Visual observation. Container: Tested in sample containers and also co-infused through the same IV line.
Acetazolamide sodium 100mg/mL in Reconstituted solution undiluted Lederle	Diltiazem hydrochloride 1mg/mL in Normal saline- Sodium chloride 0.9% Marion Merrell Dow	 Compatible	Physical Compatibility: Physically compatible. No visible haze or particulate formation, color changes.	Reference: 1807 Gayed AA, Keshary PR, Hinkle RI: Visual compatibility of diltiazem injection with various

PRINT CLOSE

- **Drug 1** - contains the drug name, the concentration, the solution used as the vehicle, and the manufacturer's name
- **Drug 2** - shows the secondary drug name, concentration, the solution used as the vehicle, and manufacturer's name
- **Status** - displays the compatibility result icon and description
- **Information** - displays the physical compatibility, chemical stability (if applicable), and storage information
- **Test Parameters** - contains a reference link, the study period, the study methods, and the container information for this particular combination
- **Notes** for the test (if applicable) are shown at the top of the detailed study information

Admixture Overview

Overview information for single drug admixture compatibility is shown alphabetically by drug name, with the associated compatibility icon and description.

Click the drug name link to view the pop-up with the compatibility details, which are shown in a five-column table.

The screenshot shows a navigation menu with tabs for Solution, Y-Site, Admixture (selected), Syringe, and TPN/TNA. A dropdown menu for Compatibility is set to All. Below the menu, a list of admixtures is shown, with Meropenem and Ranitidine hydrochloride visible. A warning icon and the text 'Caution: Variable' are present. A detailed view for 'IV COMPATIBILITY DETAIL' is open, showing two rows of drug combinations. The first row shows Doxycycline hyclate (0.2mg/mL, Roerig) and Meropenem (1mg/mL, Zeneca Pharmaceuticals) as compatible. The second row shows Doxycycline hyclate (0.2mg/mL, Roerig) and Meropenem (20mg/mL, Zeneca Pharmaceuticals) as incompatible. Each row includes a status icon, a detailed information section, and test parameters.

Drug 1	Drug 2	Status	Information	Test Parameters
Doxycycline hyclate 0.2mg/mL Roerig	Meropenem 1mg/mL Zeneca Pharmaceuticals	Compatible Normal saline- Sodium chloride 0.9% Baxter Healthcare Corporation	Physical Compatibility: Physically compatible. No visible haze or particulate formation, color change, or gas evolution. Storage: Room temperature exposed to fluorescent light.	Reference: 1994 Study Period: 4 hours. Method: Visual observation. Container: Polyvinyl chloride (PVC) infusion bags.
Doxycycline hyclate 0.2mg/mL Roerig	Meropenem 20mg/mL Zeneca Pharmaceuticals	Incompatible Normal saline-	Physical Compatibility: Physically incompatible. A brown discoloration appeared within 1 hour after mixing.	Reference: 1994 Study Period: 4 hours. Method: Visual observation.

PRINT CLOSE

- **Drug 1** contains the drug name, the concentration, and the manufacturer's name
- **Drug 2** shows the secondary drug name, concentration, and manufacturer's name
- **Status** displays the compatibility result icon and description
- **Information** displays the physical compatibility, chemical stability (if applicable), and storage information
- **Test Parameters** contains a reference link, the study period, the study methods, and the container information for this particular combination
- **Notes** for the test (if applicable) are shown at the top of the detailed study information

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Syringe Overview (available to Complete IV Compatibility subscribers only)

Overview information for single drug syringe compatibility is shown alphabetically by drug name, with the associated compatibility icon and description.

Click the drug name link to view the pop-up with the compatibility details, which are shown in a five-column table.

Drug 1	Drug 2	Status	Information	Test Parameters
Doxapram hydrochloride 400mg/20 mL in' Undiluted A. H. Robins Company, Inc.	Doxycycline hyclate 100mg/5 mL in' Reconstituted solution undiluted Manufacturer Unspecified	 Compatible	Physical Compatibility: Physically compatible. No visible haze or particulate formation, color change, or gas evolution. Chemical Stability: Chemically stable. No doxapram hydrochloride loss occurred within the study period. Doxycycline hyclate concentration was not tested. Storage: Not specified.	Reference: 1177 Study Period:24 hours. Method: Visual observation and HPLC analysis of doxapram hydrochloride concentration. Container:Not specified.

Powered by Trisessel's™ 2 Clinical Pharmaceutics Database (Parenteral Compatibility).

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PRINT CLOSE

- **Drug 1** contains the drug name, the concentration, the solution used as a diluent, and the manufacturer's name
- **Drug 2** shows the secondary drug name, concentration, the solution used as a diluent, and manufacturer's name
- **Status** column displays the compatibility result icon and description
- **Information** displays the physical compatibility, chemical stability (if applicable), and storage information
- **Test Parameters** contains a reference link, the study period, the study methods, and the container information for this particular combination
- **Notes** for the test (if applicable) are shown at the top of the detailed study information

TPN/TNA Overview (available to Complete IV Compatibility subscribers only)

Overview information for single drug TPN (2-in-1) (total parenteral nutrition) is shown first, followed by TNA (3-in-1 (total nutrient admixture compatibility).

Note: TPN and TNA results are not result type specific. They can be a Y-Site, Solution, or Admixture result. Results are composed of all compatibility tests where the drug name searched is being included with a TPN or TNA solution.

Within each TPN or TNA section, the results are sorted alphabetically by the TPN or TNA admixture name, with each associated compatibility icon and description, followed by high-level notes, including composition of the TPN/TNA on these tests.

Click the drug concentration link to view the details of these tests.

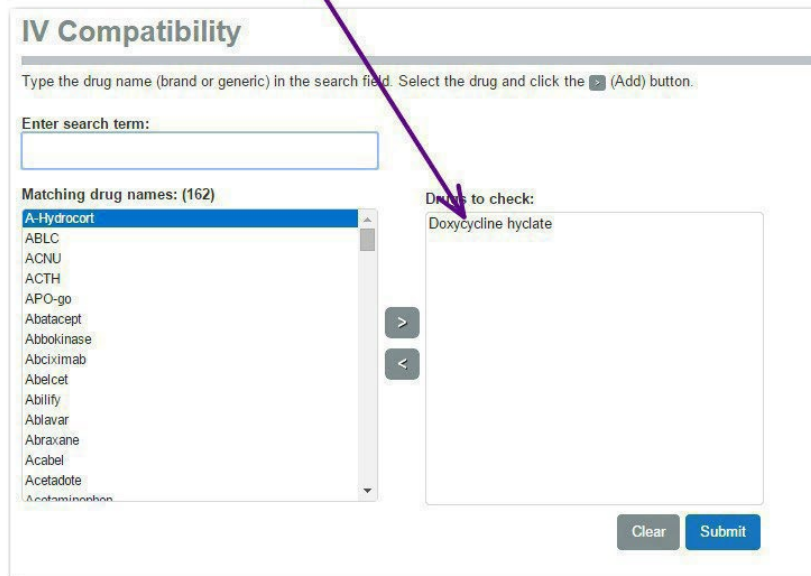
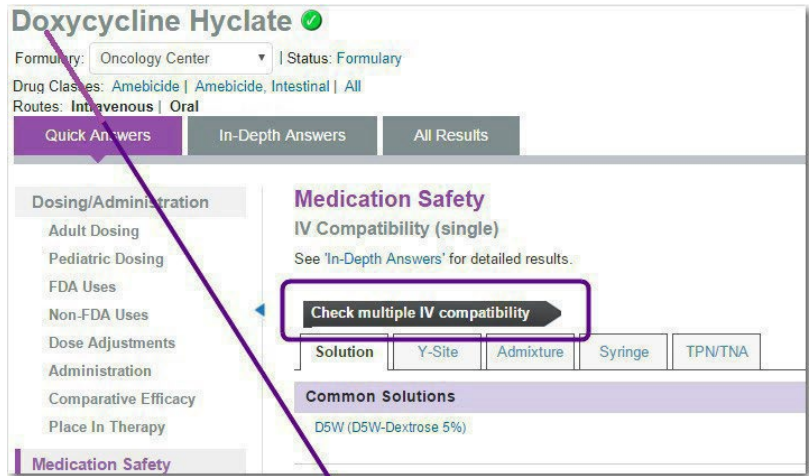
The screenshot displays a web interface for drug compatibility information. At the top, there are navigation tabs: Solution, Y-Site, Admixture, Syringe, and TPN/TNA. A dropdown menu for 'Compatibility' is set to 'All'. Below the tabs, the main content area is titled 'TPN (2-in-1)'. It contains a 'Notes' section with two paragraphs describing the evaluation of TPN formulas based on FreAmine III. A link '1 mg/mL' is highlighted with a purple arrow. To the right, there is a green checkmark icon and the text 'Compatible Y-Site'. Below this, a detailed window titled 'IV COMPATIBILITY DETAIL' is open. This window contains a table with the following data:

Drug Name	Concentration	Physical Compatibility	Storage	Reference
FreAmineIII	1 mg/mL in D5W- Lyphomed	Physically compatible. No visible changes and no change in the measured haze level or particulates.	Room temperature of 23 °C exposed to fluorescent light.	2109f
Doxycycline hyclate	1 mg/mL in D5W- Lyphomed			
Lyphomed				

Additional information in the detail window includes a 'Study Period' of 4 hours, a 'Method' of visual and electronic measurement of haze and particulates, and a 'Container' of simulated Y-site administration in glass test tubes. At the bottom right of the detail window, there are 'PRINT' and 'CLOSE' buttons.

Multiple Drugs IV Compatibility

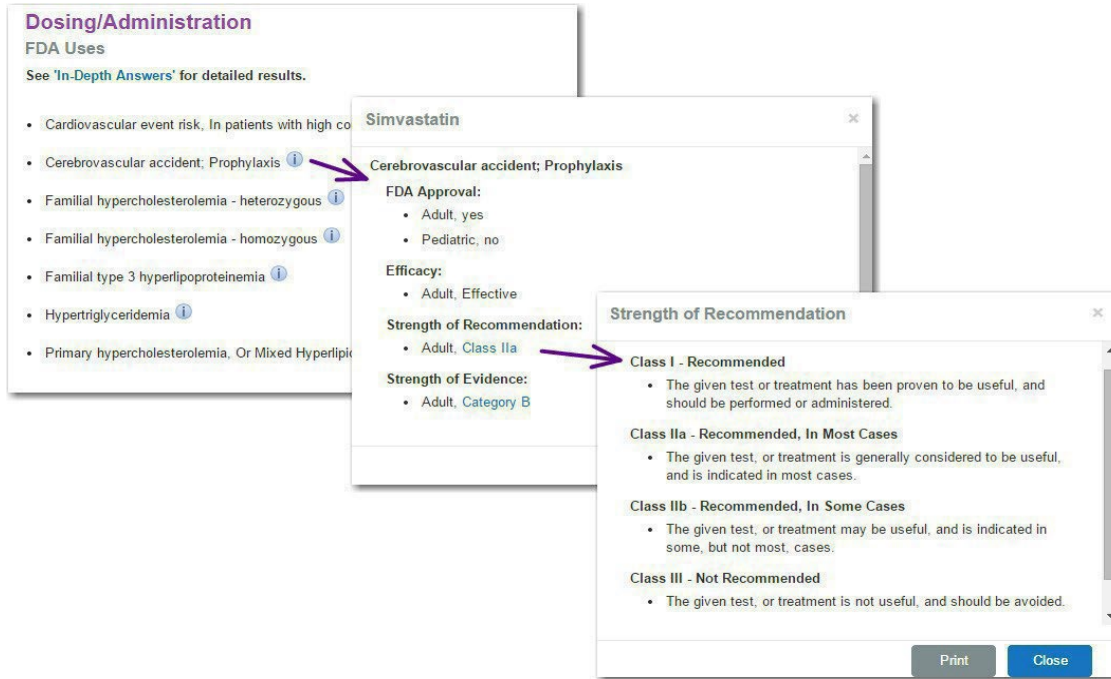
To access the IV Compatibility tool for checking compatibility for multiple drugs click the **Check multiple IV compatibility** button at the top of the page. The IV Compatibility tool is displayed, and your drug is automatically added to the *Drugs to check* list.



For more information on the IV Compatibility tool see ["Chapter 12: IV Compatibility Tool" on page 175.](#)

Additional Information

Links and infobutton icons within Summary Drug Information mean that more information exists. Click the link or icon to view the information. Examples are definitions for Strength of Evidence, Strength of Recommendation, and Pregnancy and Lactation Categories. This information is presented in a pop-up box that can be printed if desired.



Trade Names

It is easy to display a list of all the trade names for the generic drug. In the left panel under About click the **Trade Names** link. Then click the All Trade Names link. The Tox& Drug Product Lookup tool is displayed with a list of brand name products containing the generic drug from the original landing page.

The screenshot illustrates the navigation process. In the top-left panel, the 'About' section is expanded, and 'Trade Names' is selected. Below it, the 'All Trade Names' link is highlighted with a red box. A red arrow points from this link to the 'Trade Names' link in the bottom-left panel, which is also highlighted with a red box. Another red arrow points from the 'All Trade Names' link to the 'Tox & Drug Product / Substance Results' page. This page shows a search for 'Simvastatin' under the 'Active Ingredient' filter. The search results table lists products like Actalipid (FM) and Adipur (FM). To the right of the table, there is a detailed view for 'Actalipid (FM)' including the Micromedex Product ID (8633749 - 10/20) and a link to 'Toxicology Documentation'. A 'Print' button is also visible.

Name	Active Ingredient	Physical Description	Company	AAPCC
1. Actalipid (FM)	Simvastatin	(Form Not Given)	Actavis, Port.	
2. Adipur (FM)	Simvastatin	(Form Not Given)	Medika, Switz.	
3. Mardel	Simvastatin	(Form Not Given)	Mylan, Philine	

Actalipid (FM)
Micromedex Product ID
8633749 - 10/20
[Toxicology Documentation](#)

Patient Education

Medication counseling is an important aspect of the HCAHPS survey, which requires patient communication in the inpatient setting. The Patient Education section of a drug landing page provides a focused list of the most important factors to discuss with a patient, such as common or serious adverse effects, special administration instructions, and key warnings and monitoring recommendations.

Click on the **Medication Counseling** link under *Patient Education* in the left panel.

The screenshot displays the Micromedex interface for Metformin Hydrochloride. The top section includes the drug name, formulary status (Hospital Formulary), and drug classes (Antidiabetic, Biguanide). Below this are tabs for Quick Answers, In-Depth Answers, and All Results. The main content area is divided into sections: Dosing/Administration, Patient Teaching Medication Consulting, Medication Safety, Toxicology, and About. The Patient Education section is expanded, showing Medication Counseling as the selected option. A purple arrow points from the Medication Counseling link in the Patient Education sidebar to the corresponding section in the main content area. The Medication Consulting section contains a list of patient education points, such as 'Drug may cause diarrhea, dyspepsia, flatulence, nausea, vomiting, hyper- or hypoglycemia, or asthenia.' and 'Instruct patient to report signs/symptoms of lactic acidosis (nausea, vomiting, abdominal pain, tachypnea). Elderly patients (80 years and older) are at increased risk.'

In addition, if you subscribe to Micromedex® CareNotes®, you can link directly to the patient handouts for the drug. In the left panel under *Patient Education* click the **Patient Handouts** link. Then click the drug name and route link. The CareNotes application is opened to the list of applicable Medication Instructions.

The image shows a navigation menu on the left and a search results page on the right. The navigation menu includes sections for Dosing/Administration, Medication Safety, Patient Education, and Toxicology. The 'Patient Education' section is expanded, showing 'Patient Handouts' selected. A purple box highlights 'Simvastatin (Oral route, Tablet)' in the 'Patient Teaching' area, with an arrow pointing to the search results page. The search results page shows 'Merative Micromedex® CareNotes®' and a search for 'Simvastatin' with 4 drug titles listed.

Dosing/Administration

- Adult Dosing
- Pediatric Dosing
- FDA Uses
- Non-FDA Uses
- Dose Adjustments
- Administration
- Comparative Efficacy
- Place In Therapy

Medication Safety

Patient Education

- Medication Counseling
- Patient Handouts**

Toxicology

- Clinical Effects
- Range of Toxicity
- Treatment

Patient Teaching

Patient Handouts

See 'In-Depth Answers' for detailed results.

Simvastatin (Oral route, Tablet)

Merative **Micromedex® CareNotes®**

Keyword Search | Hot Lists | Care and Condition Titles | Drug Titles | Lab Titles | Conversion

Location: None

1 Search → 2 **Select Titles** → 3 Select Documents → 4 Customize (optional) → 5 Print

Your Search: Simvastatin

Go To: 1 Care and Condition Titles (0 titles) | 1 **Drug Titles (4 titles)** | 1 Lab Titles (0 titles)

Drug Titles: (4 titles)

- Ezetimibe/Simvastatin (Oral) (Tablet) 🔍
- Simvastatin/Niacin (Oral) (Tablet, Extended Release) 🔍
- Simvastatin (Oral) (Tablet) 🔍
- Sitagliptin/Simvastatin (Oral) (Tablet) 🔍

If you do not have access to CareNotes, click on the **In-depth Answers** link to display a Patient Handout within the detailed drug information, which can be printed for the patient.

The image shows a multi-step navigation process in a drug information system. At the top, a sidebar lists various drug information categories. The 'Patient Teaching' section is highlighted, with a box around the 'Patient Handouts' link and a note: 'See 'In-Depth Answers' for detailed results.' Below this, the 'Patient Education' section is shown, with a box around the 'Patient Handouts' link. At the bottom, the 'In-Depth Answers' tab is selected, displaying a detailed patient handout for Simvastatin. The handout includes sections for 'Treats high cholesterol and triglyceride levels', 'When This Medicine Should Not Be Used', and 'How to Use This Medicine: Tablet'. Navigation links for 'View Full Document' and 'Print' are visible in the top right of the handout area.

Dosing/Administration

- Adult Dosing
- Pediatric Dosing
- FDA Uses
- Non-FDA Uses
- Dose Adjustments
- Administration
- Comparative Efficacy
- Place In Therapy

Medication Safety

Patient Teaching

Patient Handouts

See 'In-Depth Answers' for detailed results.

Simvastatin (Oral route, Tablet)

Patient Education

- Medication Counseling
- Patient Handouts**

Toxicology

- Clinical Effects
- Range of Toxicity
- Treatment

In-Depth Answers | All Results

Patient Education [View Full Document](#)

Patient Handouts [Print](#)

See 'Quick Answers' for summary results.

A) Simvastatin (By mouth)
Simvastatin

Treats high cholesterol and triglyceride levels. May reduce the risk of heart attack, stroke, and related health conditions. This medicine is a statin.

When This Medicine Should Not Be Used:
This medicine is not right for everyone. Do not use it if you had an allergic reaction to simvastatin, you are pregnant or breastfeeding, or you have active liver disease.

How to Use This Medicine:
Tablet

Take your medicine as directed. Your dose may need to be changed several times to find what works best for you.

Take the medicine in the evening, unless your doctor tells you otherwise.

Missed doses: Take a dose as soon as you remember. Do not take a double dose. If it is almost time for your next dose, wait until the next dose.

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References

You can view the references by clicking on the **References** link in the left panel or by clicking a citation number within the text, which opens a pop-up window containing the reference.

Dosing/Administration

- Adult Dosing
- Pediatric Dosing
- FDA Uses
- Non-FDA Uses
- Dose Adjustments
- Administration
- Comparative Efficacy
- Place In Therapy

Medication Safety

- Contraindications
- Precautions
- Adverse Effects
- Black Box Warning
- REMS
- Drug Interactions

About

- How Supplied
- Drug Properties
- Storage & Stability
- Trade Names
- Regulatory Status
- References**

About

References

See 'In-Depth Answers' for detailed results.

1. Institute for Safe Medication Practices: ISMP's list of confused drug names. Institute for Safe Medication Practices. Huntingdon Valley, PA. 2005. Available from URL: <http://ismp.org/T...>
2. Institute for Safe Medication Practices: ISMP's List of Confused Drug Names. Institute for Safe Medication Practices. Horsham, PA. 2009. Available from URL: <http://www.ismp.o...> As accessed 2009-09-14.
3. Product Information: ZOCOR(R) oral tablets, simvastatin oral tablets. Merck & CO., Inc. (Per manufacturer), Whitehouse Station, NJ, 2012.
4. Nseir W., Diab H., Mahamid M., et al: Randomised clinical trial: simvastatin as adjuvant therapy improves significantly the Helicobacter pylori eradication rate - a placebo-controlled study. Aliment Pharmacol Ther 2012; 36(3):231-238. PubMed Abstract: <http://www.ncbi.nlm.nih.gov/...> PubMed Article: <http://www.ncbi.nlm.nih.gov/...>
5. Product Information: ZOCOR(R) oral tablets, simvastatin oral tablets. Merck & Co, Inc., Whitehouse Station, NJ, 2008.

(Simvastatin and ZOCOR(R) oral tablets, simvastatin oral tablets. Merck & Co, Inc., Whitehouse Station, NJ, 2008.)

Dispos 2003; 24(5):183-189. PubMed Abstract: <http://www.ncbi.nlm.nih.gov/...> PubMed Article: <http://www.ncbi.nlm.nih.gov/...>

12. Product Information: ZOCOR(R) oral tablets, simvastatin oral tablets. Merck & Co, Inc., Whitehouse Station, NJ, 2008.

13. Therapeutic Goods Administration: Prescribing medicines in pregnancy database. Therapeutic Goods Administration. Woden, Australian Capital Territory, Australia. 2011. Available from URL: <http://www.tga.gov...> As accessed 2011-06-20.

Last Modified: November 20, 2014

OR

Medication Safety

- Contraindications
- Precautions
- Adverse Effects
- Black Box Warning
- REMS
- Drug Interactions

References

See 'In-Depth Answers' for detailed results.

- active liver disease, including hepatic transaminases [7]
- concomitant use with gemfibrozil, CYP3A4 inhibitors (eg, boceprevir, HIV protease inhibitors, itraconazole, telaprevir, teliciclovir, teliciclovir-containing products)
- hypersensitivity to any component
- nursing mothers [7]
- women who are pregnant or may become pregnant; may cause fetal harm [7]

[7] Product Information: ZOCOR(R) oral tablets, simvastatin oral tablets. Merck Sharpe & Dohme, Corp. (per FDA), Whitehouse Station, NJ, 2012.

24. Batagol RBatagol R (Ed): Australian Drug Evaluation of drug use in pregnancy, 3rd. Australian Government Publishing Service, Canberra, Australia. 2001.

25. Anon: American academy of pediatrics committee on Pediatrics 2001; 108(3):776-789.

26. Anon: Breastfeeding and Maternal Medication. World Health Organization, Geneva, Switzerland. 2001.

Last Modified: December 23, 2014

Last Modified Date

Summary Drug Information includes a *last modified date* at the bottom of the References section.

Printing

Click the Print icon (**Print**) to print the summary monograph. For more details on printing see ["Printing" on page 86](#).

DETAILED DRUG INFORMATION

DRUGDEX Detailed Drug Information contains the details required to answer more complex questions, and it is clinically consistent with the Summary Drug Information.

From the landing page click the **In-Depth Answers** tab, and the detailed drug monograph is displayed in the middle panel. The left panel contains links for navigating the sections of the detailed monograph. Click on a link to display that section in the middle panel.

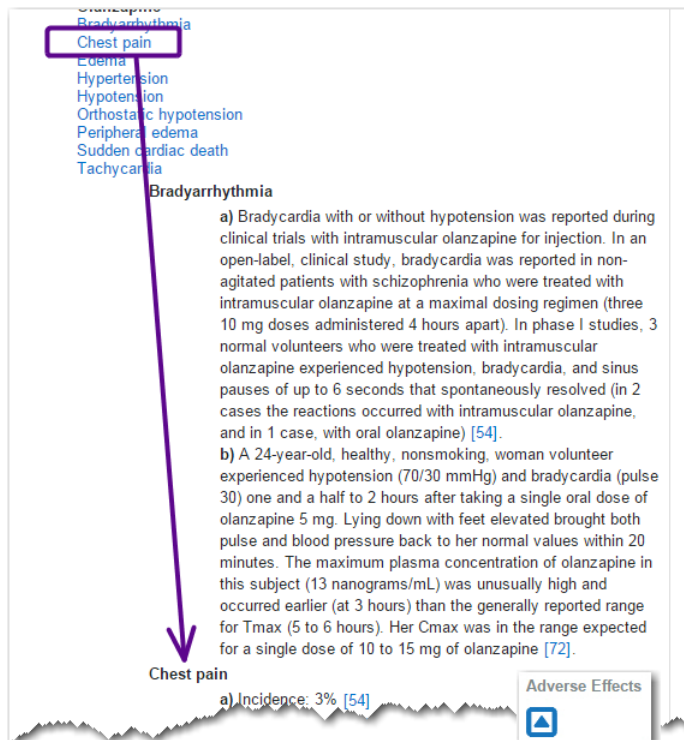
For example, a search for “olanzapine” results in the Olanzapine landing page, which defaults to the *Quick Answers* tab. Click the **In-Depth Answers** tab to view the detailed drug monograph.

The screenshot shows the DRUGDEX interface for Olanzapine. At the top, there are tabs for 'Quick Answers', 'In-Depth Answers', and 'All Results'. The 'In-Depth Answers' tab is selected. The main content area is divided into sections: 'Dosing/Administration', 'Medication Safety', and 'Related Results'. The 'Medication Safety' section is expanded, showing 'Adverse Effects' and 'Cardiovascular Effects'. A callout box at the top left states: 'The landing page defaults to the Quick Answers tab. Click the In-Depth Answers tab to see the detailed drug monograph.' Another callout box points to the 'Adverse Effects' link in the left sidebar: 'Click a link to display a section of the monograph.' A third callout box points to the text of the 'Adverse Effects' section: 'Text of the Detailed Drug Information monograph'. A fourth callout box at the bottom right points to a back-to-top icon: 'Scroll down and a back-to-top icon will display in the lower right of the page.'

Navigating Document Sections

You can use the following methods to navigate within the detailed document sections:

- Arrow Up/Down keys
- Page Up/Down keys
- Browser scrollbar
- Click a sub-section link to go directly to that location
- If you move down in the monograph, a back-to-top icon displays in the lower right of the page.

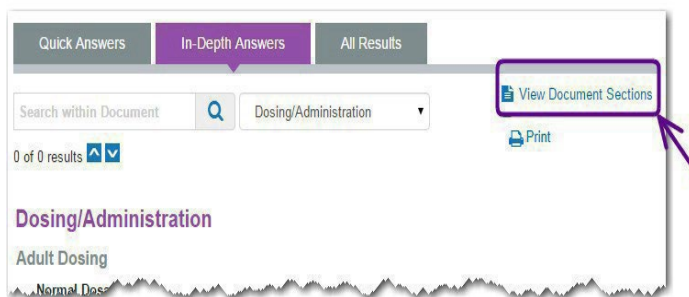


Scroll down and a back-to-top icon will display in the lower right of the page

Viewing the Full Document



Click **View Full Document** to view the entire detailed monograph.



Click **View Document Sections** to return to the panel view.

Navigating the Full Document

When viewing the full detailed monograph you have the following options for moving within the document:

- Arrow Up/Down keys
- Page Up/Page Down keys
- Browser scrollbar
- Drop-down box under the landing page tabs - Select a document section from this list to go directly to that section.
- If you move down in the monograph, a back-to-top icon displays in the lower right of the page.



The screenshot displays the Micromedex interface for Metformin Hydrochloride. At the top, there are filters for Formulary (Hospital Formulary), Status (Formulary), Drug Classes (Antidiabetic, Biguanide), and Routes (Oral). A Regulatory Authority dropdown is set to FDA. Below these are tabs for Quick Answers, In-Depth Answers, and All Results. A search bar is present with the text 'Search within Document'. A dropdown menu is open, listing various document sections such as Patient Education, Monitoring, Do Not Confuse, Mechanism of Action, Pharmacokinetics, Medication Counseling, Patient Handouts, Toxicology, Clinical Effects, Range of Toxicity, Treatment, About, How Supplied, Drug Properties, Storage & Stability, Trade Names, Regulatory Status, and References. The 'Patient Education' section is highlighted in blue. Callouts with purple boxes and arrows point to the dropdown menu, the browser scrollbar, and a back-to-top icon in the bottom right corner. The main content area shows a table of contents with sections like '3) Area Under the Curve', 'ADME', and 'Absorption'.

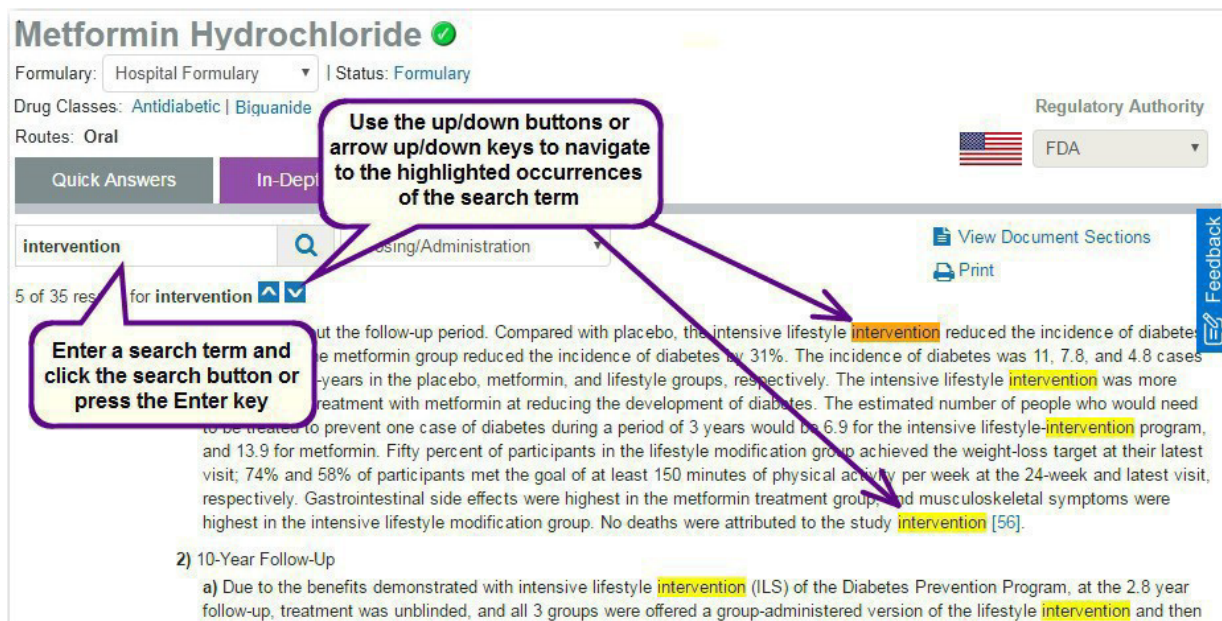
Select a document section from the drop-down list


Use the browser scrollbar or the up/down arrow keys or the Page Up/Page Down keys

Click the back-to-top icon to return to the top of the document

Searching Within a Document

When viewing the full detailed monograph you can search within the document. Simply enter a word or phrase in the search box located below the landing page tabs and click the **search** button or press the **Enter** key. The first occurrence of your search term is highlighted in orange, and subsequent occurrences are highlighted in yellow. Use the **arrow up/down** keys or the **up/down** buttons ( ) to move from one highlighted occurrence to another.




Metformin Hydrochloride 



Formulary: Hospital Formulary | Status: Formulary



Drug Classes: Antidiabetic | Biquanide

Routes: Oral

Regulatory Authority:  FDA

Quick Answers | In-Depth

intervention  

5 of 35 results for intervention  

Use the up/down buttons or arrow up/down keys to navigate to the highlighted occurrences of the search term

Enter a search term and click the search button or press the Enter key

View Document Sections

Print


Feedback

but the follow-up period. Compared with placebo, the intensive lifestyle **intervention** reduced the incidence of diabetes by 31%. The metformin group reduced the incidence of diabetes by 31%. The incidence of diabetes was 11, 7.8, and 4.8 cases per 100 person-years in the placebo, metformin, and lifestyle groups, respectively. The intensive lifestyle **intervention** was more effective than treatment with metformin at reducing the development of diabetes. The estimated number of people who would need to be treated to prevent one case of diabetes during a period of 3 years would be 6.9 for the intensive lifestyle-**intervention** program, and 13.9 for metformin. Fifty percent of participants in the lifestyle modification group achieved the weight-loss target at their latest visit; 74% and 58% of participants met the goal of at least 150 minutes of physical activity per week at the 24-week and latest visit, respectively. Gastrointestinal side effects were highest in the metformin treatment group, and musculoskeletal symptoms were highest in the intensive lifestyle modification group. No deaths were attributed to the study **intervention** [56].

2) 10-Year Follow-Up

a) Due to the benefits demonstrated with intensive lifestyle **intervention** (ILS) of the Diabetes Prevention Program, at the 2.8 year follow-up, treatment was unblinded, and all 3 groups were offered a group-administered version of the lifestyle **intervention** and then

Printing

Click the Print icon ( Print) to print the detailed monograph. This is available when viewing the document sections or the full document. For more details on printing see ["Printing" on page 86](#).

References

When in the panel view you can view the references by clicking on the **References** link in the left panel or by clicking a citation number within the text, which opens a pop-up window containing the reference.

About [View Full Document](#)

References [Print](#)

See "Quick Answers" for summary results.

1. Navari RM, Gray SE, & Kerr AC. Olanzapine versus aprepitant for the prevention of chemotherapy-induced nausea and vomiting: a randomized phase III trial. *J Support Oncol* 2011; 9(5):188-195.
PubMed Abstract: <http://www.ncbi.nlm.nih.gov/...>
PubMed Article: <http://www.ncbi.nlm.nih.gov/...>
2. Tan L, Liu J, Liu X, et al: Clinical research of Olanzapine for prevention of chemotherapy-induced nausea and vomiting. *J Exp Clin Cancer Res* 2009; 28:131-136.
PubMed Abstract: <http://www.ncbi.nlm.nih.gov/...>
PubMed Article: <http://www.ncbi.nlm.nih.gov/...>
3. Meyers BS, Flint AJ, Rothschild AJ, et al: A double-blind randomized controlled trial of olanzapine plus sertraline vs olanzapine plus placebo for psychotic depression: the study of pharmacotherapy of psychotic depression (STOP-PD). *Arch Gen Psychiatry* 2009; 66(8):838-847.
PubMed Abstract: <http://www.ncbi.nlm.nih.gov/...>
PubMed Article: <http://www.ncbi.nlm.nih.gov/...>
9. Tollefson GD, Beasley CM Jr, Tran PV, et al: Olanzapine versus haloperidol in the treatment of schizophrenia and schizoaffective and schizophreniform disorders: results of an international collaborative trial. *Am J Psychiatry* 1997; 154:457-465.
10. Jeste DV, Barak Y, Madhusoodanan S, et al: International multisite double-blind trial of the atypical antipsychotics risperidone and olanzapine in 175 elderly patients with chronic schizophrenia. *Am J Geriatr Psychiatry* 2003; 11(6):638-647.

OR

Mechanism of Action [View Full Document](#)

Mechanism of Action [Print](#)

See "Quick Answers" for summary results.

A) Olanzapine

1) MECHANISM OF ACTION

a) Olanzapine is a derivative) structural derivatives of olanzapine are also classified as "atypical antipsychotics" due to their efficacy in treating schizophrenia and lower propensity for extrapyramidal symptoms compared to conventional or typical antipsychotics. A disadvantage of clozapine is its ability to induce agranulocytosis in 2% of patients; olanzapine was primarily developed as a safer alternative [312] [316].

b) Similar to clozapine, olanzapine is both a dopamine receptor antagonist and a partial agonist, both at the 5-HT_{2A} and 5-HT_{2C} receptors.

When viewing the full document you can view the references by selecting **References** from the section drop-down box or by clicking a citation number within the text, which takes you to that specific reference in the References section.

Quick Answers In-Depth Answers All Results

Search within Document

0 of 0 results

References

1. Navari RM, Nay SE, & Kerr AC: Olanzapine for the treatment of schizophrenia. *Support Oncol* 2011; 9(5):188-195. PubMed Abstract: <http://www.ncbi.nlm.nih.gov/pubmed/21511111> PubMed Article: <http://www.ncbi.nlm.nih.gov/pubmed/21511111>
2. Tan L, Liu J, Liu X, et al: Clinical research on olanzapine in the treatment of depression: the study of pharmacokinetics and pharmacodynamics. *Journal of Clinical Pharmacy and Therapeutics* 2012; 37(4):491-498. PubMed Abstract: <http://www.ncbi.nlm.nih.gov/pubmed/22511111> PubMed Article: <http://www.ncbi.nlm.nih.gov/pubmed/22511111>
3. Meyers BS, Flint AJ, Rothschild AJ, et al: Olanzapine for the treatment of acute agitation in patients with dementia. *Neuropsychopharmacology* 2002; 27(4):491-498. PubMed Abstract: <http://www.ncbi.nlm.nih.gov/pubmed/12111111> PubMed Article: <http://www.ncbi.nlm.nih.gov/pubmed/12111111>
4. Meehan KM, Wang H, David SR, et al: Olanzapine versus haloperidol in the treatment of schizophrenia and schizoaffective disorders: results of an international collaborative trial. *Am J Psychiatry* 1997; 154:457-465.

Pediatric Dosing

Normal Dosage

Important Note

) There are 2 olanzapine intramuscular formulations with different dosages. The extended-release formulation should not be confused with olanzapine pamoate, the extended-release oral formulation. Extended-release olanzapine pamoate must be administered in a clinical setting. Following each injection, a healthcare professional must observe the patient for symptoms consistent with olanzapine overdose, including sedation, loss of consciousness, patient is alert, oriented, and without any signs or symptoms of postural instability. In the facility, patients must be accompanied to their destination and supervised until they are fully alert.

Olanzapine

52. Product Information: ZYPREXA RELPREVV extended release IM injectable suspension, olanzapine extended release IM injectable suspension, Eli Lilly and Company, Indianapolis, IN, 2009.

53. Kane JM, Detke HC, Naber D, et al: Olanzapine long-acting injection: a 24-week, randomized, double-blind trial of olanzapine long-acting injection versus olanzapine oral tablets in the treatment of schizophrenia. *Am J Psychiatry* 2010; 167(2):181-189. PubMed Abstract: <http://www.ncbi.nlm.nih.gov/pubmed/20111111> PubMed Article: <http://www.ncbi.nlm.nih.gov/pubmed/20111111>

54. Product Information: ZYPREXA(R) oral tablets, intramuscular injection, olanzapine oral tablets, intramuscular injection, Eli Lilly and Company, Indianapolis, IN, 2010.

55. Product Information: ZYPREXA(R) RELPREVV(TM) extended release intramuscular injectable suspension, olanzapine extended release intramuscular injectable suspension, Eli Lilly and Company, Indianapolis, IN, 2010.

56. U.S. Food and Drug Administration (FDA): FDA Drug Safety Communication: FDA is investigating two deaths following the use of the antipsychotic Zyprexa Relprevv (olanzapine pamoate). U.S. Food and Drug Administration (FDA). Rockville, MD. 2013. <http://www.fda.gov/oc/ohrt/2013/06/13FDA-DC-13-0012.html>. As accessed 2013-06-18.

57. Product Information: ZYPREXA(R) intramuscular injection, oral tablet, orally disintegrating tablet, olanzapine intramuscular injection, orally disintegrating tablet, Eli Lilly and Company, Indianapolis, IN, 2009.

58. Tollefson GD, Beasley CM Jr, Tran PV, et al: Olanzapine versus haloperidol in the treatment of schizophrenia and schizoaffective disorders: results of an international collaborative trial. *Am J Psychiatry* 1997; 154:457-465.

Last Modified Date

1942. King RB: Concerning the management of pain associated with herpes zoster. *Am J Med* 1942; 33:73-78.

1943. Balakrishnan S, Bhushan K, Bhargava VK, et al: A randomized controlled trial of oral aspirin for acute herpetic neuralgia. *Int J Dermatol* 2001; 40(11):1357-1360.

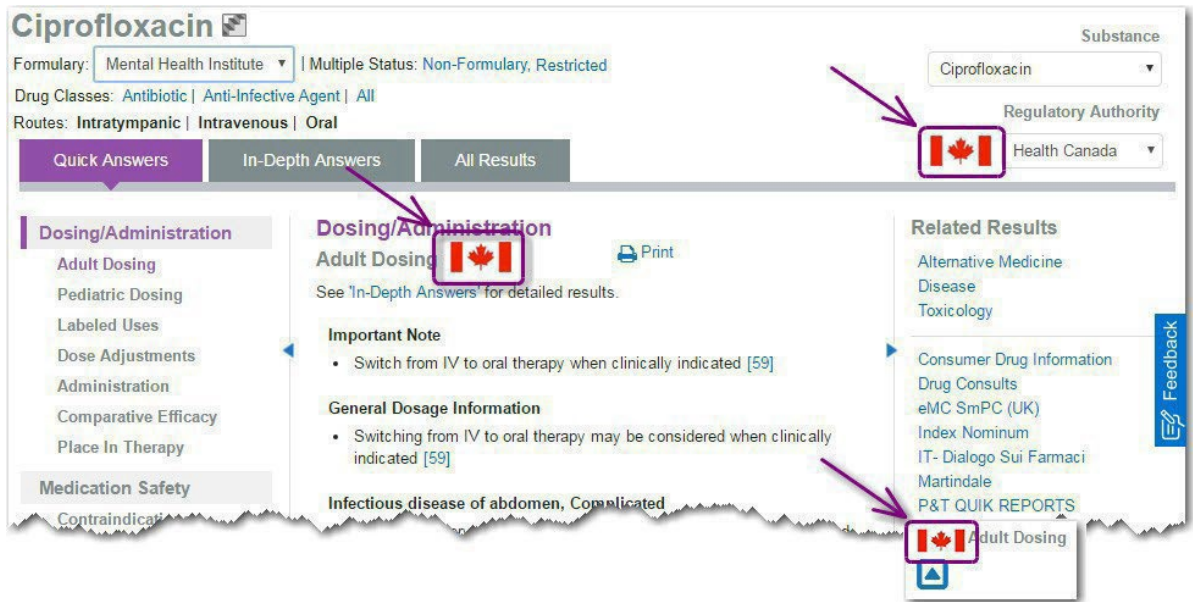
Last Modified: December 23, 2014

Detailed drug information monographs contain a *last modified date* at the bottom of the References section.

REGULATORY AUTHORITY INFORMATION

Drug information from the Food and Drug Administration (FDA) is available for all prescription and nonprescription drugs. Information from Health Canada and European Medicines Agency (EMA) is available for a subset of prescription drugs. Click an item from the Regulatory Authority drop-down list on the Quick Answers and In-Depth Answers tabs to view drug information from a specific regulatory authority.

Note: If drug information is available from only one source, the Regulatory Authority drop-down list is disabled.



A flag identifying the selected regulatory authority displays next to the Regulatory Authority drop-down list and on the middle panel of the Quick Answers and In-Depth Answers tabs. The flag also displays above the back-to-top icon that allows you to return to the top of the document.

Information from Health Canada and EMA is available only for the following sections:

- Adult Dosing
- Pediatric Dosing
- Labeled Uses

Note: The Labeled Uses section title changes to FDA Uses when FDA is the selected regulatory authority.

- Dose Adjustments
- Black Box Warning
- Trade Names

FDA is the default regulatory authority. If you select a different authority, that selection is retained for all drugs for which information from the selected authority is available. If no information is available from the selected authority, the regulatory authority automatically defaults to FDA.

The screenshot shows a web interface for Ciprofloxacin. At the top, the drug name is displayed with a flag icon. Below it, there are filters for Formulary (Mental Health Institute) and Multiple Status (Non-Formulary, Restricted). Drug classes and routes are listed. A search bar is present. On the right, there are options for Ciprofloxacin, Regulatory Authority (Health Canada), View Document Sections, and Print. A vertical Feedback button is on the far right. The main content area lists sections: Black Box Warning (No results available), REMS (No results available), Drug Interactions (single), and Drug-Drug Combinations (Acarbose). A callout box points to a flag icon next to the Black Box Warning section, stating: "Flag icon identifies the sections that contain information from Health Canada". Another callout box points to the Regulatory Authority dropdown menu, stating: "The selected regulatory authority is Health Canada".

RELATED RESULTS

The following related information can be accessed from the landing page:

- [Chapter 8: Alternative Medicine Information on page 145](#)
- [Chapter 6: Disease Information on page 123](#)
- [Chapter 7: Toxicology Information on page 135](#)
- [“Consumer Drug Information \(Detailed Drug Information for the Consumer\)” on page 120](#)
- [“Drug Consults” on page 121](#)
- [“Global \ International Drug Information” on page 121](#)
- [“P&T Quick Reports \(Formulary Considerations\)” on page 121](#)
- [“Product Lookup - Martindale” on page 121](#)
- [“Product Lookup - Micromedex® RED BOOK®” on page 122](#)
- [“Product Lookup - Tox & Drug” on page 122](#)

In the following example a search was performed for “posaconazole,” and the Posaconazole landing page is displayed. Links to related information are available in the right panel when viewing the *Quick Answers* and *In-Depth Answers* tab and in the left panel when viewing the *All Results* tab.

The image displays two screenshots of the Posaconazole landing page. The top screenshot shows the 'Quick Answers' tab selected, with callouts pointing to the 'Posaconazole landing page' title, the 'Quick Answers' tab, the 'Dosing/Administration' section, and the 'Related Results' panel. The bottom screenshot shows the 'In-Depth Answers' tab selected, with callouts pointing to the 'Posaconazole' title, the 'In-Depth Answers' tab, the 'Dosing/Administration' section, and the 'Related Results' panel. A 'Related Documents' panel is also visible on the left of the bottom screenshot.

For more information on landing pages see [“Landing Pages” on page 40.](#)

MICROMEDEX® - USER GUIDE

Clicking on a link under *Related Results* displays a list of all related documents in that database. Click a title to display the document or landing page.

The screenshot shows the Micromedex interface for Posaconazole. At the top, it lists drug classes (Antifungal, Anti-Infective Agent, All) and routes (Intravenous, Oral). The regulatory authority is set to FDA. Navigation tabs include Quick Answers, In-Depth Answers (selected), and All Results. A sidebar menu on the left lists categories like Dosing/Administration, Adult Dosing, Pediatric Dosing, FDA Uses, Non-FDA Uses, Dose Adjustments, Administration, and Comparative Efficacy. The main content area shows 'Dosing/Administration' with a link to 'View Full Document' and 'Print'. A 'Related Results' section on the right lists various document types, with 'Drug Consults' highlighted. A popup window titled 'Drug Consults' is open, displaying a list of documents, with 'CAPSULES/TABLETS THAT SHOULD NOT BE CRUSHED GUIDE' selected. Below the list, a 'RESPONSE' section provides detailed information about why certain oral solid dosage forms should not be crushed or chewed.

Consumer Drug Information (Detailed Drug Information for the Consumer)

Consumer Drug Information provides patient-oriented drug information to help patients understand and successfully follow their drug regimens. Written at a 12th-grade literacy level, documents provide greater detail than most patient education leaflets and include brand names, descriptions, proper use, precautions, and side effects. Instructions for how to handle missed doses are included, as are guidelines for when to seek medical assistance or supervision.

A list of related documents for Posaconazole, including: Comparative Efficacy, Consumer Drug Information, Drug Consults, eMC SmPC (UK), Index Nominum, IT- Dialogo Sui Farmaci, Martindale, P&T QUIK REPORTS, Product Lookup - Martindale, Product Lookup - RED Book, and Product Lookup - Tox & Drug.

Drug Consults

DRUGDEX Drug Consults are evidence-based, fully-referenced articles covering drug therapies and drug guidelines. Some Drug Consults present patient related, referenced consultations with case histories. They are also an excellent resource for information on herbal medications, medical and surgical materials, excipients, drugs of abuse, and health foods.

Drug Consults are provided for investigational, international, FDA-approved, and over-the-counter preparations. In addition to accessing Drug Consults from a landing page, you can perform a targeted search to see all Drug Consults or all Drug Consults containing comparative tables. See [“Targeted Searches” on page 70](#) for more details.

Global \ International Drug Information

International drug information can be included in your subscription. Databases can include: [Martindale: The Complete Drug Reference](#), [Index Nominum](#), [Herbal Medicines: A Guide for the Health-Care Professional](#), Dialogo sui Farmaci, or eMC SmPC. The international drug information is integrated into all searches in Micromedex. In addition to accessing international drug information from a landing page and intermediate search results, you can perform a search on an international brand name. See [“International Drug Searching” on page 85](#) for more details.

P&T Quick Reports (Formulary Considerations)

P&T QUIK Reports assists pharmacists in preparing for Pharmacy and Therapeutics Committee meetings. P&T QUIK contains monographs on drugs being considered by P&T Committees for placement on the hospital formulary. Included are drugs recently approved by the FDA, those of intense interest, or drugs suggested by subscribers. Twelve monographs are added each quarter, and the most recent 24 months of monographs are available.



Product Lookup - Martindale

Clicking this link performs a search for *Globally distributed drug products in Martindale* in the Tox & Drug Product Lookup tool. See [Chapter 16: Tox & Drug Product Lookup Tool](#) for more details.

Product Lookup - Micromedex® RED BOOK®

Clicking this link performs an *Active Ingredient* search in the Micromedex® RED BOOK® tool. See [Chapter 18: Micromedex® RED BOOK® on page 266](#) for more details.

ProductLookup -Tox & Drug

Clicking this link performs a *Product or substance name* search in the Tox & Drug Product Lookup tool. See [Chapter 16: Tox & Drug Product Lookup Tool](#) for more details.

TARGETED DRUG INFORMATION SEARCHES

Micromedex provides some highly focused drug searches that present you with results that are specific to your clinical question. These include:

- **Black Box Warnings**
An alphabetical list of all drugs in Micromedex with a black box warnings. Search results return the list of drugs (with a black box warning) as links, to directly access the black box warning topic in the drug information. See [“Black Box Warning List” on page 71](#) for additional information.
- **Comparative Tables**
A complete list of all DRUGDEX Drug Consults articles that have comparative tables. See [“Comparative Tables” on page 72](#) for more information.
- **Do Not Confuse Drug List**
An alphabetical list of confused drug names, including look-alike and sound-alike name pairs. See [“Do Not Confuse Drug List” on page 73](#) for more information.
- **Drug Classes**
This search displays an alphabetical list of the drug classes in Micromedex that can be browsed to find all of the drugs in a particular class. See [“Drug Classes” on page 75](#) for more information.
- **Drug Consults**
A complete list of all Drug Consults articles available in Micromedex. See [“Drug Consults” on page 78](#) for more information.
- **REMS: Risk Evaluation and Mitigation Strategies**
Provides a list of drugs and biological products that have FDA-approved REMS. Drug names are displayed as links to the REMS information for the drug. See [“REMS: List of Drugs With a Risk Evaluation and Mitigation Strategy” on page 79](#) for more information.

CHAPTER 6: DISEASE INFORMATION

The Micromedex® application supports disease management with unbiased, evidence-based information and identification of best practices for treating diseases. It lets clinicians quickly reference the most current treatment of choice at the point of care to help minimize errors, prevent unnecessary tests or procedures, reduce treatment costs, and improve patient outcomes. Micromedex delivers both etiology and treatment information, with summary overviews for each medical condition providing recommendations for appropriate care.

Micromedex® Disease Information provides trusted information to help clinicians make confident decisions when treating emergent, acute, and chronic disorders, and supports meaningful outcomes and ensures the highest standards of care.

We create a summary monograph and a detailed monograph for each topic. The Summary Disease Information monographs support quick decisions at the point of care, and the Detailed Disease General Medicine and Detailed Disease Emergency Medicine monographs support further research and aid clinicians when making difficult treatment decisions. Because one editorial group creates all the Micromedex content, treatment recommendations are consistent.

This chapter describes the types of disease information available in Micromedex. For information on how to search in Micromedex see ["Chapter 4: Searching Micromedex®" on page 37](#).

SUMMARY DISEASE INFORMATION

Summary Disease Information is succinct, actionable at the point-of-care, and designed to get you an answer very quickly. It is displayed on the middle panel of the *Quick Answers* tab on the landing page. The left panel contains links for navigating the sections of the summary monograph. Click on a link to display that section in the middle panel.

Hyperlinked information within the content links directly to drug, lab, toxicology, and other disease landing pages.

For example, a search for “tuberculosis” results in the following landing page:

The screenshot shows the 'Tuberculosis' summary page. At the top, there are three tabs: 'Quick Answers' (selected), 'In-Depth Answers', and 'All Results'. Below the tabs is a left sidebar with a list of sections: Definition, Medical History, Findings, Differential Diagnosis (highlighted), Testing, Procedural Therapy, Non-Procedural Therapy, Ongoing Assessment, and Reference. The main content area displays the 'Differential Diagnosis' section, which includes a sub-header 'Differential Diagnosis' and a list of conditions: Primary tuberculosis, Inactive tuberculosis, Reactivation tuberculosis, Pulmonary tuberculosis, Tuberculosis, extrapulmonary, Tuberculosis, acute, Congenital tuberculosis, Community acquired pneumonia, Lung cancer, and Chronic obstructive pulmonary disease. A 'Print' icon is visible to the right of the sub-header. On the far right, there is a 'Related Results' sidebar with links for Alternative Medication, Drug, Toxicology, Clinical Checklist, and Disease Other Titles. A vertical 'Feedback' button is located on the right edge of the page. Three callout boxes are present: one pointing to the 'Differential Diagnosis' link in the sidebar, one pointing to the 'Differential Diagnosis' sub-header in the main content, and one pointing to the 'Community acquired pneumonia' link in the list.

Click a link to display a section of the monograph

Text of the Summary Drug Information monograph

Links to other landing pages

References

You can view the references by clicking on the **Reference** link in the left panel or by clicking a citation number within the text, which opens a pop-up window containing the reference.

Tuberculosis

Quick Answers | In-Depth Answers | All Results

Definition
Medical History
Findings
Differential Diagnosis
Testing
Treatment
Drug Therapy
Procedural Therapy
Non-procedural Therapy
Ongoing Assessment

Reference Print

- Jacob JT, Mehta AK, & Leonard MK: Acute forms of tuberculosis in adults. *Am J Med* 2009; 122(1):12-17.
PubMed Abstract: <http://www.ncbi.nlm.nih.gov/...>
PubMed Article: <http://www.ncbi.nlm.nih.gov/...>
- Ernst JD, Trevejo-Nunez G, & Banaiee N: Genomics and the evolution, pathogenesis, and diagnosis of tuberculosis. *J Clin Invest* 2007; 117(7):1738-1745.
PubMed Abstract: <http://www.ncbi.nlm.nih.gov/...>
PubMed Article: <http://www.ncbi.nlm.nih.gov/...>
- American Thoracic Society & Center for Disease Control and Prevention. National Immunization Program (NIP): Diagnostic Standards and Classification of Tuberculosis in Adults and Children. This official statement of the American Thoracic Society and the Centers for Disease Control and Prevention was adopted by the ATS Board of Directors, July 1999. This statement was endorsed by the Council of the Infectious Disease Society of America, September 1999. *Am J Respir Crit Care Med* 2000; 161(4 Pt 1):1376-1395.
PubMed Abstract: <http://www.ncbi.nlm.nih.gov/...>
PubMed Article: <http://www.ncbi.nlm.nih.gov/...>

OR

Treatment Print

Procedural Therapy

Suspected and known tuberculosis [17]

- Infection control procedure

Reportable infectious diseases [18][19][20]

- Infectious disease notification: In the United States, specific infectious diseases must be reported to a public health department [18][19].

References Close

[20] Chapman AS, Bakken JS, Folk SM, et al: Diagnosis and management of tickborne rickettsial diseases: Rocky Mountain spotted fever, ehrlichiosis, and anaplasmosis—United States: a practical guide for physicians and other health-care and public health professionals. *MMWR Recomm Rep* 2006; 55(RR-4):1-27.
PubMed Abstract: <http://www.ncbi.nlm.nih.gov/...>
PubMed Article: <http://www.ncbi.nlm.nih.gov/...>

32. Mensing C, Boucher J, Cypress M, et al: National standards for the management of acute kidney injury. *Ann Intern Med* 2011; 154(1):S96-S103.
PubMed Abstract: <http://www.ncbi.nlm.nih.gov/...>
PubMed Article: <http://www.ncbi.nlm.nih.gov/...>


33. Levey AS, Coresh J, Balk E, et al: National Kidney Foundation classification, and stratification. *Ann Intern Med* 2003; 139(2):111-117.
PubMed Abstract: <http://www.ncbi.nlm.nih.gov/...>
PubMed Article: <http://www.ncbi.nlm.nih.gov/...>

Last Modified: September 12, 2014

Last Modified Date

Summary Disease Information includes a *last modified date* at the bottom of the Reference section.

Printing

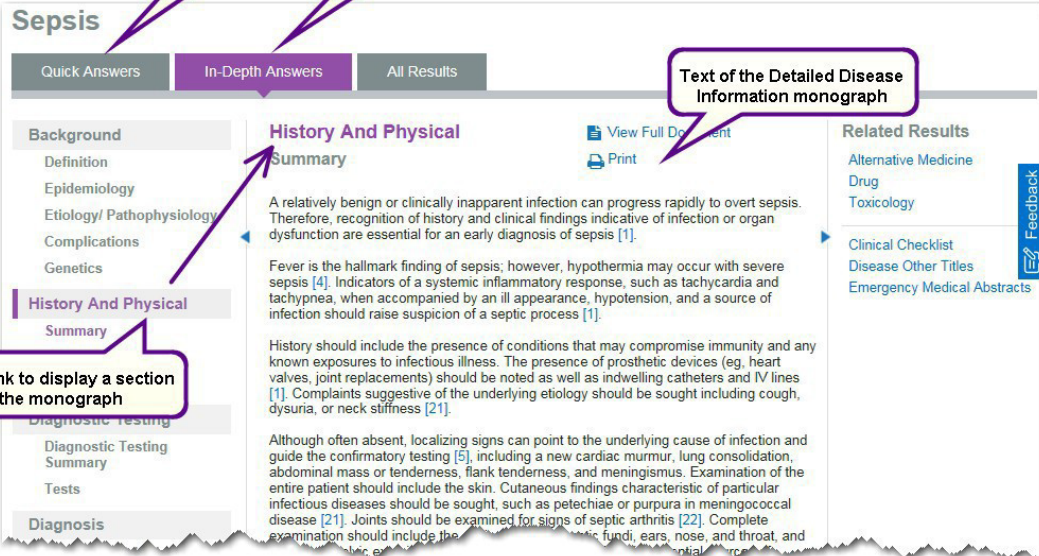
Click the **Print** icon ( **Print**) to print the summary monograph. For more details on printing see [“Printing” on page 86.](#)

DETAILED DISEASE INFORMATION

Detailed Disease General and Emergency Medicine Information contains the details required to answer more complex questions, and it is clinically consistent with the Summary Disease Information.

From the landing page click the **In-Depth Answers** tab, and the detailed disease monograph is displayed in the middle panel. The left panel contains links for navigating the sections of the detailed monograph. Click on a link to display that section in the middle panel.

For example, a search for “sepsis” results in the Sepsis landing page, which defaults to the *Quick Answers* tab. Click the **In-Depth Answers** tab to view the detailed disease monograph.



The screenshot shows the Sepsis monograph interface. At the top, there are three tabs: "Quick Answers", "In-Depth Answers", and "All Results". The "In-Depth Answers" tab is selected. Below the tabs is a left sidebar with a list of sections: "Background", "History And Physical", "Diagnostic Testing", and "Diagnosis". The "History And Physical" section is highlighted. The main content area displays the "History And Physical Summary" with text describing sepsis. To the right of the main content are "View Full Document" and "Print" icons, and a "Related Results" section with links for "Alternative Medicine", "Drug", "Toxicology", "Clinical Checklist", "Disease Other Titles", and "Emergency Medical Abstracts". A vertical "Feedback" button is on the far right. Three callout boxes provide instructions: one points to the "In-Depth Answers" tab, another points to a link in the left sidebar, and a third points to the "Print" icon.

The landing page defaults to the Quick Answers tab. Click the In-Depth Answers tab to see the detailed disease monograph.

Click a link to display a section of the monograph

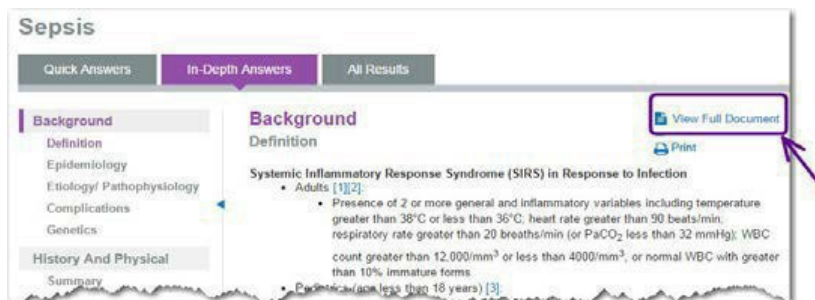
Text of the Detailed Disease Information monograph

Navigating Document Sections

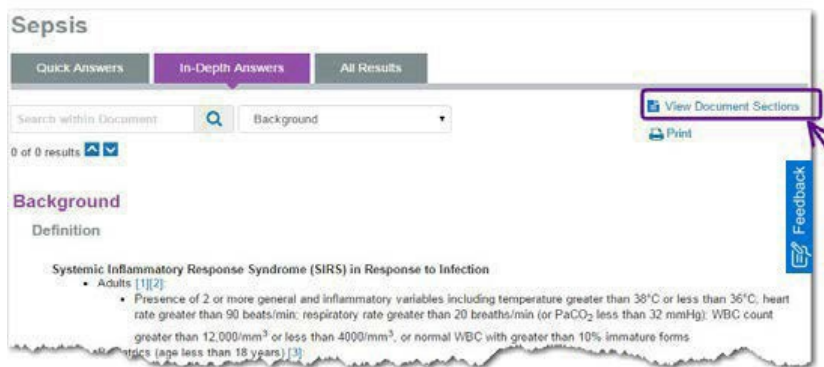
You can use the following methods to navigate within the detailed document sections:

- Arrow up/down keys
- Page up/down keys
- Browser scrollbar
- If you move down in the monograph, a back-to-top icon displays in the lower right of the page.

Viewing the Full Document



Click **View Full Document** to view the entire detailed monograph.



Click **View Document Sections** to return to the panel view.



Navigating the Full Document

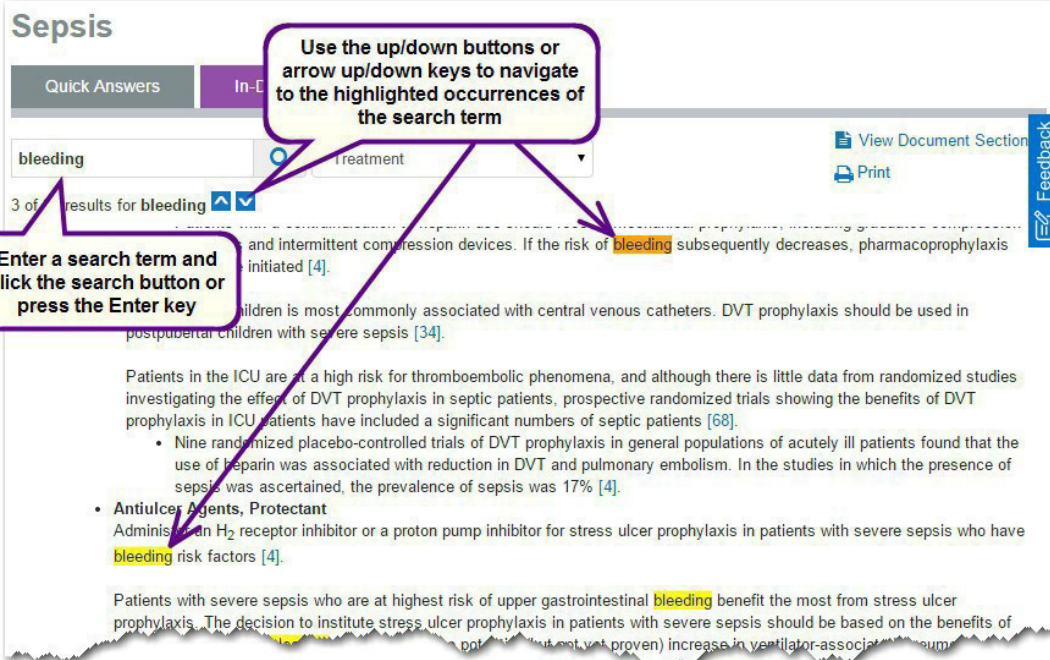
When viewing the full detailed monograph you have the following options for moving within the document:

- Arrow Up/Down keys
- Page Up/Page Down keys
- Browser scrollbar
- Drop-down box under the landing page tabs - Select a document section from this list to go directly to that section.
- If you move down in the monograph, a back-to-top icon displays in the lower right of the page.

The screenshot shows the Micromedex interface for the 'Sepsis' monograph. At the top, there are tabs for 'Quick Answers', 'In-Depth Answers', and 'All Results'. Below the tabs is a search bar and a 'View Document Sections' button. A drop-down menu is open, showing a list of sections: Background, Definition, Epidemiology, Etiology/ Pathophysiology, Complications, Genetics, History And Physical, Summary, Medical History, Findings, Diagnostic Testing, Tests, Diagnosis, Diagnostic Criteria, Differential Diagnosis, Ongoing Assessment, Reassessment, Treatment, and Treatment Summary. The 'Treatment' section is highlighted in blue. A callout bubble points to this list with the text: 'Select a document section from the drop-down list'. Another callout bubble points to the 'View Document Sections' button with the text: 'Use the browser scrollbar or the up/down arrow keys or the Page Up/Page Down keys'. At the bottom right of the page, a small blue square icon with an upward-pointing arrow is visible. A callout bubble points to this icon with the text: 'Scroll down and a back-to-top icon will display in the lower right of the page'. The main content area shows the 'Treatment Summary' section, which includes text about emergency management of sepsis, aggressive volume resuscitation, and adequate fluid resuscitation.

Searching Within a Document



When viewing the full detailed monograph you can search within the document. Simply enter a word or phrase in the search box located below the landing page tabs and click the **search button** or press the **Enter** key. The first occurrence of your search term is highlighted in orange, and subsequent occurrences are highlighted in yellow. Use the **arrow up/down** keys or the **up/down buttons** ( ) to move from one highlighted occurrence to another.



The screenshot shows a document titled "Sepsis" with a search bar containing the term "bleeding". The search results show "3 of 3 results for bleeding". The first result is highlighted in orange, and subsequent results are highlighted in yellow. The search term "bleeding" is highlighted in orange in the text. The document content includes sections on "Antitumor Agents, Protectant" and "Antitumor Agents, Protectant".

Use the up/down buttons or arrow up/down keys to navigate to the highlighted occurrences of the search term

Enter a search term and click the search button or press the Enter key

3 of 3 results for bleeding  

and intermittent compression devices. If the risk of **bleeding** subsequently decreases, pharmacoprophylaxis initiated [4].

children is most commonly associated with central venous catheters. DVT prophylaxis should be used in postpubertal children with severe sepsis [34].


Patients in the ICU are at a high risk for thromboembolic phenomena, and although there is little data from randomized studies investigating the effect of DVT prophylaxis in septic patients, prospective randomized trials showing the benefits of DVT prophylaxis in ICU patients have included a significant numbers of septic patients [68].

- Nine randomized placebo-controlled trials of DVT prophylaxis in general populations of acutely ill patients found that the use of heparin was associated with reduction in DVT and pulmonary embolism. In the studies in which the presence of sepsis was ascertained, the prevalence of sepsis was 17% [4].

• **Antitumor Agents, Protectant**
Administer an H₂ receptor inhibitor or a proton pump inhibitor for stress ulcer prophylaxis in patients with severe sepsis who have **bleeding** risk factors [4].

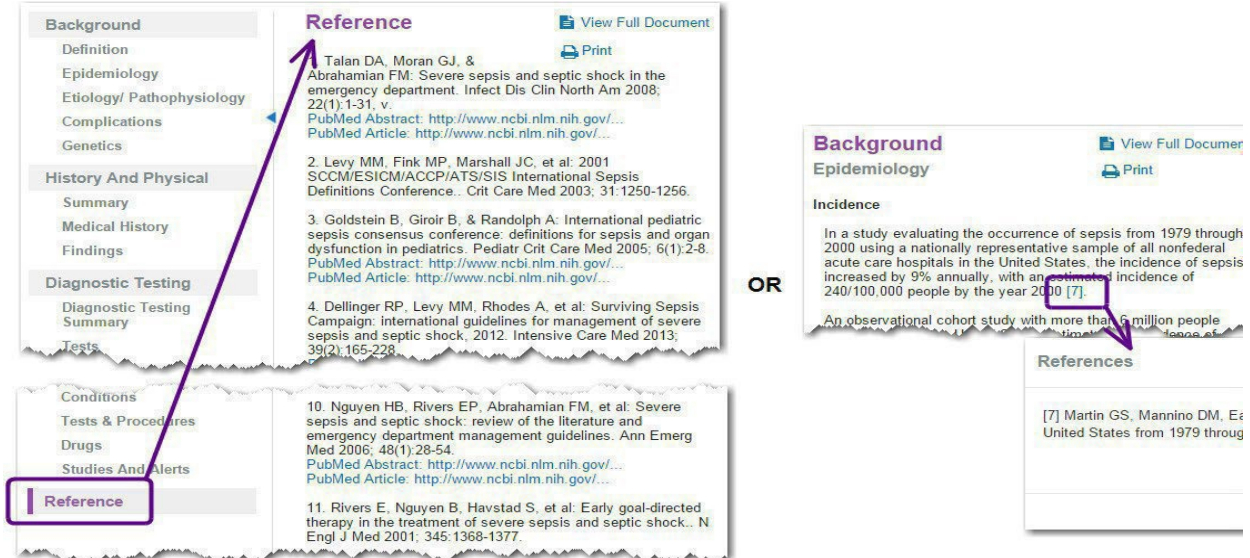
Patients with severe sepsis who are at highest risk of upper gastrointestinal **bleeding** benefit the most from stress ulcer prophylaxis. The decision to institute stress ulcer prophylaxis in patients with severe sepsis should be based on the benefits of prophylaxis (but not yet proven) increase in ventilator-associated pneumonia.

Printing

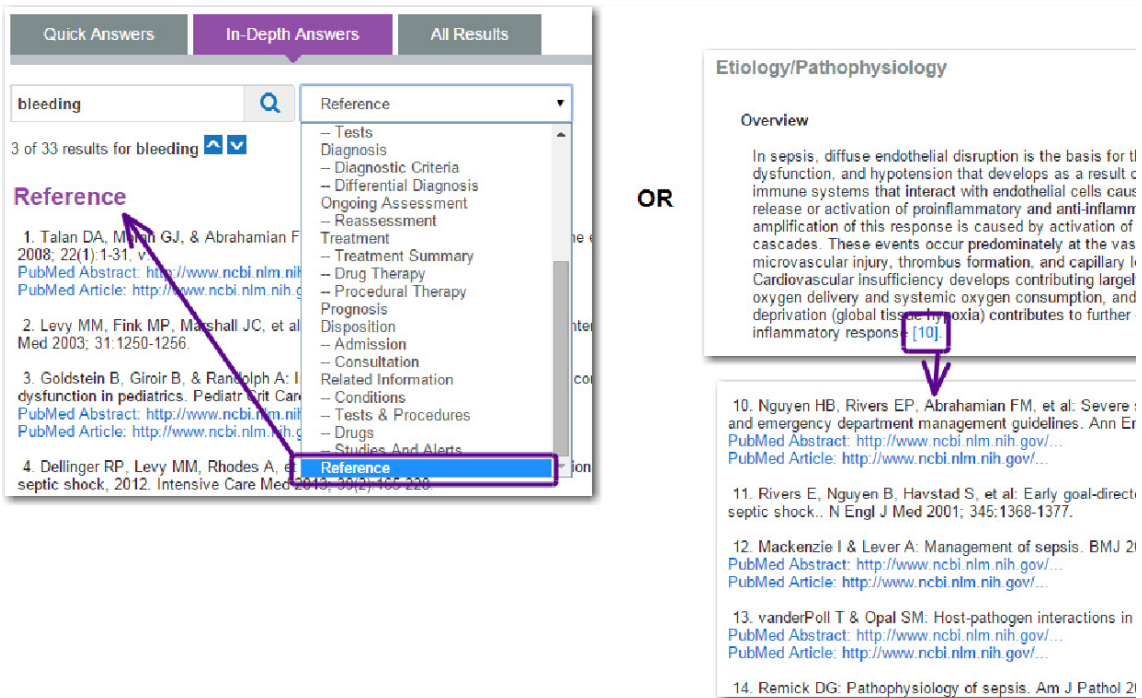
Click the Print icon ( [Print](#)) in the detailed monograph. This is available when viewing the document sections or the full document. For more details on printing see [“Printing” on page 86.](#)

References

When in the panel view you can view the references by clicking on the **Reference** link in the left panel or by clicking a citation number within the text, which opens a pop-up window containing the reference.



When viewing the full document, you can view the references by selecting **Reference** from the section drop-down box or by clicking a citation number within the text, which takes you to that specific reference in the Reference section.



115. Sigal RJ, Kenny GP, Wasserman DH, et al: Physical activity and risk of developing type 2 diabetes in men. *Diabetes Care* 2004; 27(12):2312-2319.
PubMed Abstract: <http://www.ncbi.nlm.nih.gov/...>
PubMed Article: <http://www.ncbi.nlm.nih.gov/...>

116. Thomas DE, Elliott EJ, & et al: Exercise for type 2 diabetes. *Diabetes Care* 2007; 30(12):2039-2046.
PubMed Abstract: <http://www.ncbi.nlm.nih.gov/...>
PubMed Article: <http://www.ncbi.nlm.nih.gov/...>

117. National Committee for Quality Assurance (NCQA): HEDIS. *Diabetes Care* 2007; 30(12):2039-2046.
Committee for Quality Assurance (NCQA), Washington, DC, 2011.

Last Modified: December 02, 2014

Last Modified Date

Detailed Disease Information includes a *last modified date* at the bottom of the Reference section.

RELATED RESULTS

The following related disease information can be accessed from the landing page:

- [Chapter 8: Alternative Medicine Information](#)
- [Chapter 5: Drug Information](#)
- [Chapter 7: Toxicology Information](#)
- [“Disease Other Titles” on page 134](#)
- [“Emergency Medical Abstracts” on page 134](#)

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In the following example a search was performed for “bronchiolitis,” and the Bronchiolitis landing page was displayed. Links to related disease, drug, and toxicology information are available in the right panel when viewing the *Quick Answers* and *In-Depth Answers* tab and in the left panel when viewing the *All Results* tab.

The image displays three screenshots of the Micromedex interface for a search on "Bronchiolitis".

- Top Screenshot:** Shows the "Quick Answers" tab selected. The left panel contains a list of categories: Definition, Medical History, Findings, Differential Diagnosis, Testing, Treatment, Drug Therapy, Procedural Therapy, Non-Procedural Therapy, and Reference. The right panel shows the "Definition" section with a print icon and a "Related Results" sidebar containing links for Drug, Toxicology, Clinical Checklist, Disease Other Titles, and Emergency Medical Abstracts.
- Middle Screenshot:** Shows the "All Results" tab selected. The left panel displays a "Related Results" sidebar with links for Drug, Toxicology, Alerts, Clinical Checklist, Disease Other Titles, and Emergency Medical Abstracts. The main content area shows a list of 115 of 1632 results for "Bronchiolitis", including links to "Bronchiolitis - Disease: Summary topic", "Bronchiolitis - Disease: Detailed evidence-", "Bronchiolitis - Disease: List of essential ca", "Bronchiolitis - Prevention & S", "Bronchiolitis - Disease: Summary topic", "Bronchiolitis - Prevention & S", "Bronchiolitis - Disease: Detailed evidence-", "Bronchiolitis - Prevention & S", "Bronchiolitis - Disease: List of essential ca", and "January 01, 2007 - Hospitaliz", "infants with moderate-to-seve", "Disease: Brief reports on ne".
- Bottom Screenshot:** Shows the "In-Depth Answers" tab selected. The left panel contains a list of categories: Background, Definition, Epidemiology, Etiology/ Pathophysiology, Complications, History And Physical, Summary, Medical History, and Findings. The right panel shows the "Background" section with a "View Full Document" icon and a "Related Results" sidebar containing links for Drug, Toxicology, Clinical Checklist, Disease Other Titles, and Emergency Medical Abstracts.

For more information on landing pages see [“Landing Pages”](#) on page 40.

Clicking on a link under *Related Results* displays a list of the related documents. Click a title to display the document or landing page.

Bronchiolitis

Quick Answers | In-Depth Answers | All Results

Definition

See 'In-Depth Answers' for detailed results. [Print](#)

An acute lower respiratory tract infection, almost exclusively of viral etiology, that produces inflammatory obstruction of the bronchioles

Related Results

- Drug
- Toxicology
- Clinical Checklist
- Disease Other Titles
- Emergency Medical Abstracts

Emergency Medical Abstracts

- A RANDOMIZED TRIAL OF NEBULIZED 3% HYPERTONIC SALINE WITH EPINEPHRINE IN THE TREATMENT OF ACUTE BRONCHIOLITIS IN THE EMERGENCY DEPARTMENT
- BORDETELLA PERTUSSIS INFECTION IS COMMON IN NONVACCINATED INFANTS ADMITTED FOR BRONCHIOLITIS
- CENTRAL APNOEAS IN INFANTS WITH BRONCHIOLITIS ADMITTED TO THE PAEDIATRIC INTENSIVE CARE UNIT
- COST-EFFECTIVENESS OF EPINEPHRINE AND DEXAMETHASONE IN CHILDREN WITH BRONCHIOLITIS

A RANDOMIZED TRIAL OF NEBULIZED 3% HYPERTONIC...

emergency Medical Abstracts

Citation

- Grewal, S., et al. Arch Ped Adol Med 163(11):1007, November 2009. A RANDOMIZED TRIAL OF NEBULIZED 3% HYPERTONIC SALINE WITH EPINEPHRINE IN THE TREATMENT OF ACUTE BRONCHIOLITIS IN THE EMERGENCY DEPARTMENT (25 references)

Background

- In the U.S., hospital admission rates for bronchiolitis increased from 12.9 per 1000 children in 1980 to 31.2 per 1000 in 1996, resulting in a substantial increase in healthcare costs. There is no clear consensus regarding the optimal early treatment of acute bronchiolitis. Four studies reported some improvement in outcomes with use of nebulized hypertonic saline, but these did not involve treatment in the ED.

Methods

- In this study, from the University of Alberta, 46 infants aged six weeks to twelve months presenting to the ED with mild to moderate bronchiolitis were randomized to treatment with 0.5ml of 2.25% racemic epinephrine nebulized in normal or hypertonic (3%) saline and

Disease Other Titles

Click this link to see other types of disease information documents for the same topic. The following type of disease information are available:

- *Acute* - Emergency or immediate care presentations
- *Chronic* - On-going health conditions and issues
- *Prevention & Screening* - Relevant assessment and screening information.

It is possible for a topic with an Acute or Chronic document to also have a Prevention & Screening document. The Acute or Chronic document displays via the landing page. You can click the **Disease Other Titles** link to see the Prevention & Screening document, if one exists.

Related Results

[Drug](#)
[Toxicology](#)

[Clinical Checklist](#)
[Disease Other Titles](#)
[Emergency Medical Abstracts](#)

Emergency Medical Abstracts

EMA from Rick Bukata, MD and Jerry Hoffman, MD is a definitive source of literature review covering a broad scope of topics.

CHAPTER 7: TOXICOLOGY INFORMATION

Accidental poisonings occur with even the most common and seemingly harmless substances. In such situations, having instant access to critical information can save lives. Relied upon in 100% of U.S. poison control centers, the Micromedex® POISINDEX® identifies ingredients for hundreds of thousands of commercial, biological, and pharmaceutical products. Micromedex® links that information directly to detailed documents providing data on clinical effects, range of toxicity, and treatment protocols for exposure.

We create a summary monograph and a detailed monograph for each topic. The Summary Toxicology Information monographs support quick decisions, and POISINDEX Detailed Toxicology monographs support further research and assist in the management of all toxic exposures. They include in-depth knowledge on lab tests, monitoring, toxicokinetics, and more and breaks out data by severity of exposure. Because one editorial group creates all the Micromedex content, treatment recommendations are consistent.

This chapter describes the types of toxicology information available in Micromedex. For information on how to search in Micromedex see ["Chapter 4: Searching Micromedex®" on page 37.](#)

SUMMARY TOXICOLOGY INFORMATION


Summary Toxicology Information is succinct, actionable, and designed to get you an answer very quickly. It is displayed on the middle panel of the *Quick Answers* tab on the landing page. The left panel contains links for navigating the sections of the summary monograph. Click on a link to display that section in the middle panel.

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For example, a search for “benzene” results in the following landing page:

The screenshot shows the Micromedex interface for Benzene. At the top, there are tabs for 'Quick Answers', 'In-Depth Answers', and 'All Results'. Below this is a navigation menu with 'Overview' selected, and sub-links for 'Life Support', 'Clinical Effects', and 'Laboratory/Monitoring'. The main content area is titled 'Overview' and 'Clinical Effects', with a 'Print' icon. A callout box points to the 'Clinical Effects' link in the navigation menu, stating 'Click a link to display a section of the monograph'. Another callout box points to the main text area, stating 'Text of the Summary Toxicology Information monograph'. A third callout box points to a 'Clinical Effects' icon in the bottom right corner, stating 'Scroll down and a back-to-top icon will display in the lower right of the page'. The 'Related Results' sidebar on the right includes links for 'Hazard Management Information Martindale', 'Medical Management Information', 'Product Lookup - Martindale', and 'Product Lookup - Tox & Drug'. A 'Feedback' icon is also visible in the bottom right corner.

Printing

Click the **Print** icon ( **Print**) to print the summary monograph. For more details on printing see [“Printing” on page 86.](#)

DETAILED TOXICOLOGY INFORMATION

Detailed Toxicology Information contains the details required to answer more complex questions, and it is clinically consistent with the Summary Toxicology Information.

From the landing page click the **In-Depth Answers** tab, and the detailed toxicology monograph is displayed in the middle panel. The left panel contains links for navigating the sections of the detailed monograph. Click on a link to display that section in the middle panel.

For example, a search for “radon” results in the Radon landing page, which defaults to the *Quick Answers* tab. Click the **In-Depth Answers** tab to view the detailed toxicology monograph.

The landing page defaults to the Quick Answers tab. Click the In-Depth Answers tab to see the detailed toxicology monograph.

Click a link to display a section of the monograph

Text of the Detailed Toxicology Information monograph

Scroll down and a back-to-top icon will display in the lower right of the page

The screenshot shows the Radon landing page with the following elements:

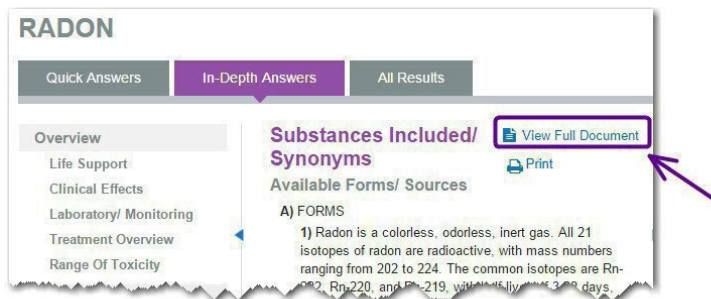
- Radon** title at the top left.
- Navigation tabs: **Quick Answers**, **In-Depth Answers** (selected), and **All Results**.
- Left sidebar menu: Overview, Life Support, Clinical Effects, Laboratory/ Monitoring, Treatment Overview, Range Of Toxicity, **Substances Included/ Synonyms** (selected), Therapeutic/ Toxic Class, Geographical Location, Available Forms/ Strengths.
- Main content area: **Substances Included/ Synonyms** and **Therapeutic/ Toxic Class** sections. The text under "Substances Included/ Synonyms" includes: "A) Radon is a radionuclide derived from the radioactive decay of radium, and can be obtained by bubbling air through a radon gas solution (HSDB , 2002; Lewis, 2001). Radon daughters or progeny are radioactive decay products of radon (Berger, 1990). 1) Radon-222 (radon) is the natural decay product of radium-226, and the sixth decay product of uranium-238 (Berger, 1990). 2) Besides its natural occurrence in the environment, radon has been used as a tracer gas for leak detection, in chemical research, and in radiography (HSDB , 2002; Lewis, 2001). Radon has been used in radiation therapy (HSDB , 2002)."
- Right sidebar: **Related Results** section with links for Management Information, Medical Management Information, Product Lookup - Martindale, and Product Lookup - Tox & Drug. A **Feedback** button is also present.
- Buttons: **View Full Document** and **Print** are located above the main text.
- A **back-to-top** icon (upward arrow) is visible in the lower right corner of the page content area.

Navigating Document Sections

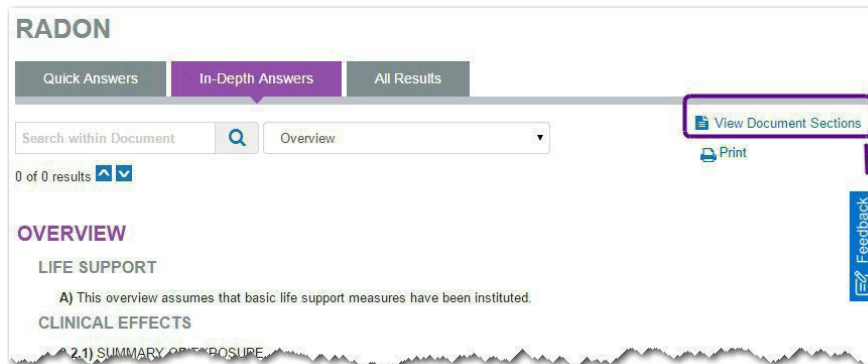
You can use the following methods to navigate within the detailed document sections:

- Arrow up/down keys
- Page up/down keys
- Browser scrollbar
- If you move down in the monograph, a back-to-top icon displays in the lower right of the page.

Viewing the Full Document



Click **View Full Document** to view the entire detailed monograph.



Click **View Document Sections** to return to the panel view.

Navigating the Full Document

When viewing the full detailed monograph you have the following options for moving within the document:

- Arrow Up/Down keys
- Page Up/Page Down keys
- Browser scrollbar
- Drop-down box under the landing page tabs - Select a document section from this list to go directly to that section.
- If you move down in the monograph, a back-to-top icon displays in the lower right of the page.

RADON

Quick Answers | **In-Depth Answers** | All Results

Search within Document

0 of 0 results

AVAILABLE FORMS/SOURCES

A) FORMS

- 1) Radon is a colorless, odorless gas. The most common isotopes are Rn-222, Rn-220, and Rn-218. ((ATSDR, 2000)) Patnaik, 1992
- 2) Radon is an alpha-emitter and has two naturally occurring isotopes, Rn-222 and Rn-220 (Budavari, 2000).
- 3) With a half-life of 3.823 days, Rn-222 is the most common isotope of radon.

B) SOURCES

- 1) Radon is derived from the radioactive decay of uranium and thorium. Approximately 1 gram of radium produces approximately 100 mL of radon per day (HSDB, 2000).
- 2) Radon is produced by alpha-decay of radium and its isotopes (radium, thorium, and actinium). "Radon is [also] obtained by bubbling air through a radon salt solution and collecting the gas plus air" (Lewis, 2001).
- 3) Both uranium-238 and radium-226 occur naturally in most soils and rock (Berger, 1990).
- 4) The radon decay product leaves the soil or rock as it is formed and becomes ubiquitous in the environment (Berger, 1990). Higher radon concentrations are produced in areas with richer sources of the precursor radionuclides, especially when ventilation is poor (Berger, 1990).
- 5) Radon levels are higher in areas with uranium and thorium ore deposits and granite formations. Natural uranium exists in these areas in the form of uranium ore deposits and granite formations. Uranium exists in soil and rocks in small amounts. Radon is released from this radium into the atmosphere. For example, 1 gram of radium produces approximately 0.0001 mL of radon per day (HSDB, 2000).

-- Available Forms/ Sources

- Overview
- Life Support
- Clinical Effects
- Laboratory Use
- Treatment
- Range Of
- Substances Included
- Synonyms
- Therapeutic/Toxic Class
- Specific Substances
- Description
- Geographical Location
- Available Forms/ Sources**
- Clinical Effects
- Summary Of Exposure
- Heent
- Cardiovascular
- Respiratory
- Genitourinary
- Dermatologic
- Reproductive

View Document Sections

Print

Feedback



Select a document section from the drop-down list

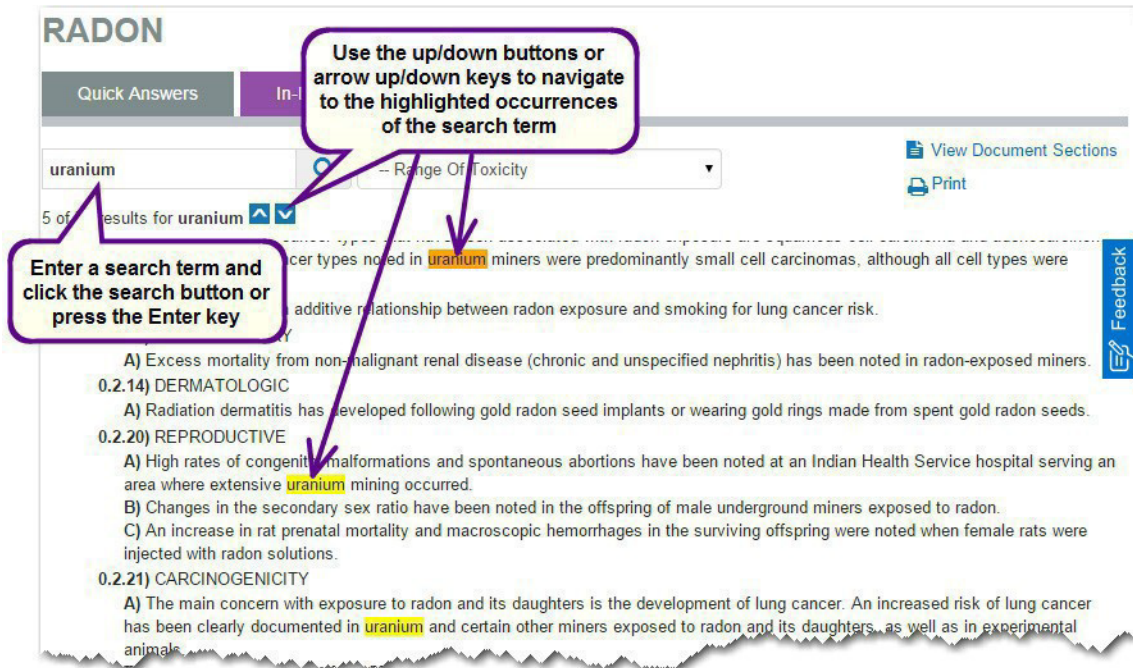
Use the browser scroll bar or the up/down arrow keys or the Page Up/Page Down keys

Scroll down and a back-to-top icon will display in the lower right of the page

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Searching Within a Document

When viewing the full detailed monograph you can search within the document. Simply enter a word or phrase in the search box located below the landing page tabs and click the **search button** or press the **Enter** key. The first occurrence of your search term is highlighted in orange, and subsequent occurrences are highlighted in yellow. Use the **arrow up/down** keys or the **up/down buttons** ( ) to move from one highlighted occurrence to another.



Enter a search term and click the search button or press the Enter key

Use the up/down buttons or arrow up/down keys to navigate to the highlighted occurrences of the search term

RADON

Quick Answers In-

uranium

5 of results for uranium

cer types noted in uranium miners were predominantly small cell carcinomas, although all cell types were

additive relationship between radon exposure and smoking for lung cancer risk.

A) Excess mortality from non-malignant renal disease (chronic and unspecified nephritis) has been noted in radon-exposed miners.

0.2.14) DERMATOLOGIC

A) Radiation dermatitis has developed following gold radon seed implants or wearing gold rings made from spent gold radon seeds.

0.2.20) REPRODUCTIVE

A) High rates of congenital malformations and spontaneous abortions have been noted at an Indian Health Service hospital serving an area where extensive uranium mining occurred.

B) Changes in the secondary sex ratio have been noted in the offspring of male underground miners exposed to radon.

C) An increase in rat prenatal mortality and macroscopic hemorrhages in the surviving offspring were noted when female rats were injected with radon solutions.

0.2.21) CARCINOGENICITY

A) The main concern with exposure to radon and its daughters is the development of lung cancer. An increased risk of lung cancer has been clearly documented in uranium and certain other miners exposed to radon and its daughters, as well as in experimental animals.

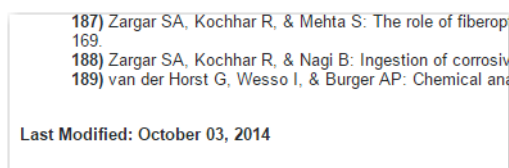
View Document Sections

Print

Feedback

Last Modified Date


Detailed Toxicology Information includes a *last modified date* at the bottom of the References-General Bibliography section.



187) Zargar SA, Kochhar R, & Mehta S: The role of fiberop
169.
188) Zargar SA, Kochhar R, & Nagi B: Ingestion of corrosiv
189) van der Horst G, Wesso I, & Burger AP: Chemical and

Last Modified: October 03, 2014

Printing

Click the Print icon ( Print) to print the detailed monograph. This is available when viewing the document sections or the full document. For more details on printing see ["Printing" on page 86.](#)

RELATED RESULTS

The following related information can be accessed from the landing page:

- [Chapter 8: Alternative Medicine Information](#)
- [Chapter 6: Disease Information](#)
- [Chapter 5: Drug Information](#)
- [“Hazard Management Information” on page 143](#)
- [“Index Nominum” on page 143](#)
- [“Martindale” on page 143](#)
- [“Medical Management Information” on page 143](#)
- [“Product Lookup - Martindale” on page 143](#)
- [“Product Lookup - Tox & Drug” on page 143](#)

In the following example a search was performed for “toluene,” and the Toluene landing page was displayed. Links to related results are available in the right panel when viewing the *Quick Answers* and *In-Depth Answers* tab and in the left panel when viewing the *All Results* tab.

The image displays two screenshots of the Toluene landing page. The top screenshot shows the 'Quick Answers' tab selected, with a callout box labeled 'Toluene landing page' pointing to the top navigation bar. The right panel, titled 'Related Results', lists links for Disease Toxicology, Hazard Management Information, Index Nominum, Martindale, Medical Management Information, Product Lookup - Martindale, and Product Lookup - Tox & Drug. The bottom screenshot shows the 'In-Depth Answers' tab selected, with a callout box labeled 'In-Depth Answers' pointing to the tab. The right panel, titled 'Related Results', lists the same links as the top screenshot. The left panel, titled 'Related Results', lists links for Disease Toxicology, Hazard Management Information, Index Nominum, Martindale, Medical Management Information, Product Lookup - Martindale, and Product Lookup - Tox & Drug. A callout box labeled 'All Results' points to the 'All Results' tab in the top screenshot.

For more information on landing pages see [“Landing Pages” on page 40](#).

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Clicking on a link under *Related Results* displays a list of the related documents. Click a title to display the document or landing page.

The screenshot illustrates the navigation process in Micromedex. At the top, the 'Toluene' page is shown with tabs for 'Quick Answers', 'In-Depth Answers', and 'All Results'. The 'Overview' section is active, displaying a 'Life Support' overview with a 'Print' button. A 'Related Results' sidebar on the right lists categories like 'Disease', 'Toxicology', and 'Hazard Management Information'. A 'Martindale' link is highlighted in the sidebar. A purple arrow points from this link to a 'Martindale' pop-up window. This window shows a list of items, with 'Toluene' highlighted. Another purple arrow points from 'Toluene' to a detailed 'Toluene' page. This detailed page features a table of contents on the left (TOLUENE, Physical And Pharmaceutical Properties, ADVERSE EFFECTS, TREATMENT, AND PRECAUTIONS, Abuse, Handling, Pregnancy, PHARMACOKINETICS, USES) and a main content area with a 'Print' button and an 'OTHER SOURCES' button. The main content includes the title 'Toluene', the source 'MARTINDALE - The Complete Drug Reference', and a section for 'Physical And Pharmaceutical Properties' with a list of synonyms, molecular formula, weight, and CAS registry number.

Hazard Management Information

Hazard Management Information documents can help you understand the issues related to environmental impact including how to implement emergency reaction to chemicals and their impact: Fire, Clean up, Personal protection. These documents also help you manage chemicals safely in the workplace.

Index Nominum

Recognized worldwide, Index Nominum is an international drug directory providing access to over 5,300 substances and derivatives, more than 12,800 synonyms, and over 41,800 tradenames from more than 45 countries. For more details see [“Index Nominum” on page 313](#).

Martindale

This content offers extensive, unbiased, evaluated information on worldwide drugs and related substances. It provides quick and easy searching for pharmacological and therapeutic data, synonyms, and manufacturers’ brand names. For more details see [“Martindale: The Complete Drug Reference” on page 315](#).

Medical Management Information

The Medical Management Information monographs can help you evaluate issues associated with exposure. They deliver information on acute exposure, treatment, and adverse health effects.

Product Lookup - Martindale

Clicking this link performs a search for *Globally distributed drug products in Martindale* in the Tox & Drug Product Lookup tool. See [Chapter 16: Tox & Drug Product Lookup Tool](#) for more details.

Product Lookup -Tox & Drug

Clicking this link performs a *Product or substance name* search in the Tox & Drug Product Lookup tool. See [Chapter 16: Tox & Drug Product Lookup Tool](#) for more details.

Related Results

[Disease](#)
[Toxicology](#)

[Hazard Management Information](#)
[Index Nominum](#)
[Martindale](#)
[Medical Management Information](#)
[Product Lookup - Martindale](#)
[Product Lookup - Tox & Drug](#)

Related Results

[Medical Management Information](#)
[Product Lookup - Martindale](#)
[Product Lookup - Tox & Drug](#)

CHAPTER 8: ALTERNATIVE MEDICINE INFORMATION

Self-medicating with herbals and other dietary supplements is common place, as is treatment with acupuncture, chiropractic care, and homeopathy. You can give your patients a better understanding of these healthcare alternatives with the information found in the alternative medicine content of Micromedex®.

Micromedex can provide you a reliable, comprehensive source of referenced, scientifically sound information about complementary and alternative medicine (CAM) therapies and practices. Designed for healthcare professionals, the information found in Alternative Medicine Information is an indispensable tool for answering the growing number of patients' CAM questions and exploring the possibilities.

We create a summary monograph and a detailed monograph for each topic. The Summary Alt Med Information monographs support quick decisions at the point of care, and the In Depth AltMed Information monographs support further research and aid clinicians when making difficult treatment decisions. Because one editorial group creates all the Micromedex content, treatment recommendations are consistent.

This chapter describes the types of alternative medicine information available in Micromedex. For information on how to search in Micromedex see ["Chapter 4: Searching Micromedex®" on page 37.](#)

SUMMARY ALT MED INFORMATION


Summary Alt Med Information is succinct, actionable at the point-of-care, and designed to get you an answer very quickly. It is displayed on the middle panel of the *Quick Answers* tab on the landing page. The left panel contains links for navigating the sections of the summary monograph. Click on a link to display that section in the middle panel.

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For example, a search for “garlic” results in the Garlic landing page being displayed:

The screenshot shows the Micromedex interface for the Garlic monograph. The page is titled "Garlic" and has three tabs: "Quick Answers", "In-Depth Answers", and "All Results". The "In-Depth Answers" tab is selected. The main content area is divided into sections: "Contraindications/ Warnings", "Lactation", and "Toxicology". The "Lactation" section is expanded, showing a list of items: "garlic in greater amounts than found in food should be avoided during lactation". A callout box points to the "Lactation" link in the left sidebar, stating "Click a link to display a section of the monograph". Another callout box points to the "Text of the Summary Alt Med Information monograph" in the main content area. A third callout box points to a "Lactation" link in the bottom right corner, stating "Scroll down and a back-to-top icon will display in the lower right of the page".

Printing

Click the **Print** icon ( **Print**) to print the summary monograph. For more details on printing see [“Printing” on page 86.](#)

IN DEPTH ALT MED INFORMATION

In Depth Alt Med Information contains the details required to answer more complex questions, and it is clinically consistent with the Summary Alt Med Information.

From the landing page click the **In-Depth Answers** tab, and the detailed alternative medicine monograph is displayed in the middle panel. The left panel contains links for navigating the sections of the detailed monograph. Click on a link to display that section in the middle panel.

For example, a search for “echinacea” results in the Echinacea landing page, which defaults to the *Quick Answers* tab. Click the **In-Depth Answers** tab to view the detailed alternative medicine monograph.

The landing page defaults to the Quick Answers tab. Click the In-Depth Answers tab to see the detailed alternative medicine information monograph.

Text of the detailed alternative medicine monograph

Click a link to display a section of the monograph

Scroll down and a back-to-top icon will display in the lower right of the page

The screenshot shows the Echinacea monograph page with the following elements:

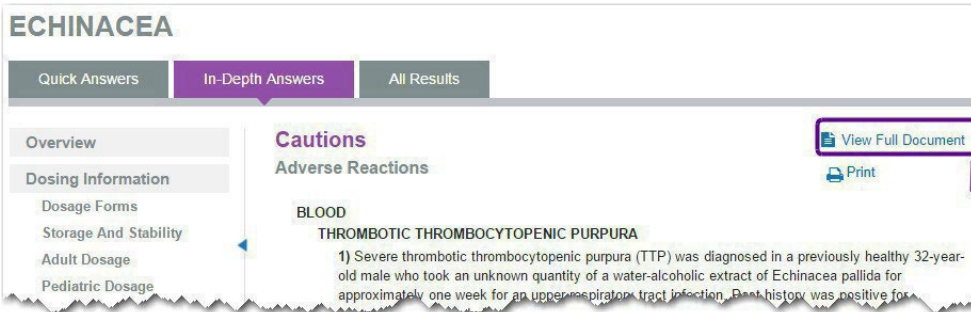
- Navigation Tabs:** Quick Answers, In-Depth Answers (selected), All Results.
- Left Sidebar:** Overview, Dosing Information (Dosage Forms, Storage And Stability, Adult Dosage, Pediatric Dosage), Pharmacokinetics (Adme), Cautions (Contraindications, Precautions, Adverse Reactions, Teratogenicity, Effects In), and a Feedback icon.
- Main Content Area:** Cautions, Adverse Reactions, and a detailed text block under the heading "THROMBOTIC THROMBOCYTOPENIC PURPURA".
- Right Sidebar:** Drug Toxicology, Herbal Medicines, Interactions Handouts, Martindale, Patient Handouts, Product Lookup - Martindale, and Product Lookup - Tox & Drug.
- Callouts:**
 - One points to the "In-Depth Answers" tab.
 - Another points to the "Adverse Reactions" link in the sidebar.
 - A third points to the main text block.
 - A fourth points to a "Back to Top" icon in the bottom right corner.

Navigating Document Sections

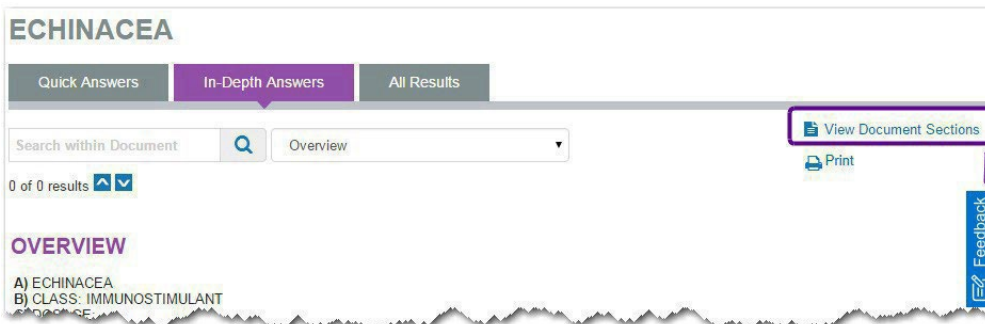
You can use the following methods to navigate within the detailed document sections:

- Arrow up/down keys
- Page up/down keys
- Browser scrollbar
- If you move down in the monograph, a back-to-top icon displays in the lower right of the page.

Viewing the Full Document



Click **View Full Document** to view the entire detailed monograph.



Click **View Document Sections** to return to the panel view.

Navigating the Full Document

When viewing the full detailed monograph you have the following options for moving within the document:

- Arrow Up/Down keys
- Page Up/Page Down keys
- Browser scrollbar
- Drop-down box under the landing page tabs - Select a document section from this list to go directly to that section.
- If you move down in the monograph, a back-to-top icon displays in the lower right of the page.

ECHINACEA

Quick Answers | **In-Depth Answers** | All Results

Search within Document

0 of 0 results

DRUG INTERACTIONS

DRUG-DRUG COMBINATIONS

AZATHIOPRINE

- 1) Summary: Human studies with echinacea (Berg et al, 1998; et al, 1997). Animals treated indicates immunostimulation.
- 2) Adverse Effect: decrease
- 3) Clinical Management: Sin reduced efficacy could be m should be avoided during az
- 4) Severity: moderate
- 5) Onset: delayed
- 6) Documentation: poor
- 7) Probable Mechanism: immune system stimulation by echinacea

BASILIXIMAB

- 1) Summary: Human studies have demonstrated an increase in granulocytes, monocytes, and lymphocytes in response to treatment with chinac... Parham... Melchart et al, 1995), and increased natural killer cell function (See

- Drug Interactions
- Overview
- Dosing Information
- Dosage Forms
- Storage And Stability
- Adult Dosage
- Pediatric Dosa
- Pharmacokinetic
- Adme
- Cautions
- Contraindications
- Precautions
- Adverse Reactions
- Teratogenicity/ Effects In Pregnancy
- Drug Interactions**
- Clinical Applications
- Place In Therapy
- Mechanism Of Action/ Pharmacology
- Therapeutic Uses
- Comparative Efficacy
- References

Select a document section from the drop-down list



Use the browser scroll bar or the up/down arrow keys or the Page Up/Page Down keys

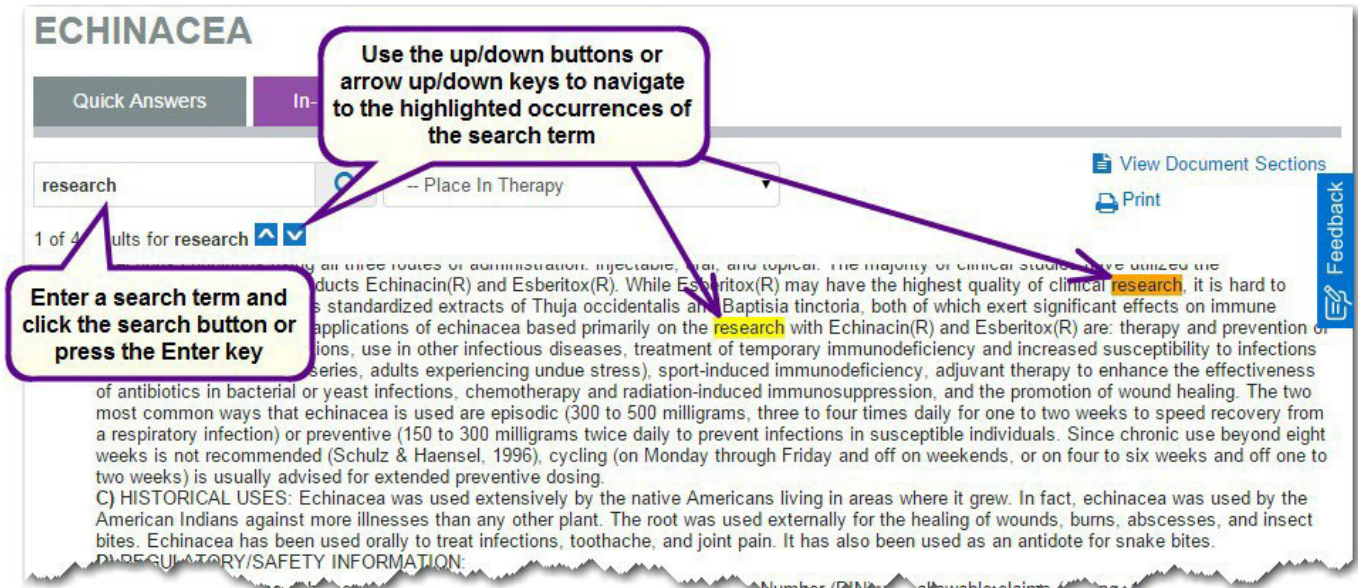
Scroll down and a back-to-top icon will display in the lower right of the page

Feedback

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Searching Within a Document

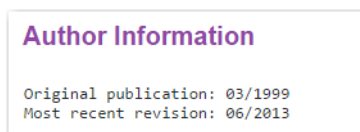
When viewing the full detailed monograph you can search within the document. Simply enter a word or phrase in the search box located below the landing page tabs and click the **search button** or press the **Enter** key. The first occurrence of your search term is highlighted in orange, and subsequent occurrences are highlighted in yellow. Use the **arrow up/down** keys or the **up/down buttons** ( ) to move from one highlighted occurrence to another.



The screenshot shows the Micromedex interface for Echinacea. At the top, the word "ECHINACEA" is displayed in large blue letters. Below it, there are tabs for "Quick Answers" and "In-". A search box contains the term "research", and a search button is visible. Below the search box, it says "1 of 4 results for research" with up and down arrow icons. The main text area contains several paragraphs of text, with the word "research" highlighted in orange in the first paragraph and in yellow in the second. A callout box with a purple border and white background points to the search box and the search button, containing the text: "Enter a search term and click the search button or press the Enter key". Another callout box with a purple border and white background points to the up and down arrow icons, containing the text: "Use the up/down buttons or arrow up/down keys to navigate to the highlighted occurrences of the search term". On the right side of the interface, there are buttons for "View Document Sections" and "Print". A vertical "Feedback" button is also visible on the far right.

Most Recent Revision


In Depth Alt Med Information contains a *most recent revision date* in the Author Information section.



The "Author Information" box is a white rectangle with a purple header. It contains the following text:

Original publication: 03/1999
Most recent revision: 06/2013

Printing

Click the Print icon ( Print) to print the detailed monograph. This is available when viewing the document sections or the full document. For more details on printing see ["Printing" on page 86](#).

RELATED RESULTS

The following related information can be accessed from the landing page:

- [Chapter 6: Disease Information](#)
- [Chapter 5: Drug Information](#)
- [Chapter 7: Toxicology Information](#)
- [“Interactions Handouts” on page 154](#)
- [“Martindale” on page 154](#)
- [“Patient Handouts” on page 154](#)

In the following example a search was performed for “ginkgo,” and the Ginkgo Biloba landing page is displayed. Links to related results are available in the right panel when viewing the *Quick Answers* and *In-Depth Answers* tab and in the left panel when viewing the *All Results* tab.

Ginkgo Biloba landing page

Quick Answers | In-Depth Answers | All Results

Name Info
 Class
 • antioxidant, nootropic (cognitive enhancing agent)

Dosing & Indications
 Adult Dosing
 Indications

Contraindications/Warnings
 Contraindications
 Pregnancy Category

Ginkgo Biloba
 Quick Answers | In-Depth Answers | All Results

1-15 of 471 Results for "GINKGO B

Related Results

- Drug Toxicology
- Herbal Medicines
- Interactions Handouts
- Martindale
- Patient Handouts
- Product Lookup - Martindale
- Product Lookup - Tox & Drug

Filter by

- All (471)
- Drug (404)
- Disease (6)
- Toxicology (2)
- Alternative Medicine (57)
- Productive Risk (2)

Ginkgo Biloba
 Quick Answers | In-Depth Answers | All Results

Overview | View Full Document | Print

A) GINKGO BILOBA
B) CLASS: ANTIOXIDANT, NOOTROPIC (COGNITIVE ENHANCING AGENT)
C) DOSAGE:

1) IMPORTANT NOTE: Dosing of herbal preparations is highly dependent on a variety of factors, such as growing and harvesting conditions, processing and extraction methods used, and the dosage form chosen by the manufacturer. Standardization to single constituent markers has not been established. Since no official standards have been established to regulate the production of herbal medicines in the United States, ranges must be employed as guidelines.

2) ADULT:

- a) CEREBRAL INSUFFICIENCY, dry extract, oral: 120 mg to 240 mg standardized extract containing 24% ginkgoflavonglycosides and 6% terpenes administered daily in 3 divided doses.
- b) COGNITIVE ENHANCEMENT, dry extract, oral: 120 mg to 240 mg standardized extract containing 24% ginkgoflavonglycosides and 6% terpenes administered daily in 3 divided doses.

Clicking on a link under *Related Results* displays a list of the related documents. Click a title to display the document or landing page.

Ginkgo Biloba

Quick Answers | In-Depth Answers | All Results

Name Info

Class

Dosing & Indications

Adult Dosing

Indications

Contraindications/Warnings

Contraindications

Pregnancy Category

Lactation

Drug Interactions (single)

Adverse Effects

Administration

How Supplied

Name Info Print

Class

- antioxidant, nootropic (cognitive enhancing agent)

Related Results

- Drug
- Toxicology
- Herbal Medicines
- Interactions Handouts
- Martindale**
- Patient Handouts
- Product Lookup - Martindale
- Product Lookup - Tox & Drug

Martindale

- Ginkgo Biloba**
- Miscellaneous Drugs and Other Substances

Print Close

GINKGO BILOBA

Physical And Pharmaceutical Properties

PROPRIETARY NAMES

ADVERSE EFFECTS AND PRECAUTIONS

Poisoning

Pregnancy and breast feeding.

INTERACTIONS

USES AND ADMINISTRATION

Cerebrovascular disorders.

Dementia.

Peripheral vascular disorders.

Tinnitus.

Ginkgo Biloba

MARTINDALE - The Complete Drug Reference OTHER SOURCES

See also Miscellaneous Drugs and Other Substances

Physical And Pharmaceutical Properties

- Synonyms: Árbol de los cuarenta escudos; EGB-761; Fossil Tree; GBE-761; Ginkgo biloba; Ginkgo, feuille de (ginkgo leaf); Ginkgo folium (ginkgo leaf); Ginkgobläd (ginkgo leaf); JinanovY list (ginkgo leaf); Kew Tree; Maidenhair Tree; Neidonhiuspuunlehti (ginkgo leaf); Salisburia adiantifolia
- Pharmacopoeias: In Chin., Eur. (see About Martindale), and US. Eur. (see About Martindale) also includes Ginkgo Dry Extract, Refined and Quantified. US includes a powdered extract.
- Ph. Eur. 8 (Ginkgo Leaf). The whole or fragmented dried leaf of Ginkgo biloba containing not less than 0.5% of flavonoids, calculated as flavone glycosides with reference to the dried drug. The leaf is greyish

Interactions Handouts

Alternative Medicine Reactions documents contain easy-to-understand materials to help you educate patients about potential herbal and dietary supplement interactions. They discuss the potential for interactions between alternative medicines and other drugs, dietary supplements, food, alcohol, and tobacco. Designed to help educate patients, supporting evidence and advice about what to do if experiencing an interaction are included.



Martindale

This content offers extensive, unbiased, evaluated information on worldwide drugs, herbs, and related substances. It provides quick and easy searching for pharmacological and therapeutic data, synonyms, and manufacturers' brand names. For more details see [“Martindale: The Complete Drug Reference” on page 315](#).

Patient Handouts

Alternative Medicine for Patient documents offer fully referenced patient counseling materials, written and peer reviewed by representatives from both conventional Western medicine and the alternative medicine communities. For more details see [“Alternative Medicine for Patient” on page 307](#).

OTHER ALTERNATIVE MEDICINE INFORMATION

In addition to the Summary Alt Med Information and In Depth Alt Med Information and their related documents, all searches in Micromedex included the following alternative medicine content:

- **Alt Med Consults** - These documents provide crucial information of interest to those needing information on herbal medicines and other dietary supplements. Topics include FDA warnings, pregnancy risk categories, and guidelines on dosing, safety and efficacy issues.
- **Alt Med Protocols** - Alt Med Protocols provide complementary and alternative medicine (CAM) information and recommends methods for successfully blending CAM therapies with conventional medicine to offer patients a full range of options and help optimize their treatment outcomes.

The following examples depict scenarios where these documents are available from the intermediate search results. For more details on intermediate search results see [“Intermediate Search Results” on page 83](#).

Example 1 - Alt Med Consults

1. Perform a search for “botanical safety.”
2. There are multiple results for Alt Med Consults documents in the intermediate search results, including the title BOTANICALSAFETY HANDBOOK TERMS - DEFINITIONS.

The screenshot shows a search results page with the following elements:

- Header:** 598 results found for: "botanical safety"
- Filter by:**
 - All (598)
 - Drug (38)
 - Disease (62)
 - Toxicology (44)
 - Alternative Medicine (441)
 - Reproductive Risk (13)
- Results (1-15 of 598):**
 - Sativex Oromucosal Spray
 - Drug: Summary of Product Characteristics (eMC)
 - 1:1% (v/v) THC botanical drug substance (BDS) and CBD BDS, no relevant induction of...
 - BOTANICAL SAFETY HANDBOOK TERMS - DEFINITIONS**
 - Alternative Medicine: Evidence based herbal and dietary information (AltMedDex® Consults)
 - American Herbal Product Association's Botanical Safety Handbook: guidelines for the safe use and labeling for herbs...
 - BOTANICAL TERMS**
 - Toxicology: Detailed evidence-based information
 - QUINOLONE SAFETY IN PEDIATRICS**
 - Drug: Evidence-based drug report (Drug Consults)
 - QUINOLONE SAFETY IN PEDIATRICS RESPONSE RESPONSE Multiple studies and literature reviews demonstrated...
 - SAFETY IN CONFINED SPACES - NIOSH PUB 87-113**
 - Toxicology: Detailed evidence-based information
 - HERBAL SUPPLEMENTS - SAFETY**
 - Alternative Medicine: Evidence based herbal and dietary information (AltMedDex® Consults)
 - ... of well-documented cases of botanical toxicity that have occurred over the past decade. Public trust...
 - December 10, 2007 - LMWH associated with greater safety and similar efficacy as UFH during PCI
 - Disease: Brief reports on new disease information (Studies and Alerts)
 - Study - LMWH associated with better safety and efficacy than UFH during PCI

A callout box labeled "Search results for Alt Med Consults" has arrows pointing to the "BOTANICAL SAFETY HANDBOOK TERMS - DEFINITIONS" and "HERBAL SUPPLEMENTS - SAFETY" results.

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Example 2 - Alt Med Protocols

1. Perform a search for "arthropod bites"
2. The Alt Med Protocol document ARTHROPOD BITES AND ENVENOMATIONS is in the intermediate search results.

66 results found for: "arthropod bites"

All Results

Filter by

- All (66)
- Drug (4)
- Disease (9)
- Toxicology (51)
- Alternative Medicine (1)
- Reproductive Risk (1)

1-15 of 66 Results for "arthropod bites"

Print

Feedback

Alt Med Protocols search result

ARTHROPOD BITES AND ENVENOMATIONS
Alternative Medicine: Complimentary and alternative medicine info for clinical practice (*AltMedDex® Protocols*)
ARTHROPOD BITES AND ENVENOMATIONS DISEASE/CONDITION OVERVIEW DISEASE/CONDITION OVERVIEW Arthropod bites ...

ARTHROPODS
Toxicology: Detailed evidence-based information
...reaction varies, depending on the **arthropod**, the number of envenomations, and the sensitivity of the patient...

ARTHROPODS
Toxicology: Summary topic

ARTHROPODS
Toxicology: Information to evaluate and treat acute exposures (*MEDTEXT®*)
Dermatofibroma has been linked to **arthropod bites**. A study of the histologic characteristics of 100 dermatofibromas found...

STINGRAY BITES
Reproductive Risk: Environmental hazards to human reproduction and development (*REPROTOX®*)
...release of venom, while stingray **bites** do not. No information is available effects of these injuries...

RANDOMIZED CONTROLLED TRIAL OF PROPHYLACTIC ANTIBIOTICS FOR DOG BITES WITH REFINED COST MODEL
... Medical ... Bukata, MD and Jerry

CHAPTER 9: REPRODUCTIVE RISK INFORMATION

Reproductive Effects content is an essential tool in supporting patient outcomes in reproductive contexts. It is proven to help identify potential hazards, reduce exposures, prevent possible medical and legal complications, and educate patients to make informed decisions. As a medical counseling tool, the set of databases is the single most comprehensive compilation of reproductive risk information databases available.

Exposures to even common substances can be dangerous. Reproductive Effects in Micromedex® presents in-depth reviews on full-range health effects of chemicals and substances commonly encountered in the home and workplace.

Reproductive Effects includes the following modules:

- REPROTEXT® Reproductive Hazard Reference: Presents in-depth reviews on full-range health effects of industrial chemicals commonly encountered in the workplace.
- REPROTOX® Reproductive Hazard Information, from the Reproductive Toxicology Center, Bethesda, MD: Covers the impact of the physical and chemical environment on human reproduction and development.
- Shepard's Catalog of Teratogenic Agents, Developed by Dr. Thomas H. Shepard, Professor Emeritus of Pediatrics, University of Washington, and co-authored by Dr. Janine E. Polifka, Clinical Lecturer of Pediatrics, University of Washington: Contains up-to-date information on teratogenic agents including chemicals, food additives, household products, environmental pollutants, pharmaceuticals, and viruses.
- TERIS Teratogen Information System, developed by the University of Washington: Provides current information on the teratogenic effects of drugs and environmental agents. Agent summaries derived from thorough literature reviews rate reproductive risk and explain data used to determine the rating. Retrieval of agent summaries can be done using domestic, international, generic, and proprietary names.

This chapter describes the reproductive risk information available in Micromedex and gives general instructions for how to search for it. For detailed information on how to search in Micromedex see ["Chapter 4: Searching Micromedex®" on page 37](#).

Searching for Reproductive Risk Information

Reproductive risk information documents can be accessed from the intermediate search results and from the All Results tab on a landing page. See ["Intermediate Search Results" on page 83](#) and ["Landing Pages" on page 40](#).

The following steps are an example for accessing reproductive risk information:

1. Perform a search for "natural gas"
2. Click **Reproductive Risk** on the left side of the intermediate search results page

3. Click a title in the results to view the document

All Results

Filter by

- All (1575)
- Drug (179)
- Disease (16)
- Toxicology (1112)
- Lab (1)
- Alternative Medicine (65)
- Reproductive Risk (202)**

1-15 of 202 Results for "natural gas"

NATURAL GAS
 Reproductive Risk: Reproductive risk information (REPROTEXT®)
 1.1 SYNONYMS SYNONYMS A NATURAL GAS GAS , NATURAL 1.2 IDENTIFIERS IDENTIFIERS 1.2.1 CAS...

MUSTARD GAS
 Reproductive Risk: Reproductive risk information (REPROTEXT®)
 LOST" KAMPSTOFF "LOST" LOST MUSTARD GAS MUSTARD HD MUSTARD, SULFUR MUSTARD VAPOR SCHWEFEL-LOST S-LOST...

CHLORINE GAS
 Reproductive Risk: Reproductive risk information (REPROTEXT®)
 ...deposits, in brines, and in natural deposits of sylvite and camallite (Bingham et al, 2001). 2...

GASOLINE, NATURAL W-GRADE
 Reproductive Risk: Reproductive risk information (REPROTEXT®)
 1 SYNONYMS SYNONYMS A GASOLINE, NATURAL W-GRADE BENZIN GASOLINE, NATURAL NATURAL GASOLINE PETROL, NATURAL , W...

LIQUIFIED PETROLEUM GAS
 Reproductive Risk: Reproductive risk information (REPROTEXT®)
 SYNONYMS SYNONYMS A LIQUIFIED PETROLEUM GAS BOTTLED GAS LPG PETROLEUM GAS , LIQUEFIED 1.2 IDENTIFIERS IDENTIFIERS...

ARSINE GAS
 Reproductive Risk: Teratogenic effects of substances (Shepard's)

Searching by CAS Registry Number

You can search by CAS Registry Number (unique numerical identifier assigned by Chemical Abstracts Service to every chemical substance described in the open scientific literature) to find Reprotex and Shepard's documents. For example, a search for "67-66-3" returns these reproductive risk results.

- CHLOROFORM**
 Reproductive Risk: Reproductive risk information (REPROTEXT®)
 NUMBER CAS REGISTRY NUMBER A 67-66-3 (Chloroform) 1.2.2 NIOSH/RTECS NUMBER NIOSH/RTECS NUMBER...
- CHLOROFORM**
 Reproductive Risk: Teratogenic effects of substances (Shepard's)
 Synonyms/Identifiers: Synonyms/Identifiers: CAS 67-66-3 Ruddick et al. (1980) gavaged rats with 100 mg per...

CHAPTER 10: LAB INFORMATION

Micromedex® provides current, accurate, and concise lab information you can use with confidence. It also provides the most critical knowledge presented at the summary level with quick access to more detailed information.

The Micromedex® Lab Recommendations database contains critical information relevant to:

- Physicians
 - Saves time by providing information on which tests are appropriate for a condition or diagnosis. Reduces the dependency on the lab, the library, or reference textbooks.
 - Saves time by providing guidance and information when interpreting test results. Reduces the research time required to consult additional sources of information.
- Nurses
 - Answers questions about proper collection, storage, and administration procedures.
 - Provides information on unfamiliar or rarely administered tests.
 - Enables nurses to find answers to lab-related questions after lab hours or when a lab technician is unavailable
- Lab Personnel
 - Saves time by reducing the number of calls from clinicians
 - Can communicate lab protocols, or reference ranges, or notes specific to your facility
- Pharmacy Personnel
 - Provides information when monitoring patient drug levels, therapeutic levels, and possible side effects related to lab tests

This chapter describes the lab information available in Micromedex and gives general instructions for how to search for it. For detailed information on how to search in Micromedex see ["Chapter 4: Searching Micromedex®" on page 37](#).

Searching for Lab Information

Laboratory test information can be found by searching on a test name, a LOINC code, or keyword. Lab Recommendations documents can be accessed from the intermediate search results and from the All Results tab on a landing page. For more details see ["Intermediate Search Results" on page 83](#) and ["Landing Pages" on page 40](#).

Searching by Name

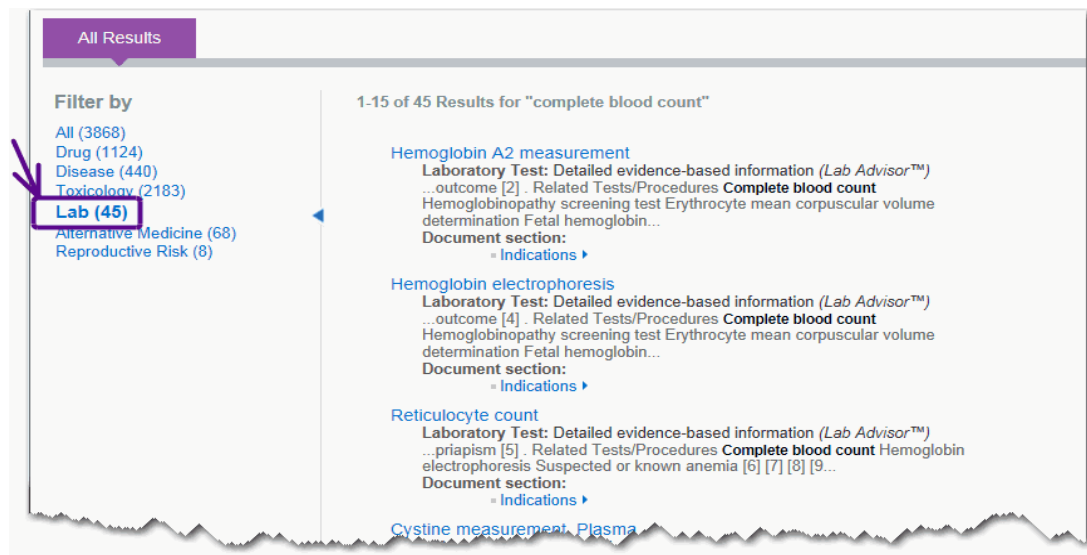
The following example depicts the intermediate search results that are displayed when performing a search for "myoglobin." You can click the **Lab** link on the left side of the page to filter the results for only lab information.

Searching by Keyword

You can also search for lab information using any of the following as your search term:

- Signs and symptoms
- Diagnoses
- Indications
- Any context string that can be found within the summary

In the following example a search was performed on “complete blood count,” and then the user clicked the **Lab** link on the left side of the intermediate search results page.



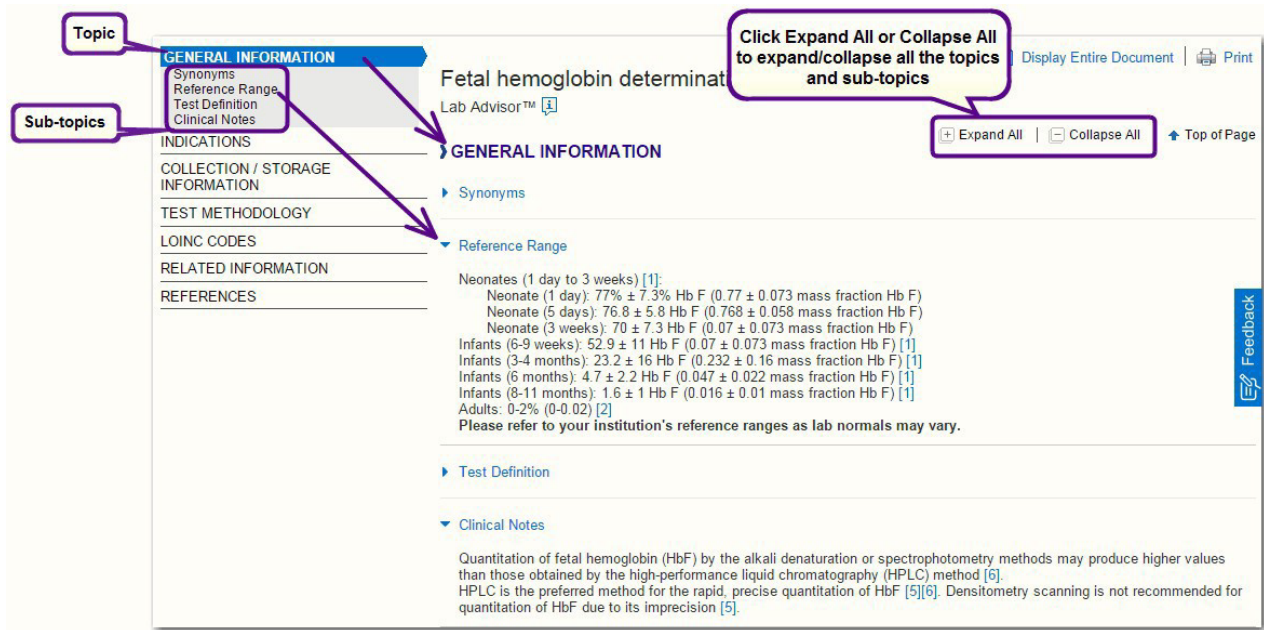
Viewing Lab Information

When you click on a Lab Recommendations title in the intermediate search results, the document is displayed at the *General Information* section. You have the following options for moving within the document:

- Outline links on the left side of the page for other topics (and sub-topics)
- Links to other lab information and other content
- Browser scrollbar
- Arrow Up/Down keys
- Page Up/Page Down keys

Topics Links

All topics with information for this laboratory test are shown as active links in the outline list on the left side of the page. Clicking the link opens the page positioned at the beginning of the selected topic.



Sub-topics

If sub-topics exist, clicking on the topic link expands the list showing the sub-topics below. Go directly to a sub-topic by clicking the sub-topic link.

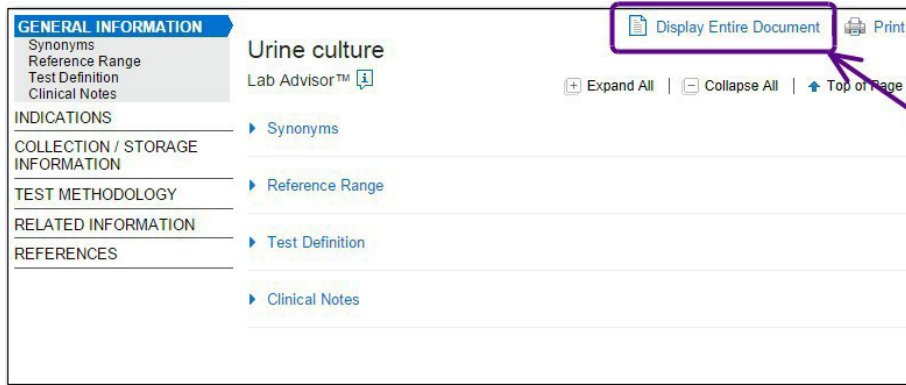
Links Within Lab Recommendations

Links shown within the lab summary mean that further or related information exists within Lab Recommendations or in other types of content. Links can also open definitions for items shown in the information, such as: Strength of Evidence, Strength of Recommendation. Click the link to view the information.

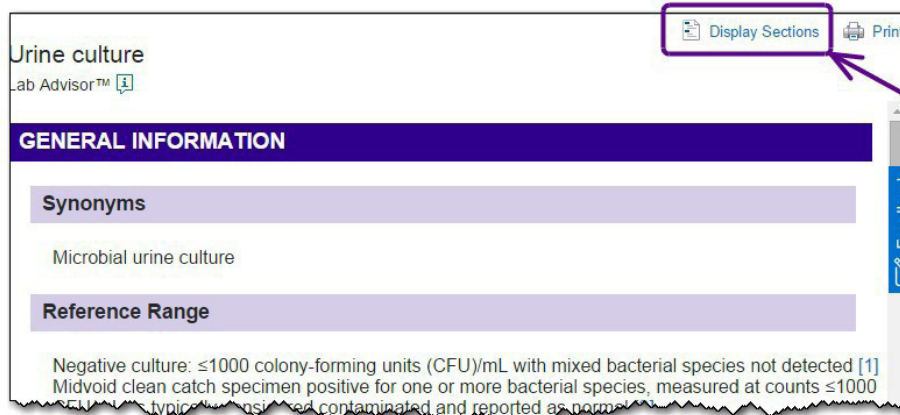
The screenshot shows a lab recommendation page for "Fetal hemoglobin determination" by Lab Advisor™. On the left, a sidebar lists various sections: GENERAL INFORMATION, INDICATIONS, COLLECTION / STORAGE INFORMATION, TEST METHODOLOGY, LOINC CODES, RELATED INFORMATION, and REFERENCES. The "GENERAL INFORMATION" section is expanded, showing sub-topics like Synonyms, Reference Range, Test Definition, and Clinical Notes. A callout box labeled "Topic" points to the "GENERAL INFORMATION" header. Another callout labeled "Sub-topics" points to the sub-topics list. A third callout labeled "Click Expand All or Collapse All to expand/collapse all the topics and sub-topics" points to the "Expand All" and "Collapse All" buttons. The main content area displays the "Reference Range" for various age groups, including Neonates, Infants, and Adults, with a note to refer to institutional reference ranges.

This diagram illustrates a cross-link between two lab recommendation documents. The top document is for "Brucella species culture" by Lab Advisor™. Under the "Tests & Procedures" section, there is a link for "Indirect Coombs test". A callout box labeled "Link to another Lab Recommendations document" points to this link. An arrow from the link points to a second, detailed lab recommendation page for "Indirect Coombs test" by Lab Advisor™. This second page shows its own sidebar with sections like GENERAL INFORMATION, INDICATIONS, COLLECTION / STORAGE INFORMATION, TEST METHODOLOGY, LOINC CODES, COMMON PANELS, and REFERENCES. The "GENERAL INFORMATION" section is expanded, showing sub-topics like Synonyms, Reference Range, Test Definition, and Clinical Notes.

Viewing Entire Document



Click **Display Entire Document** to view the entire monograph.



Click **Display Sections** to return to the section view.

References

When in the section view you can view the references by clicking on the **References** link in the outline on the left side of the page or by clicking a citation number within the text, which opens a pop-up window containing the reference.

The diagram illustrates two methods for accessing references. On the left, a document titled "Urine culture" is shown with a sidebar containing sections like "GENERAL INFORMATION", "INDICATIONS", "COLLECTION / STORAGE INFORMATION", "TEST METHODOLOGY", "RELATED INFORMATION", and "REFERENCES". The "REFERENCES" section is highlighted with a blue bar and a purple arrow points to it. On the right, a "Urine culture" pop-up window displays "Lab Advisor™" and "General Technique :". Under "Techniques include", there is a list: "Standard loop method", "Filter paper method", and "Multipoint inoculation". A citation number "[23]" is highlighted in a purple box, with a purple arrow pointing down to a "REFERENCE" pop-up window. This window shows the full citation for reference 23: "23. Graham JC & Galloway A: ACP Best Practice No 167 diagnosis of urinary tract infection. J Clin Pathol 2001; 54".

When viewing the entire document you can view the references by clicking a citation number within the text, which takes you to that specific reference in the References section.

The diagram shows a document section titled "COLLECTION/STORAGE INFORMATION". The text describes urine collection methods and includes citations [2], [23], and [2]. A citation number "[23]" is highlighted in a purple box, with a purple arrow pointing down to a "REFERENCES" section. This section contains a list of references, with reference 23 highlighted: "23. Graham JC & Galloway A: ACP Best Practice No 167: the laboratory diagnosis of urinary tract infection. J Clin Pathol 2001; 54(12):911-919." Other references listed include: "24. Sodeman TM: A practical strategy for diagnosis of urinary tract infections. Clin Lab Med 1995; 15(2):235-250.", "25. Stamm WE & Hooton TM: Management of urinary tract infections in adults.. N Engl J Med 1993; 329:1328-1334.", "26. Henry JB: Clinical Diagnosis and Management by Laboratory Methods, 20th ed. Saunders, 2001.", and "27. Hooton TM, Bradley SF, & Cardenas DD: Diagnosis, prevention, and treatment of catheter-associated urinary tract infection in adults: 2009 International Clinical Practice Guidelines from the Infectious Diseases Society of America. Clin Infect Dis 2010; 50(5):625-.".

MICROMEDEX® - USER GUIDE


30. Al-Orifi F, McGillivray D, Tange S, et al: Urine culture fro
31. Hooton TM & Stamm WE: Diagnosis and treatment of u
32. Rosser CJ, Bare RL, & Meredith JW: Urinary tract infect

Last Modified: January 05, 2014

Last Modified Date

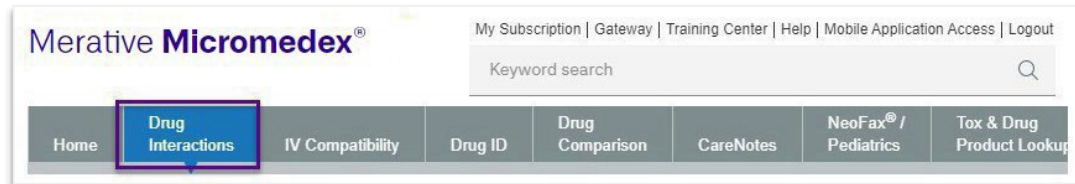
Lab Information includes a *last modified date* at the bottom of the Reference section.

Printing

Click the Print icon ( [Print](#)) to print the monograph. This is available when viewing the document sections or the entire document. For more details on printing see [“Printing” on page 86.](#)

CHAPTER 11: DRUG INTERACTIONS TOOL

The Drug Interactions tool in Micromedex® helps with checking for interacting drug ingredients, their effects, and clinical significance.








With the correct information available at the point of care, a significant number of adverse drug events can be prevented. The interactions tool provides instant access to drug-drug, drug-food, drug-ethanol, and drug-lab test reactions.

Some additional features and information presented in drug interactions may depend on your subscription. Customers subscribing to the Complete Drug Interactions will see functionality and links not displayed to subscribers of Standard Drug Interactions. For example, Complete Drug Interactions customers will also see drug-tobacco, drug-pregnancy, drug-lactation, and drug-allergy reactions.

Note: ANVISA (Brazil National Health Surveillance Agency) approved drugs are also available in the Drug Interactions Tool. Interactions for these drugs include: Drug-Drug, Drug-Food, Drug-Ethanol, Drug-Lab, Drug-Tobacco, Drug-Allergy, Drug-Disease, Drug-Pregnancy, Drug-Lactation, General Precautions, and Ingredient Duplication.

SCREENING FOR DRUG INTERACTIONS

A single drug can be checked for all known interactions, or you can screen for interactions for a list of drugs. Patient drug allergies can also be added into the interaction check. Use the *Drug Interactions* page to check for interaction information. Results are grouped by interaction type: drug-drug, drug-food, drug-lab, etc. Interactions found within each type are sorted by severity.

-  **Contraindicated** - the drugs are contraindicated for concurrent use
-  **Major** - the interaction may be life-threatening and/or require medical intervention to minimize or prevent serious adverse effects
-  **Moderate** - the interaction may result in an exacerbation of the patient's condition and/or require an alteration in therapy
-  **Minor** - the interaction would have limited clinical effects. Manifestations may include an increase in the frequency or severity of side effects but generally would not require a major alteration in therapy.
-  **Unknown** - unknown

Documentation Ratings

The level of documentation available for the interaction is also shown. A complete legend of all documentation ratings is shown at the bottom of the page. Hovering over the rating in the legend opens a pop-up with the full definition. The ratings and their definitions follow:


- *Excellent* - controlled studies have clearly established the existence of the interaction
- *Good* - documentation strongly suggests the interactions exists, but well-controlled studies are lacking
- *Fair* - available documentation is poor, but pharmacologic considerations lead clinicians to suspect the interaction exists; or, documentation is good for a pharmacologically similar drug
- *Unknown* - unknown


Building the Search for Interactions


1. Type the first drug (brand name or generic) in the *Search* field. If you are unsure of the spelling, just type as many characters as you know.

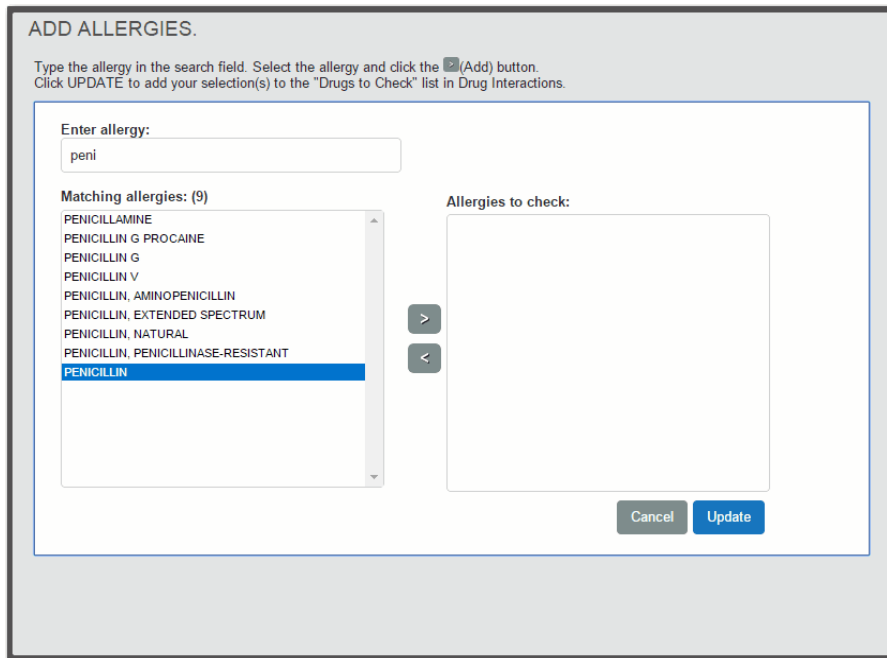


Tip: You can build an interaction search using a brand name, generic name, or herb/supplement name.

2. As you type, the application narrows your search results in the *Matching Drug Names* list based on the characters you have entered. The more characters you type, the more focused the results. The number of matches to the drug name is also updated as you type.
3. If the drug you are interested in is listed in the *Matching Drug Names* list:
 - Click on the drug name and then click the  button to add the drug to the *Drugs to Check* list - or -
 - Press the **Enter** key (if the drug is shown highlighted in the “*Matching Drug Names*” column) - or -
 - Double-click the drug name
4. Repeat these steps until you have all the drugs you wish to check for interactions in the *Drugs to Check* list.

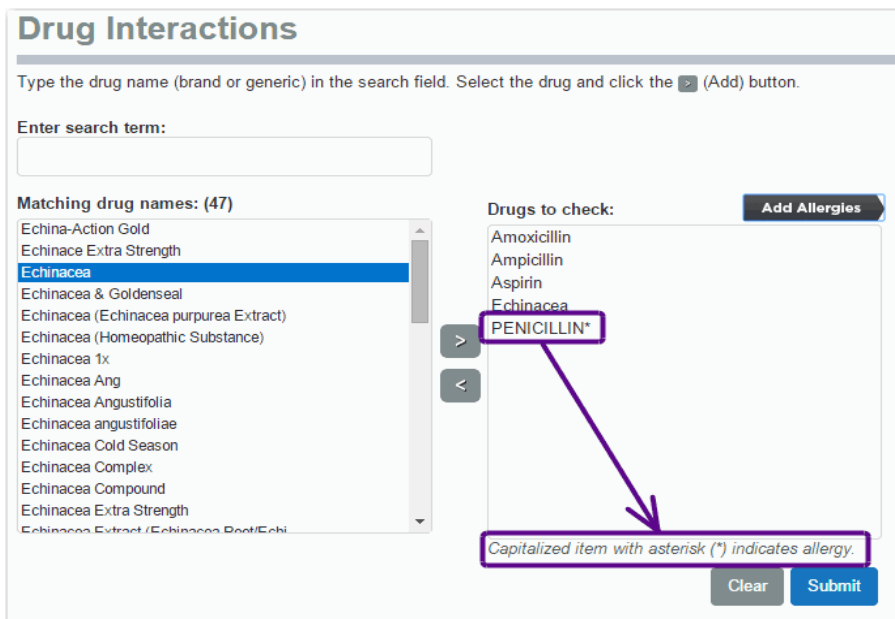
If you accidentally add a drug in the *Drugs to Check* list, select the drug by clicking it, then remove it from the list by clicking the  button.

5.  **Drug Allergies:** (Complete Drug Interactions customers only)
Patient allergies can be added to the list to screen the drugs against the allergy. Click the **Add Allergies** button to open the allergy window.



6. Type the first drug (brand or generic) in the *Enter Allergy:* field. If you are unsure of the spelling, just type as many characters as you know.

If the drug the patient is allergic to is listed in the *Matching Allergies* list, click on the item and then click the button to add the drug to the *Allergies to Addlist*.



7. Repeat this until all patient drug allergies have been added to the allergy list, then click the **UPDATE** button to return to the *Drug Interactions* page. You will notice the allergies entered appear UPPERCASE, with an asterisk (*) in the *Drugs to checklist*.

The screenshot shows the 'Drug Interactions' interface. At the top, it says 'Type the drug name (brand or generic) in the search field. Select the drug and click the [Add] (Add) button.' Below this is a search field labeled 'Enter search term:'. Underneath the search field, there are two columns. The left column is titled 'Matching drug names: (2)' and contains a list with 'Xanax' selected and 'Xanax XR' below it. The right column is titled 'Drugs to check:' and contains a list: Amoxicillin, Ampicillin, Aspirin, Echinacea, Keflex, Warfarin, Xanax, and PENICILLIN*. There are right and left arrow buttons between the two columns. At the top right of the 'Drugs to check:' list is an 'Add Allergies' button. At the bottom right are 'Clear' and 'Submit' buttons. A mouse cursor is pointing at the 'Submit' button. A note at the bottom of the 'Drugs to check:' list states: 'Capitalized item with asterisk (*) indicates allergy.'

8. When all drugs and allergies to check are in the *Drugs to check* list, click the **Submit** button.

If you want to remove all drugs from the *Drugs to Check* list and start over, click the **Clear** button.

Drug Interactions Search Results

Interaction information is displayed on the *Drug Interactions Results* page.

The screenshot shows the 'Drug Interaction Results' page with a 'Modify Interactions' button and filters for Drugs, Severity, Documentation, and Type, all set to 'All'. Below the filters are navigation links for various interaction types: DRUG-DRUG (4), Ingredient Duplication (0), ALLERGY (3), FOOD (10), ETHANOL (3), LAB (8), TOBACCO (2), PREGNANCY (7), and LACTATION (7).

Drug-Drug Interactions (4)

Drugs:	Severity:	Documentation:	Summary:
AMOXICILLIN – WARFARIN SODIUM	Major	Good	Concurrent use of AMOXICILLIN and WARFARIN may result in an increased risk of bleeding.
AMPICILLIN – WARFARIN SODIUM	Major	Good	Concurrent use of AMPICILLIN and WARFARIN may result in an increased risk of bleeding.
ASPIRIN – WARFARIN SODIUM	Major	Excellent	Concurrent use of ASPIRIN and WARFARIN may result in an increased risk of bleeding.
CEPHALEXIN – WARFARIN SODIUM	Major	Good	Concurrent use of CEPHALEXIN and WARFARIN may result in an increased risk of bleeding.

Ingredient Duplication (None found)

Drug-ALLERGY Interactions (3)

Drugs:	Severity:	Documentation:	Summary:
AMOXICILLIN – PENICILLIN	Unknown	Unknown	CROSS-REACTIVITY BETWEEN BETA-LACTAMS (CARBAPENEMS, CEPHALOSPORINS, CLAVULANIC ACID, MONOBACTAMS, PENICILLINS, ...)

Interactions Results

Jump To: DRUG-DRUG (4) | Ingredient Duplication (0) | ALLERGY (3) | FOOD (10) | ETHANOL (3) | LAB (8) | TOBACCO (2) | PREGNANCY (7) | LACTATION (7)

Interactions are grouped by interaction type. Within each interaction type, interactions are shown ranked by severity. Any interaction marked *Contraindicated* is displayed first, followed by *Major*, *Moderate*, and *Minor*. See [“Severities” on page 171](#) for the complete list of severities.

The level of the supporting documentation (Excellent, Good, Fair, etc.) behind the interaction is also shown for each interaction listed. See [“Documentation Ratings” on page 172](#).

The summary column displays brief, high-level interaction information.

Severities

Interaction severities are indicated by an icon and one word definition. A complete legend of all severities is shown at the bottom of the page. Hovering over the icon in the legend opens a pop-up window with the full definition. The full definitions follow:

- **Contraindicated** - the drugs are contraindicated for concurrent use
- **Major** - the interaction may be life-threatening and/or require medical intervention to minimize or prevent serious adverse effects
- **Moderate** - the interaction may result in an exacerbation of the patient’s condition and/or require an alteration in therapy

- **M** **Minor** - the interaction would have limited clinical effects. Manifestations may include an increase in the frequency or severity of side effects but generally would not require a major alteration in therapy.
- **?** **Unknown** - unknown

Documentation Ratings

The level of documentation available for the interaction is also shown. A complete legend of all documentation ratings is shown at the bottom of the page. Hovering over the rating in the legend opens a pop-up with the full definition. The ratings and their definitions follow:

- *Excellent* - controlled studies have clearly established the existence of the interaction
- *Good* - documentation strongly suggests the interactions exists, but well-controlled studies are lacking
- *Fair* - available documentation is poor, but pharmacologic considerations lead clinicians to suspect the interaction exists; or, documentation is good for a pharmacologically similar drug
- *Unknown* - unknown

Interaction Details

Complete Drug Interactions subscribers are able to view additional interaction information by clicking the link on the drug name to open interactions details. Additional information may include: clinical management, onset, probable mechanism, literature summaries, and references for this interaction.

The screenshot shows a pop-up window titled "INTERACTION DETAIL". The content is as follows:

Warning:
Concurrent use of AMOXICILLIN and WARFARIN may result in an increased risk of bleeding.

Clinical Management:
Concomitant use of amoxicillin and warfarin should be approached with caution as this may result in increased INR and thereby increase the risk for bleeding. When possible, substitute amoxicillin for an antibiotic with a low-risk profile for bleeding. If concomitant use of amoxicillin and warfarin is required, more frequent monitoring of the patient's INR is recommended (Baillargeon et al, 2012), especially during initiation and discontinuation of the antibiotic (Prod Info COLUMADIN® oral tablets, intravenous injection powder lyophilized for solution, 2011). In addition, adjust the warfarin dose as needed to maintain the desired anticoagulation level (Prod Info AUGMENTIN XR® extended release oral tablets, 2010).

Onset:
Delayed

Severity:
Major

Documentation:

At the bottom right of the window are the controls: "PRINT" with a printer icon, "CLOSE" with an "X" icon, and a scroll bar on the right side.

Change the list of drugs to search

You can add, change, remove items from the list of drugs to search by clicking the **Modify Interactions** button. All items selected to this point are retained. When changes have been completed, click the **Submit** button to screen interactions based on the updated drug and allergy list.

Note: Information displayed on the drug interactions results page may depend on your subscription. Customers subscribing to Complete Drug Interactions will see links to additional information about the interaction that is not displayed to subscribers of Standard Drug Interactions.

Refine by

Drug Interaction Results ← Modify Interactions

Refine by: Drugs: **All** Severity: **All** Documentation: **All** Type: **All**

Jump To: **DRUG-DRUG** | ALLERGY (3) | FOOD (10) | ETHANOL (3) | LAB (8) | TOBACCO

Click on Drug names to see single Drug Interactions.
Check/uncheck to refine selected drugs.

Check all | Uncheck all

- Amoxicillin
- Ampicillin
- Aspirin
- Echinacea
- Keflex
- Warfarin
- Xanax
- PENICILLIN*

Cancel Update

Severity:	Documentation:
Major	Good
Major	Good
Major	Excellent

The drop-down lists allow you to modify the interactions results to suit your specific needs.

1. The *Drugs* drop-down allows you to remove any of the drugs previously selected from the interactions check. De-select (uncheck) any drug you wish to remove, then click the **Update** button.
2. The *Severity* drop-down allows you to filter interactions by level of severity. De-select (uncheck) any severity you wish to remove, then click the **Update** button.
3. By default, all *Documentation* types (Excellent, Good, Fair, and Unknown) are included and shown in the results. To filter by level of documentation de-select (uncheck) any level you wish to remove, then click the **Update** button.
4. The *Type* drop-down allows you to filter for specific interaction types only. De-select (uncheck) any interaction type you wish to remove, then click the **Update** button.

Jump To

Interactions are shown grouped by interaction type. Drug-drug interactions are shown first on the page, followed by ingredient duplication, allergy, food, ethanol, lab, tobacco, pregnancy and lactation.

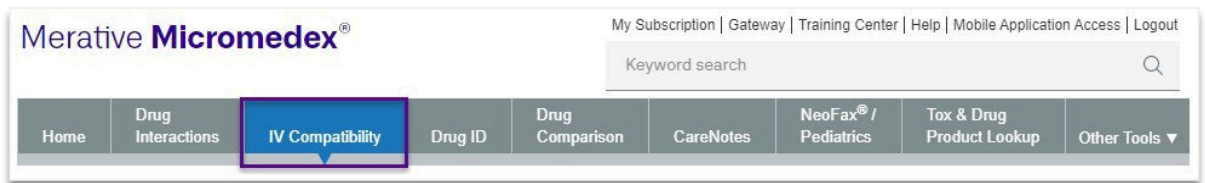
Jump To: **DRUG-DRUG (4)** | Ingredient Duplication (0) | **ALLERGY (3)** | **FOOD (10)** | **ETHANOL (3)** | **LAB (8)** | **TOBACCO (2)** | **PREG**

The **Jump To** links show at a glance how many interactions of each type exist, and allow you to go quickly to a particular type. Click the link to go immediately to the first entry in the interaction type.

CHAPTER 12: IV COMPATIBILITY TOOL

Use the Trissel's™ 2 IV Compatibility tool to avoid potentially dangerous drug combinations. When multiple IV medications are combined, the risk of complication is very real. Efficacy of one or more drugs can be reduced or a potentially dangerous incompatibility can occur.

The IV Compatibility Tool provides easy access to Parenteral Compatibility with proven data to support safe decisions for administering injectable drugs in combination. Using information from leading IV compatibility expert, Lawrence Trissel, MS, FASHP, IV Compatibility in Micromedex® presents compatibility results for parenteral drug combinations.



Features

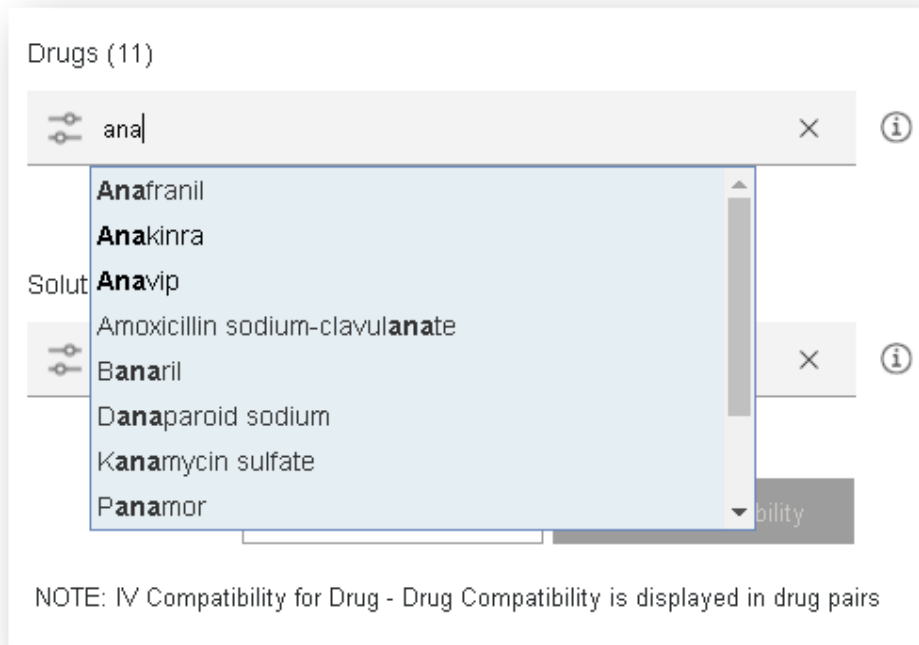
The IV Compatibility tool offers compatibility information for drugs:

- Drug in solution
- Combined via Y-Site
- Combined via Admixture
- Combined via Syringe
- Combined with TPN/TNA solutions

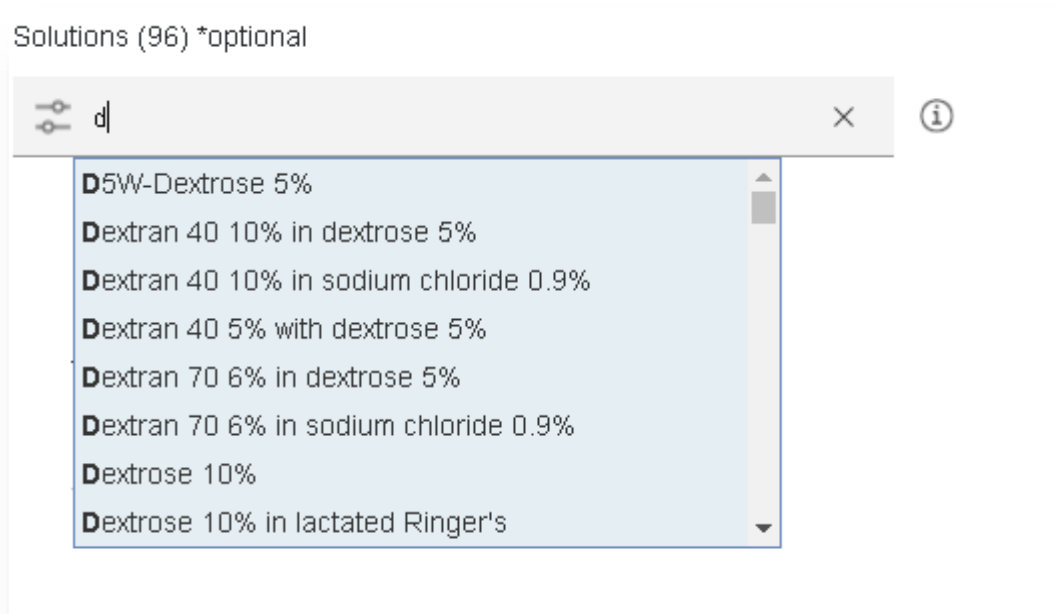
In addition to viewing the compatibility information for drugs, IV Compatibility tool also allows the user to search for drugs along with the solutions.

Building an IV Compatibility Search

1. Type at least the first three letters of your search related to drug (brand or generic) in the **Drugs** field.



- 2 Type at least the first letter of the solution to be tested with the selected drug in the **Solutions* Optional** field. The tool will not allow a user to search using a solution alone. As you type, the word wheel begins to narrow your search results based on the characters you have entered. The more characters you type, the more focused the results. The number of matches to the solution name is also updated as you type.



Drug – Drug IV Compatibility Search

- 3 Once you see the name of the drug for which you are searching in the drop down to do one of the following to add the drug to the *Drugs* field to begin the compatibility search using drugs.
 - Single-click on the drug - or -
 - Use the **PgUp** and **PgDn** arrow keys in your keyboard to select the required drug and press the **Enter** key to select it.
- 4 If you are looking for compatibility information for a single drug, then click the **View Compatibility** button. However, if more than one drug should be screened, repeat the steps 1, 3 until you have selected all the drugs you wish to check for compatibility in the *Drugs* field.
- 5 When all drugs to screen are in *Drugs* field, click the **View Compatibility** button.
 - If you want to remove all selected drugs and start over,
 - Click the **Clear All** button - or -
 - Click the “X” symbol seen right to the drug name to remove a single drug.

Drugs (1634)

🔍 Select Drug(s) to view Drug-Drug IV Compatibility ✕ (i)

Anakinra ✕

Cefazolin sodium ✕

Solutions (130) *optional

🔍 Select Solution(s) to view Drug-Solution IV Compatibility ✕ (i)

Clear All

View Compatibility

NOTE: IV Compatibility for Drug - Drug Compatibility is displayed in drug pairs

Drug – Solution IV Compatibility Search

- 6 Repeat the steps 1, 3 and 4 to search the name of the drugs in the Drugs field.
- 7 Type the name of the solution for which you are searching in the **Solutions *optional** field, perform any one of the following actions to begin compatibility search using drug and solution.
 - Single-click the solution - or -
 - Use the **PgUp** and **PgDn** arrow keys in your keyboard to select the required solution and press the **Enter** key to select it.
- 8 When you have selected all the solutions, click the **View Compatibility** button.
- 9 If you want to remove all selected drugs and start over,
 - Click the **Clear All** button - or -
 - Click the “**X**” symbol seen right to the solution name to remove a single solution.

Drugs (1634)

Select Drug(s) to view Drug-Drug IV Compatibility

Anakinra × Cefazolin sodium × Furosemide × Heparin sodium ×

Solutions (130) *optional

Select Solution(s) to view Drug-Solution IV Compatibility

Dextran 40 10% in sodium chloride 0.9% ×

Clear All View Compatibility

NOTE: IV Compatibility for Drug - Drug Compatibility is displayed in drug pairs

Compatibility Search Results

Compatibility results for Drug Solution, Y-Site, Admixture, and Syringe are separated onto different tabs, so that you can quickly access the method in which you are interested.

← Modify Selections

Key : ✔ ⊘ ⚠ ? - Print

Drug-Solution

Drug-Drug: Y-Site

Drug-Drug: Admixture

Drug-Drug: Syringe

Compatibility:
All

Y-Site Results Summary	Status
Anakinra - Cefazolin sodium	? Uncertain
Anakinra - Furosemide	- Not Tested
Anakinra - Heparin sodium	- Not Tested
Cefazolin sodium - Furosemide	✔ Compatible
Cefazolin sodium - Heparin sodium	✔ Compatible
Furosemide - Heparin sodium	✔ Compatible

Micromedex Assistant ↻

Feedback

Compatibility is denoted by an icon and simple description.

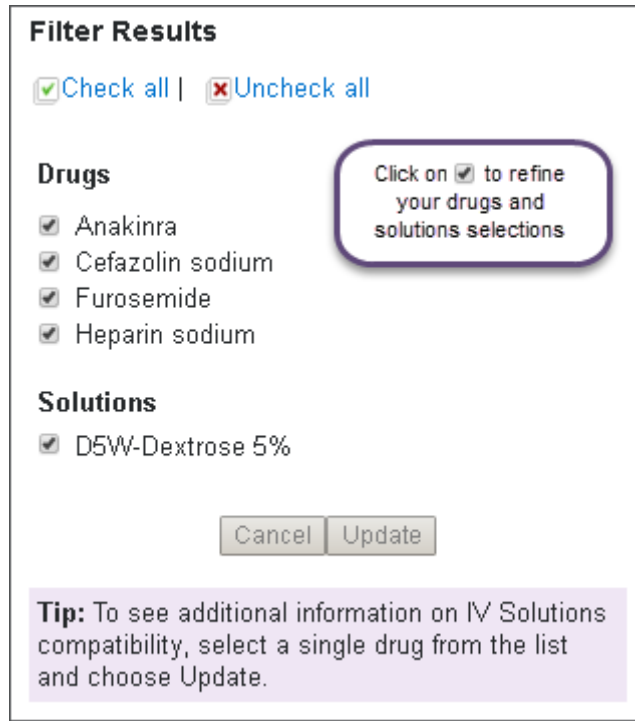
- ✔ *Compatible* - All results determined these items are compatible
- ⚠ *Caution: Variable* - Study results show the compatibility of the pair is variable
- ⊘ *Incompatible* - All studies determined these items are incompatible
- ? *Uncertain* - Study results were inconclusive, compatibility was not determined
- - *Not Tested* - Compatibility has not been tested

Note: By default, *all Compatibilities* are displayed.

Modify the Drugs and solutions to Include

Remove one or more drugs from the drugs selected for inclusion in the compatibility results.

The drugs included are displayed on the left side of the page. To remove a drug, click the checkbox and then click the **Update** button to update compatibility results for the drugs in the list. To remove the selected solutions, you can perform the same actions as similar to drug removal.



Filter Results

Check all | Uncheck all

Drugs

- Anakinra
- Cefazolin sodium
- Furosemide
- Heparin sodium

Solutions

- D5W-Dextrose 5%

Cancel Update

Tip: To see additional information on IV Solutions compatibility, select a single drug from the list and choose Update.

Tip: To view TPN/TNA Compatibility for a single drug, click the check box to remove the drugs and solutions selections until there is one drug on the



list and then click on **Update**


The *Compatibility*: drop-down shows all compatibilities selected by default. Remove any compatibility indicator by de-selecting it and clicking the **Update** button.

Modify Drug Selections

To add drugs to a compatibility profile, or to start over from the beginning, click the **Modify Selections** button. You will return to the initial page with the current selections shown below the Drugs and Solutions *optional fields.

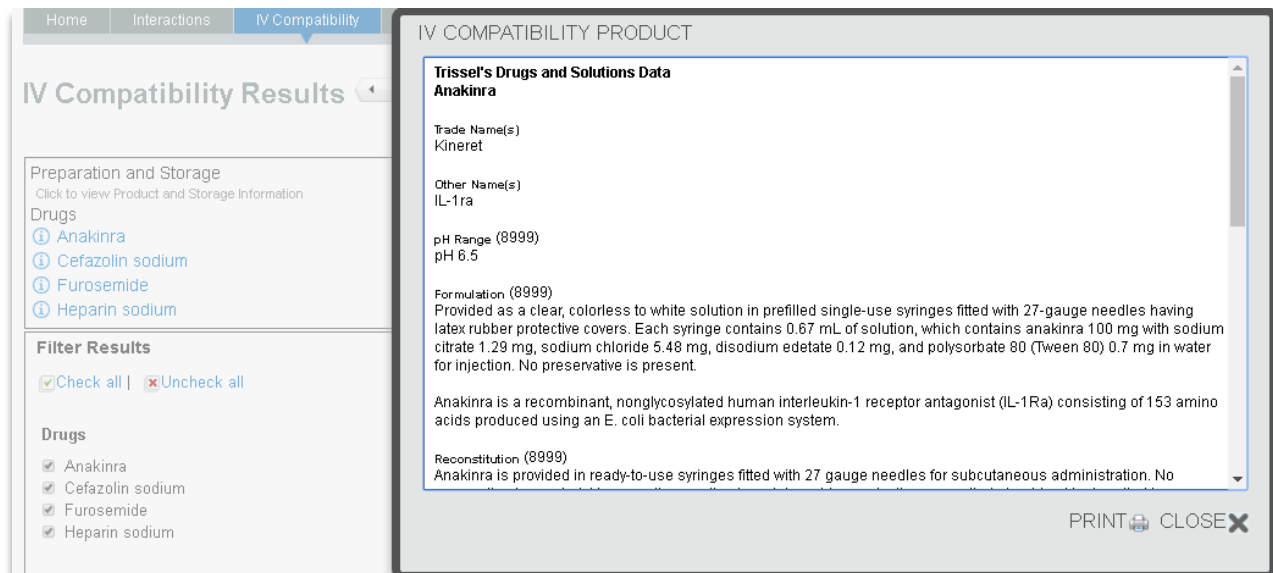
Preparation and Storage - View Drugs and Solutions Data

Parenteral drugs and solutions are administered by injection, most of ten intravenously, but also commonly by intramuscular and subcutaneous injection. To prevent adverse effects, it is important to have access to relevant characteristics of parenteral products, such as pH, compatibility and stability, and proper rate of infusion. This information is critical in making decisions related to the preparation, storage, and administration of parenteral products.

To view information related to preparation and storage of drugs click on the  icon next to the drug or click on the drug name to view "Trissel's Drugs and Solutions Data".

Information may be shown for:

- Trade Name(s)
- Other Name(s)
- pH Range
- Formulation
- Reconstitution
- Osmolality
- Storage
- Stability (Detailed, Maximum Stability, Packaged in Syringes, Crystal Formation, pH Effects, Interaction with Plastics, Central Catheters, Filtration, Freezing and Other Information)
- ...and more



The screenshot displays the IV Compatibility Tool interface. The main window is titled "IV COMPATIBILITY PRODUCT" and shows "Trissel's Drugs and Solutions Data" for "Anakinra". The data includes:

- Trade Name(s):** Kineret
- Other Name(s):** IL-1ra
- pH Range (8999):** pH 6.5
- Formulation (8999):** Provided as a clear, colorless to white solution in prefilled single-use syringes fitted with 27-gauge needles having latex rubber protective covers. Each syringe contains 0.67 mL of solution, which contains anakinra 100 mg with sodium citrate 1.29 mg, sodium chloride 5.48 mg, disodium edetate 0.12 mg, and polysorbate 80 (Tween 80) 0.7 mg in water for injection. No preservative is present.
- Reconstitution (8999):** Anakinra is provided in ready-to-use syringes fitted with 27 gauge needles for subcutaneous administration. No

The interface also shows a sidebar with "IV Compatibility Results" and a list of drugs: Anakinra, Cefazolin sodium, Furosemide, and Heparin sodium. The "Filter Results" section shows all drugs checked. The main window has "PRINT" and "CLOSE" buttons.

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For detailed information, click the link associated with the drug or solution of interest. For drugs such as Acetyl-L-carnitine hydrochloride that do not contain product information, they will be displayed as grayed out under preparation and storage information.

Drug - Solution

Drug - Solution compatibility is provided for common and other standard IV fluids

Single Drug Selection

Drug - Solution overview information for single drug compatibility searches are composed of:

- Relevant Common Solution(s) Results
- Other Solution(s) Results

Drug - Solution overview information for single drug and solution compatibility searches are composed of:

- Matching Solution(s) Results
- Relevant Solution(s) Results
- Other Solution(s) Results

Matching Solution(s) Results will display the compatibility test results of the selected drug and solution.

Relevant Common Solution(s) Results - The first table displays compatibility test results with the following standard IV fluids:

Common Solutions:

- *D5W* - Dextrose 5%
- *D10W* - Dextrose 10%
- *D5LR* - Dextrose 5% in lactated Ringers
- *D5NS* - Dextrose 5% in sodium chloride 0.9%
- *D5W - 1/2 NS* - Dextrose 5% in sodium chloride 0.45%
- *NS* - Normal saline - sodium chloride 0.9%
- *1/2 NS* - sodium chloride 0.45%
- Lactated Ringer's Injection
- Ringer's Injection

Where detailed results are available, the solution is shown as an active link. Click the solution link to view the additional information.

References for the information can be found by clicking the numbered link. Close the Compatibility Details by clicking the "Close" link.




Other Solutions can include Dextran, Dextrose, Fat emulsion, Fructose, Isolytes, Lactated Ringer's, to name a few.



Solution compatibility details are shown in a five-column table:

- **Drug 1** shows the solution name, and manufacturer's name
- **Drug 2** contains the drug name, the concentration, and the manufacturer's name
- **Status** column displays the compatibility result icon and description
- **Information** displays the physical compatibility, chemical stability (if applicable), and storage information
- **Test Parameters** contains a reference link, the study period, the study methods, and the container information for this particular combination
- **Notes** for the test (if applicable) are shown at the top of the detailed study information

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IV COMPATIBILITY DETAIL

Drug 1	Drug 2	Status	Information	Test Parameters
Furosemide 0.2mg/mL	D5W-Dextrose 5%	 Compatible	Chemical Stability:Chemically stable.About 4% furosemide loss occurred in 24 hours. Storage:Room temperature of 25 °C.	Reference: 1348 Study Period:24 hours. Method:HPLC analysis of drug concentrations. Container:Not cited.
Drug 1	Drug 2	Status	Information	Test Parameters
Furosemide 0.4mg/mL	D5W-Dextrose 5%	 Compatible	Chemical Stability:Chemically stable.About 5% furosemide loss occurred in 24 hours. Storage:Room temperature of 25 °C.	Reference: 1348 Study Period:24 hours. Method:HPLC analysis of drug concentrations. Container:Not cited.
Drug 1	Drug 2	Status	Information	Test Parameters
Furosemide 0.6mg/mL	D5W-Dextrose 5% Baxter Healthcare	 Compatible	Physical Compatibility:Physically compatible. No visible	Reference: 0315 Study Period:24 hours.

PRINT  CLOSE 

Drug -Drug: Y-Site

Results for Drug - Drug: Y-site compatibility are presented first by default.

Drug-Solution	Drug-Drug: Y-Site	Drug-Drug: Admixture	Drug-Drug: Syringe	Compatibility: All
Y-Site Results Summary				Status
Anakinra - Cefazolin sodium				Uncertain
Anakinra - Furosemide				Not Tested
Anakinra - Heparin sodium				Not Tested
Cefazolin sodium - Furosemide				Compatible
Cefazolin sodium - Heparin sodium				Compatible
Furosemide - Heparin sodium				Compatible

Click on the drug pair link to view study details.

Compatibility Details

Compatibility details for multiple drug compatibility tests are shown in a five-column table

IV COMPATIBILITY DETAIL				
Drug 1	Drug 2	Status	Information	Test Parameters
Anakinra 4mg/mL in` Normal saline- Sodium chloride 0.9% Synergen	Cefazolin sodium 15mg/mL in` Normal saline- Sodium chloride 0.9% Geneva	 Uncertain	Physical Compatibility: Physically compatible. No visible haze or particulate formation, color change, or gas evolution. Chemical Stability: Uncertain stability. Anakinra concentrations were erratic possibly due binding with the antibiotic. No loss of cefazolin sodium occurred. Storage: Ambient room temperature about 25 °C exposed to fluorescent light.	Reference: 2508 Study Period: 4 hours. Method: Visual observation and stability-indicating HPLC analyses of drug concentrations. Container: Simulated Y-site administration using glass containers.

PRINT CLOSE

- **Drug 1** - contains the drug name, the concentration, the solution used as the vehicle and the manufacturer's name
- **Drug 2** - shows the secondary drug name, concentration, the solution used as the vehicle and manufacturer's name
- **Status** - displays the compatibility result icon and description
- **Information** displays the physical compatibility, chemical stability (if applicable), and storage information

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- **Test Parameters** - contains a reference link, the study period, the study methods, and the container information for this particular combination
- **Notes** for the test (if applicable) are shown at the top of the detailed study information

Return to the *Overview* page by clicking the **CLOSE** link.

Drug -Drug: Admixture

Click the **Drug Drug Admixture** tab to view results. Overview information for multiple drug admixture compatibility is shown with the associated compatibility icon and description.

Drug-Solution	Drug-Drug: Y-Site	Drug-Drug: Admixture	Drug-Drug: Syringe	Compatibility: All
Admixture Results Summary				Status
Anakinra - Cefazolin sodium				Not Tested
Anakinra - Furosemide				Not Tested
Anakinra - Heparin sodium				Not Tested
Cefazolin sodium - Furosemide				Not Tested
Cefazolin sodium - Heparin sodium				Compatible
Furosemide - Heparin sodium				Compatible

Click the drug pair link to view study details.

IV COMPATIBILITY DETAIL				
Drug 1	Drug 2	Status	Information	Test Parameters
Cefazolin sodium 10mg/mL Manufacturer Unspecified	Heparin sodium 5000units/mL Manufacturer Unspecified	 Compatible	Physical Compatibility: Physically compatible. No visible haze, precipitation, or color change was reported. Chemical Stability: Chemically stable. Little or no increase in antibiotic loss was found compared to the antibiotic without the heparin present. Storage: Body temperature of 37 °C.	Reference: 2515 Study Period: 72 hours. Method: Visual observation, UV spectrophotometry, and HPLC analysis to confirm drug concentrations. Container: Simulated antibiotic-heparin lock in glass test tubes.
Drug 1	Drug 2	Notes: This admixed drug combination is intended for use as a lock solution.		
Cefazolin sodium 10mg/mL in Normal saline-	Heparin sodium 10units/mL in Normal saline-		Physical	Reference: 2684
		Status	Information	Test Parameters

PRINT CLOSE







Admixture compatibility details for multiple drug compatibility searches are shown in a five-column table:


- **Drug 1** contains the drug name, the concentration, and the manufacturer's name
- **Drug 2** shows the secondary drug name, concentration, and manufacturer's name
- **Status** column displays the compatibility result icon and description
- **Information** displays the physical compatibility, chemical stability (if applicable), and storage information
- **Test Parameters** contains a reference link, the study period, the study methods, and the container information for this particular combination
- **Notes** for the test (if applicable) are shown at the top of the detailed study information

Return to the *Overview* page by clicking the **CLOSE** link.


Drug -Drug: Syringe (Complete IV Compatibility customers)



Click the **Drug Drug: Syringe** tab to view results. Overview information for multiple drug syringe compatibility is shown alphabetically by drug name, with the associated compatibility icon and description.

Syringe Results Summary		Status
Anakinra - Cefazolin sodium		Not Tested
Anakinra - Furosemide		Not Tested
Anakinra - Heparin sodium		Not Tested
Cefazolin sodium - Furosemide		Not Tested
Cefazolin sodium - Heparin sodium		Compatible
Furosemide - Heparin sodium		Compatible



Click the drug pair link to view study details.

IV COMPATIBILITY DETAIL				
Drug 1	Drug 2	Notes: This drug combination was used as an antibiotic-lock solution for venous ports.		
Cefazolin sodium 0.5mg/mL in Sterile water for injection Eli Lilly and Co.	Heparin sodium 50units/mL in Normal saline- Sodium chloride 0.9% Manufacturer Unspecified	Status  Compatible	Information Physical Compatibility: Physically compatible. No visible haze or particulate formation, color change, or gas evolution. Chemical Stability: Chemically stable. About 10% loss of antibiotic activity within 10 days at both temperatures. Heparin activity was not assessed. Storage: Room temperature of 25 °C and body temperature of 37 °C	Test Parameters Reference: 9223 Study Period: 10 days. Method: Visual observation and microbiological assessment of antibiotic activity. Container: Tested in vitro in polystyrene test tubes.

PRINT  CLOSE 

Syringe compatibility details for multiple drug compatibility searches are shown in a five-column table:

- **Drug 1** contains the drug name, the concentration, the solution used as a diluent, and the manufacturer's name
- **Drug 2** shows the secondary drug name, concentration, the solution used as a diluent, and manufacturer's name
- **Status** column displays the compatibility result icon and description
- **Information** displays the physical compatibility, chemical stability (if applicable), and storage information
- **Test Parameters** contains a reference link, the study period, the study methods, and the container information for this particular combination
- **Notes** for the test (if applicable) are shown at the top of the detailed study information

Single Drug IV Compatibility

TPN/TNA compatibility are only available when a single drug is selected for consideration. This can be accomplished by building an IV Compatibility profile for one drug, or by de-selecting all but one drug from a compatibility results screen and clicking the **Update** button.

Filter Results

Check all | Uncheck all

Drugs

- Anakinra
- Cefazolin sodium
- Furosemide
- Heparin sodium

Click on to refine your drugs selections

Cancel Update

Tip: To see additional information on TPN/TNA compatibility, select a single drug from the list and choose Update.

Filter Results

Check all | Uncheck all

Drugs

- Anakinra
- Cefazolin sodium
- Furosemide
- Heparin sodium

Cancel Update

Tip: To see additional information on IV Solutions compatibility, select a single drug from the list and choose Update.

TPN/TNA Overview

IV Compatibility Results Modify Selections

Preparation and Storage
Click to view Product and Storage Information

Drugs
Cefazolin sodium

Filter Results
Check all | Uncheck all
Drugs
Cefazolin sodium
Cancel Update

Drug-Solution	Y-Site	Admixture	Syringe	TPN/TNA	Compatibility
1 mg/mL				TPN (2-in-1) Results Summary	Compatible Solution
1 mg/mL				TPN (2-in-1) Results Summary	Compatible Solution

Notes:
One neonatal TPN admixture was used in this testing having the following composition per liter:
Amino acids 1.5% (Baxter)
Dextrose 15%
Unspecified electrolytes and vitamins

Notes:
One simple TPN admixture was used in this testing having the following composition per liter:
FreAmine II 4.25%
Dextrose 25%

Click on view Trissels's Drugs and Solutions Data for pH, compatibility, stability and proper rate of infusion etc.

Overview information for single drug TPN (2-in-1) (total parenteral nutrition) is shown, followed by TNA (3-in-1) (total nutrient admixture) compatibility.


Note: TPN and TNA results are not result type specific. They can be a Y-Site, solution, or admixture result. Results are composed of all compatibility tests where the drug name searched is being included with a TPN or TNA solution.

Within each TPN/TNA grouping, the results are sorted alphabetically by TPN or TNA admixture name, with the associated compatibility icon and description, followed by high level notes, including composition of the TPN/TNA, on these tests.

Click the drug concentration link to view the details of these tests.



TPN/TNA Details

IV COMPATIBILITY DETAIL

<p>2in1Travasol</p> <div style="text-align: center; margin-top: 10px;">  Compatible Solution </div> <p>Notes: One neonatal TPN admixture was used in this testing having the following composition per liter: Amino acids 1.5% (Baxter) Dextrose 15% Unspecified electrolytes and vitamins</p>	<p>Cefazolin sodium</p> <p>1 mg/mL</p> <p>Manufacturer Unspecified</p>	<p>Physical Compatibility:Not reported.</p> <p>Chemical Stability:Stable. About 9% loss of cefazolin activity occurred in 24 hours.</p> <p>Storage:Room temperature of 20 to 22 °C</p>	<p>Reference: 1326</p> <p>Study Period:24 hours.</p> <p>Method:Microbiological assay of antibiotic activity.</p> <p>Container:Not specified.</p>
--	---	---	--

Powered by Trissel's™ 2 Clinical Pharmaceutics Database (Parenteral Compatibility).

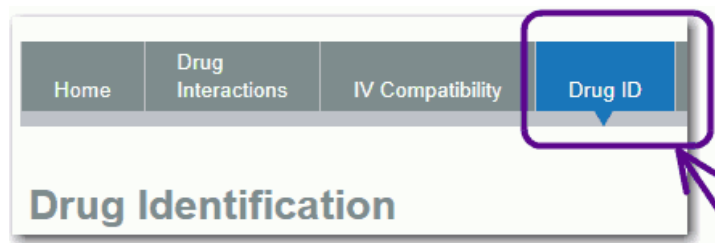
IV Index contains the Confidential Information of BAXTER HEALTHCARE CORPORATION. Use of IV Index or information which it contains by anyone other than an expressed licensee is strictly prohibited.

PRINT  CLOSE 

CHAPTER 13: DRUG ID TOOL

IDENTIFY DRUGS BY IMPRINT OR PHYSICAL CHARACTERISTICS

The Drug ID tool can assist you in identifying pharmaceutical tablets, caplets, and capsules by any of their physical characteristics such as shape, color, pattern, or imprint code.



Micromedex® for Poison Centers customers can display additional information in the search results, including:

- Excipients
- Regulatory Status
- AAPCC Code
- Availability
- Product ID
- Contact Information

Micromedex for Poison Centers customers can also open the toxicologic management for the substance from search results. When an overdose or toxic ingestion or exposure is suspected, this can close the information loop from identification to management.

Micromedex returns a full-color image of the drug whenever possible, with a link to detailed product information.

Poison Center users can find additional information in ["Appendix D: Poison Center Integration" on page 346](#).

Create Your Search

Search by Imprint Code

Type imprint codes in the Side 1 and Side 2 fields. Side order (Side 1 or Side 2) does not matter. A search for Side 1 = 1025 and Side 2 = 93 produces the same match as Side 1 = 93 and Side 2 = 1025.

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Both Side 1 and Side 2 are not required. Search on only one imprint code if you are not able to read the second imprint.

Drug Identification

Search: by Imprint Code | [No Imprint Code? Click here to search by Description ▶](#)

Side 1: Partial Imprint

Side 2: Partial Imprint

Partial Imprint

There may be times or conditions when you are not sure of the entire imprint code. When this is the case, click the *Partial Imprint* checkbox to perform the search looking for the characters entered anywhere in the imprint code.

Using the example of Side 1 =mrk and Side 2 = 71 (with the *Partial Imprint* checkbox selected) will find the imprint 71 anywhere in the imprint code; in this case three matches found: MRK 711, MRK 717, and Mrk 717.

Drug Identification

Search: by Imprint Code | [No Imprint Code? Click here to search by Description ▶](#)

Side 1: Partial Imprint

Side 2: Partial Imprint

Drug Identification Results [← Modify Identification](#) [Search Images ▶](#)

3 Matches for: "mrk, 71" Sort all Results by: **Imprint** ▼

3 Drug Matches for 'M' 1 - 3 (of 3 matching drugs) ◀ First ◀ Previous | Next ▶ Last ▶▶

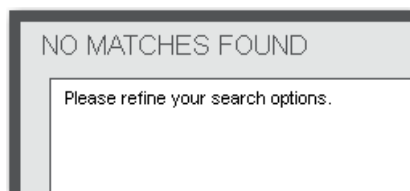
Display: [ALL](#) | 0-9 | [A](#) | [B](#) | [C](#) | [D](#) | [E](#) | [F](#) | [G](#) | [H](#) | [I](#) | [J](#) | [K](#) | [L](#) | **M** | [N](#) | [O](#) | [P](#) | [Q](#) | [R](#) | [S](#) | [T](#) | [U](#) | [V](#) | [W](#) | [X](#) | [Y](#) | [Z](#)

Imprint ▼	Drug Name	Manufacturer	Availability	AAPCC	Poisindex Managements
MRK 711 Singulair	Singulair	Merck Sharp & Dohme	United States	201078	MONTELUKAST
MRK 717 HYZAAR	Hyzaar 50-12.5	Merck Sharp & Dohme	United States	077773	ANGIOTENSIN II ANTAGONISTS DIURETICS
Mrk; 717	Hyzaar	Merck Frosst	Canada	201079	ANGIOTENSIN II ANTAGONISTS DIURETICS

[Feedback](#)

Without the *Partial Imprint* checkbox selected, the default Drug ID search looks for *exactly* what is entered as the search term. This means *all* terms and conditions must match to be considered a match. This executes like the Boolean 'AND' search operator.

Using the same example: Side 1 = MRK and Side 2 = 71, but without the *Partial Imprint* checkbox selected, results in "*No Matches Found*", as there are no drugs with the imprint of MRK AND 71.



If only one side is legible, you can search using a single imprint code. For example, you could search on Side 1 = 71. This search finds all drugs with 71 as an imprint, which may produce a large list of matches.

Logos and Pictures

If the drug has something other than letters or numbers, you can search on the term 'logo'. The example shown here could be found by searching Side 1 = 100 and Side 2 = logo.



Imprint Code Search Results

Search Results Page

All matches found for your search criteria are shown in a search results table. Links to additional information on: drug information, Manufacturer, Availability, and POISINDEX Managements are available.

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Searching by Imprint will not display any pictures in the search results table. Images may be available on the Drug Info page (see [“Viewing Drug Information” on page 197](#)). If you need to view a picture of the substance to match it to the pill in question, it may be available by searching the Images database. Click the **Search Images** button to search using the same search terms and parameters in the Images database.

Note: Not all substances found through an imprint search will have a corresponding image/picture in the Images database.

If you wish to create a new search, click the **Modify Identification** button to return to the search page.

The screenshot shows the 'Drug Identification Results' page for the search term 'mrk'. The page displays 25 matches for 'mrk' and 23 drug matches for 'M'. The results are sorted by Imprint. Callouts provide the following information:

- Speed menu:** Click the linked letter (or 0-9) to jump to that position in the list of results.
- Sort all Results by:** Imprint
- Hyperlinked heading:** Click any hyperlinked heading to sort by that column.
- Sort Results:** The up/down triangles (and Sort Results by drop-down) show which column is currently selected for sort.
- Toggle Sort:** Toggle between ascending and descending sorts by clicking the underlined heading.
- Images:** Images are not shown on the search results page when searching by imprint code.
- Drug Name:** Click the drug name link to view additional information and the image (if available) for the selected drug.
- POISINDEX®:** Click a title to view a POISINDEX® Management document via a landing page.

Imprint	Drug Name	Manufacturer	Availability	AAPCC	Poisindex Managements
MRK 266	Maxalt	Merck Sharp & Dohme	United States	077920	SUMATRIPTAN AND RELATED AGENTS SEROTONIN SYNDROME
MRK 117 Singular	Singular	Merck Sharp & Dohme	United States	201078	MONTELUKAST
MRK 267 MAXALT	Maxalt	Merck Sharp & Dohme	United States	077920	SUMATRIPTAN AND RELATED AGENTS SEROTONIN SYNDROME
MRK 711 Singular	Singular	Merck Sharp & Dohme	United States	201078	MONTELUKAST
Hyzaar 50-12.5		Merck Sharp & Dohme	United States	077773	ANGIOTENSIN II RECEPTOR ANTAGONISTS

The results page opens positioned to results that most closely match your term(s). The number of drugs found for that letter (or number 0-9) is shown. You can view imprints matched that begin with other letters by clicking the speed menu letter (or number 0-9). Any letter shown with bold text denotes that a match to that letter was found for the search term.

Search results display sorted alphabetically by the imprint code. The sort order is an alphabetical ascending sort (0-9, A-Z). You can reverse the sort order by clicking on the blue arrow. When the sort order is changed, the direction of the arrow changes.

If more than one page of matches is found, move through the pages using the **<<First, <Previous | Next> and Last>>** navigation buttons.

Sort All Results by

You can sort the search results by the Imprint Code, Drug Name, Manufacturer or Availability. Click the *Sort all Results by:* drop-down and select from the list.

Viewing Drug Information

Click a drug name link to open the *Drug Information* page for the substance.

The screenshot shows a search interface with a purple header indicating "25 Matches for: 'mrk'". Below this, a table lists 23 drug matches for 'M'. The table has columns for Imprint, Drug Name, Manufacturer, and Availability. The first row shows "MRK 266" with a link to "Maxalt". A red box highlights the "Maxalt" link, and a red arrow points from it to a "DRUG INFORMATION" pop-up window.

25 Matches for: "mrk"

23 Drug Matches for 'M' 1 - 23 (of 23 matches)

Display: ALL | 0-9 | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q

Imprint ▼	Drug Name	Manufacturer	Availability
MRK 266	Maxalt	Merck Sharp & Dohme	United States
MRK 117	Singulair	Merck Sharp & Dohme	United States
MRK 266			

DRUG INFORMATION

Tox & Drug: [Maxalt](#) ▶
Martindale: [Maxalt](#) ▶

DRUG NAME: MAXALT

INGREDIENTS: RIZATRIPTAN BENZOATE -- 5 MG

RELATED DOCUMENTS: [POISINDEX® MANAGERMENTS - SUMATRIPTAN AND RELATED AGENTS](#)
[POISINDEX® MANAGERMENTS - SEROTONIN SYNDROME](#)
[DRUGDEX® EVALUATIONS - RIZATRIPTAN](#)

COLOR: PALE PINK **NDC:** 00006-0266-12
00006-0266-06
00006-0266

SHAPE: CAPSULE-SHAPE

IMPRINT: MRK THE TABLET IS CODED WITH MRK ON ONE SIDE AND 266 ON THE OTHER SIDE. , 266

FORM: COMPRESSED ORAL TABLET

EXCIPIENTS: CELLULOSE, MICROCRYSTALLINE ; FERRIC OXIDE, RED ; LACTOSE (MONOHYDRATE) ; MAGNESIUM STEARATE ; STARCH, PREGELATINIZED

AVAILABLE-CONTAINER-SIZE: BOX OF 12, BOX OF 6, BOTTLE OF 500

REGULATORY STATUS: RX

AAPCC CODE: 077920 - OTHER TYPES OF MISCELLANEOUS PRESCRIPTION OR OVER THE COUNTER DRUG

AVAILABILITY: UNITED STATES

PRODUCT ID: 5700376

CONTACT: MERCK SHARP & DOHME

PRINT CLOSE

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The following information may be displayed on the *Drug Information* page:

- Drug Name
- Ingredients
- Related POISINDEX Management
- Color
- Shape
- Imprint
- Route
- Form
- Available Container Size(Packaging information)
- AAPCC Code
- NDC Code
- Excipients
- Regulatory Status
- Availability
- Product ID
- Contact (Manufacturer) Information

You can go directly to the *Tox & Drug Product Lookup Tool* (see [“Tox & Drug Product Lookup Tool” on page 234](#)) for the selected drug by clicking the link located near the top (right) of the window.

The screenshot shows a web interface titled "DRUG INFORMATION" for the drug Maxalt. At the top right, there is a callout box with the text: "Click these links to go to the Tox & Drug Product Lookup Tool". Below this, the page lists various details:

- DRUG NAME:** MAXALT
- INGREDIENTS:** RIZATRIPTAN BENZOATE -- 5 MG
- RELATED DOCUMENTS:** POISINDEX® MANAGERMENTS - SUMATRIPTAN AND RELATED AGENTS, POISINDEX® MANAGERMENTS - SEROTONIN SYNDROME, DRUGDEX® EVALUATIONS - RIZATRIPTAN
- COLOR:** PALE PINK
- SHAPE:** CAPSULE-SHAPE
- IMPRINT:** MRK THE TABLET IS CODED WITH MRK ON ONE SIDE AND 266 ON THE OTHER SIDE
- NDC:** 00006-0266-12, 00006-0266-06, 00006-0266
- EXCIPIENTS:** CELLULOSE, MICROCRYSTALLINE CELLULOSE, PVP, DIBASOLONE, POLYETHYLENE GLYCOL, HYDROXYMETHYLCELLULOSE, SODIUM LAURYL SULFATE, SODIUM BENZOATE, SODIUM HYDROGEN PHOSPHATE, SODIUM DIHYDROGEN PHOSPHATE, SODIUM PHOSPHATE, SODIUM CHLORIDE, SODIUM CITRATE, SODIUM ACETATE, SODIUM BENZOATE, SODIUM HYDROGEN PHOSPHATE, SODIUM DIHYDROGEN PHOSPHATE, SODIUM PHOSPHATE, SODIUM CHLORIDE, SODIUM CITRATE, SODIUM ACETATE
- PRODUCT ID:** 5700376
- CONTACT:** MERCK SHARP & DOHME

At the bottom of the page, there is an image of two pink, oval-shaped tablets. One tablet is marked with "266" and the other with "MRK". Below the image are "PRINT" and "CLOSE" buttons.

If an image of the pill is available, it is shown at the bottom of the *Drug Information* page.

You can also link to drug and toxicology landing pages (see [“Landing Pages” on page 40](#)).

The screenshot shows the 'DRUG INFORMATION' section for Maxalt. Key details include:

- DRUG NAME:** MAXALT
- INGREDIENTS:** RIZATRIPTAN BENZOATE - 5 MG
- RELATED DOCUMENTS:** POISINDEX® MANAGERMENTS - SUMATRIPTAN AND RELATED AGENTS
- EXCIPIENTS:** CELLULOSE, MICROCRYSTALLINE LACTULOSE

 Two callout boxes are present: one for 'Rizatriptan Benzoate' and another for 'Sumatriptan And Related Agents'. Below these are two detailed views:

- Rizatriptan Benzoate:** Shows drug classes (Antimigraine, Autonomic), routes (Oral), and dosing/administration options (Adult, Pediatric, FDA Uses).
- Sumatriptan And Related Agents:** Shows 'In-Depth Answers' with an overview of life support and clinical effects.

Print the information or close the page using the links on the bottom right side of the page.

Drug ID by Description - No Imprint Code Available

The screenshot shows the 'Drug Identification' form. A callout box highlights the link: 'No Imprint Code? Click here to search by Description'. The form includes input fields for 'Side 1' and 'Side 2', checkboxes for 'Partial Imprint', and 'Clear' and 'Search' buttons.

There may be times when no imprint code is available or legible. Click the **No Imprint Code? Click here to search by Description** link to open selection criteria for searching by the physical characteristics of the drug.

Drug Identification

Search: by Description [Click here to search by Imprint Code](#) ▶

Black Blue Brown Clear

Gold Gray Green Off-White

Orange Pink Purple Red

Tan White Yellow

Shape: ▼

Pattern: ▼

Show Images with results

Type or select the known physical characteristics and then click the *Search* button to begin the search for matches to your criteria. Searches on this page execute using the Boolean 'OR' operator.

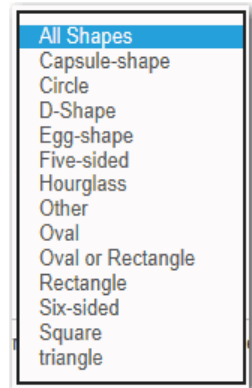
Description

Color

Select from the checkboxes to narrow results to specific colors and color combinations.

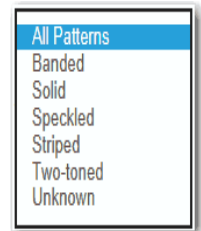
Shape

The default selection is to look for substances of all shapes, but you can select a specific shape from any of the shapes shown in the drop-down list.



Pattern

The default selection looks for all patterns, but you can select a specific pattern from any shown in the drop-down list.



If you do not wish to see the full-color images with your results, remove the checkbox selection from *Show Images with Results*.



Tip: Searching by physical characteristics (by Description) uses the Boolean 'OR' operator. This means that a substance that matches *any* checkbox will be considered a match.

To illustrate this, a search selecting Color = Pink; Color = Red, means the search would look for any items that were:

Color = Pink; OR
Color = Red; OR
Color = Pink and Red



Tip: There may be occasions where a match cannot be found in the Images database, but exists in the Imprints database. If an imprint can be used, return to the imprint search by clicking the *Click here to search by Imprint Code* link.

If you have typed the wrong information or selected parameters in error and wish to begin again, click the **Clear** button to remove all selections and characteristics and start over.

Search Results When Searching by Description

There is no Manufacturer, Availability, or AAPCC information available when searching using descriptive criteria (shape, color, pattern, etc.). If this type of information is what you need, you may be able to find it by performing a search strictly on the imprint code (no description criteria). See [“Imprint Code Search Results” on page 195](#) for more information.

If you wish to create a new search, click the **Modify Identification** button to return to the search page.

The total number of matches found for your search term is shown just above the speed menu on the left side of the page. Your search term(s) and all search criteria are displayed.

The results page opens positioned to the first results (numeric or alphabetic). For example, a search for “Square, Orange, Yellow” opens at the beginning of the “0-9” imprints. You can view imprints matched that begin with other letters by using the speed menu. Any letter shown with bold text denotes that a match to that letter was found for the search term. View all results by clicking the **ALL** link.

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Search results display sorted alphabetically by the imprint code. The sort order is an alphabetical ascending sort (0-9, A-Z). You can reverse the sort order by clicking on the blue arrow. When the sort order is changed, the direction of the arrow changes.

The screenshot shows the 'Drug Identification Results' interface. At the top, it says '25 Matches for: "Square, All Patterns, Yellow, Orange"' and 'Sort all Results by: Imprint'. Below this, it shows '3 Drug Matches for '0-9'' and '1 - 3 (of 3 matching drugs)'. A navigation bar includes 'Display: ALL | 0-9 | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z'. A 'Hide Images' link is present. The results table has columns for 'Image (US)', 'Imprint', and 'Drug Name'. The first row shows an image of two tablets, imprint '100 100 100 MJ 796', and drug name 'Desyrel Dividose'. The second and third rows show '22 in raised H' and 'Hygroton'. Callouts provide instructions: one points to the 'Imprint' and 'Drug Name' headings, another points to the 'X' in the speed menu, and a third explains the sorting process.

Drug Identification Results [Modify Identification](#)

25 Matches for: "Square, All Patterns, Yellow, Orange" Sort all Results by: Imprint

3 Drug Matches for '0-9' 1 - 3 (of 3 matching drugs) <<First <Previous | Next> Last>>

Display: ALL | 0-9 | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z

Hide Images

Image (US)	Imprint	Drug Name
	100 100 100 MJ 796	Desyrel Dividose
	22 in raised H	Hygroton
	22 in raised H	Hygroton

Speed menu: Click the linked letter (or 0-9) to jump to that position in the list of results

Click either the Imprint or the Drug Name heading to sort by that column.

The up/down triangles and 'Sort all Results by' drop-down show which column is currently selected for sort.

Toggle between ascending and descending sorts by clicking the heading link again.

If more than one page of matches is found, move through the pages using the <<First, <Previous | Next> and Last>> navigation buttons.

Sort All Results by

When results are found in the images data, you can sort results by the Imprint Code or the Drug Name. Click the **Sort all Results by:** drop-down and select from the list.

Click the drug name link to view the details and open the *Drug Information* page for this substance.

DRUG INFORMATION

Tox & Drug: [Bontril Slow-Release](#) ▶
 Martindale: [Bontril Slow-Release](#) ▶

DRUG NAME: [BONTRIL SLOW-RELEASE](#)

INGREDIENTS: [PHENDIMETRAZINE TARTRATE -- 105 MG](#)

RELATED DOCUMENTS: [POISINDEX® MANAGERMENTS - AMPHETAMINES AND RELATED DRUGS](#)
[DRUGDEX® EVALUATIONS - PHENDIMETRAZINE](#)

COLOR: GREEN AND YELLOW	NDC: 65234-0047-10
IMPRINT: A; 047	EXCIPIENTS: FD&C YELLOW NO. 6
FORM: EXTENDED-RELEASE CAPSULE	REGULATORY STATUS: SCHEDULE III
AVAILABLE-CONTAINER-SIZE: BOTTLE OF 100	AVAILABILITY: UNITED STATES
AAPCC CODE: 001000 - AMPHETAMINES AND RELATED COMPOUNDS	PRODUCT ID: 3035684
	CONTACT: AMARIN PHARMACEUTICALS

PRINT CLOSE

The following information may be displayed in the *Drug Information* page:

- Color
- Shape
- Imprint
- Route
- Form
- NDC Code(s)

You can link to the same information from this Drug Information page as when reaching this page from an imprint search. For more information see [“Viewing Drug Information” on page 197](#).

CHAPTER 14: DRUG COMPARISON TOOL

The number of drugs available today is enormous, and the vast amount of information about these drugs can be mind boggling. Use the **Drug Comparison** tool to harness this information and give you easy access to side-by-side drug information.



Reviewed by experts, Micromedex® drug information is evidence-based, covers FDA- approved prescription and nonprescription drugs. Areas discussed include dosing, indications, availability (prescription or over-the-counter), black box warnings, pharmacokinetics, cautions, interactions, clinical applications, adverse effects, and comparative efficacy.

View and compare drugs side-by-side with the **Drug Comparison** feature. Compare attributes such as: dosing, administration, indications, contraindications, precautions, adverse effects, and interactions to assist you in making the most informed choice.

Building the Search to Compare Drugs

1. Type the drug (brand or generic) in the *Enter Search Term:* field. If you are unsure of the spelling, just type as many characters as you know.
2. *Matching Drug Names*
As you type, the word wheel begins to narrow your search results in the *Matching Drug Names* list based on the characters you entered. The more characters you type, the more focused the results. The number of matches to the drug name is also updated as you type.
If the drug you are interested in is listed in the *Matching Drug Names* list, click on the drug and then click the add button (➤) to add the drug to the *Drugs to Compare* list.

If you add a drug in error, remove it from the list by clicking on the drug, then click the remove button (◀).

3. *Related Names*
Results shown in the *Matching Drug Names* list populate strictly based on the characters used in the search. Results shown in the *Related Names* list can be:
 - The generic name if the search was for a branded or trade name drug
 - The brand or trade name if the search was for a generic drug or synonym

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- A synonym for the drug name

For example: type 'keflex' in the *Enter Drug Name:* field and the Matching Drug Names list displays: Keflex, and the *Related Names* list populates with: Bio-Cef , Cefalexin, Cephalexin, and Panixine DisperDose.

If the drug you are interested in is listed in the *Related Names* list, click on the item and then click the add button (➤) to add the drug to the *Drugs to Compare* list.

The screenshot shows a web interface titled "Drug Comparison". At the top, there is a search field with the placeholder text "Enter search term:". Below the search field, there are two columns of results. The left column is titled "Matching drug names: (1)" and contains a single item, "Cuprimine", which is highlighted in blue. The right column is titled "Drugs to check:" and contains a list of three items: "Amoxapine", "Amoxicillin", and "Cuprimine". Between the two columns, there are two buttons: a right-pointing arrow (>) and a left-pointing arrow (<). At the bottom right of the interface, there are two buttons: "Clear" and "Submit".

- 4 Repeat steps 2 through 3 until your list of *Drugs to Compare* contains all the items you are interested in viewing. Up to 20 drugs can be compared at a time. When the list is complete, click the **Submit** button to view the information.

Drug Comparison Results

The comparison page displays the information for the topic selected in a side-by-side layout to allow you to quickly compare and contrast the selected drugs.

The screenshot displays the 'Drug Comparison Results' interface. At the top, there is a 'Modify Comparison' button and a 'Change the drugs to compare' callout pointing to two dropdown menus labeled 'Display in Column 1' (containing Amoxapine) and 'Display in Column 2' (containing Amoxicillin). Below these is an 'Update' button. A 'Print' icon is in the top right. A 'Jump To:' navigation bar lists various topics: Top of Page, Dosing & Indications, Black Box Warning, Contraindications/Warnings, Drug Interactions (single), Adverse Effects, Name Info, Mechanism of Action/Pharmacokinetics, Administration/Monitoring, How Supplied, Toxicology, Clinical Teaching, and References. The main content is split into two columns: Amoxapine on the left and Amoxicillin on the right. Both columns have a 'View Detailed information in DRUGDEX' link. The 'Dosing & Indications' section is highlighted in purple in both columns, with a 'Sub-topic links' callout pointing to it. The Amoxicillin column shows a list of sub-topics under 'Dosing & Indications', including 'Adult Dosing', 'Bacterial endocarditis; Prophylaxis', 'Chlamydial infection', 'Ear, nose, and throat infection', 'Gonorrhea', and 'Helicobacter pylori'. A vertical 'Feedback' button is on the right side.

Selected Topic

The results display the Dosing & Indications topic by default. Click the desired topic link in the *Jump To* area to view other topics available for comparison.

Select another topic by clicking the item in the list.

Topic Outline Section	Description
Dosing & Indications	Can include adult and pediatric dosing information; dose adjustments; and indications (FDA and non-FDA labeled).

Topic Outline Section	Description
Tradenames/How Supplied/Regulatory Status/Generic Availability	Includes: Trade names, synonyms, class, regulatory status, and generic availability. How Supplied information includes: routes, forms, and names. Lists whether a drug is Rx or OTC; and if generics are available.
Black Box Warning	A black box warning (also sometimes called a black label warning) is a type of warning that appears on prescription drugs that may cause serious adverse effects.
Contraindications/Warnings	Includes contraindications, precautions, pregnancy category, and breast feeding information.
Drug Interactions (Single)	Interactions with the drug to: other drugs, food, ethanol, and labs.
Adverse Effects	Categorized into common and serious adverse affects.
Mechanism of Action/Pharmacokinetics	Pharmacokinetics can include: absorption, metabolism, excretion, and elimination half life.
Administration/Monitoring	Information on how to administer the drug; how to monitor the patient while using the drug.

Jump to: Topic links

A topic is a logical area of information. For example, adult dosing and pediatric dosing are sub-topics of the Dosing & Indications topic. The topics available are shown as links at the top of the page. Navigate quickly to a topic (or sub-topic) by clicking the link.

Selected Drugs (Display in Column 1 | Display in Column 2)

Click the drop-down to place a different drug in either column. Up to twenty drugs can be selected for a comparison, but only two are shown on the comparison page at any one time.

Hypertext Links

Links shown on the comparison page mean that further information exists. Click the link to view the information. Links shown as numbers within brackets (e.g., [1]) link to the reference or citation for the information. Links can also open definitions for items shown in the summary information (such as, Breast Feeding Categories, Strength of Evidence, Strength of Recommendation, to name a few).

Linked information is presented in its own pop-up box that can be printed if desired.

Modify Your Search

Return to the Drug Comparison home page to change the list of drugs to compare by clicking the Modify Comparison button. You are presented with the drug comparison page, populated with your previous drug selections. Add or change the drugs to compare and then click the **Submit** button to show the drugs side-by-side again.

Chapter 15: NEOFAX® / PEDIATRICS

Introduction

NeoFax®

More than, premature babies were born in the US in, and approximately million babies were born premature worldwide. Many of these babies require medical care in the Neonatal Intensive Care Unit NICU. It is estimated that to of medications are used off-label in the NICU setting, and neonates are at higher risk for preventable adverse drug events and medication errors. Consequently, drug dosing is particularly challenging and complex in the neonatal population. NeoFax® is designed to help clinicians improve outcomes and efficiencies with tools to safely and efficiently prescribe, calculate, and administer drug therapy for neonates. By providing complete neonatal drug information, NeoFax® helps clinicians make accurate and informed treatment decisions while minimizing the risks for error. Using NeoFax® will help improve consistency across the neonatal care team and reduce medication errors.

Pediatrics

Medication safety is a critical challenge in the healthcare industry and even more so in pediatrics. As children grow and change, so does the need for the most timely, accurate dosing, efficacy, and safety information available. Merative is pleased to provide Pediatrics. Backed by the same editorial and clinical rigor that powers NeoFax®, our Pediatrics solution provides clinicians with the information, tools, and evidence-based approach to prescribing drugs for this vulnerable patient population.

Navigation

To begin using the Micromedex® NeoFax® / Pediatrics application, navigate to the URL you have been provided. Depending upon your configuration, you may be presented with a login page similar to the following.

Merative Micromedex® Web Applications Access

Product update and notifications: There are no current notifications.

Your applications:

- Micromedex
- CareNotes
- CareNotes Administration
- Formulary
- Formulary Administration
- User Management Tool

Clinical Knowledge:

Medication, Disease and Toxicology Management

- Evidence based clinical resources to support informed diagnosis and treatment decisions.
- Unbiased, referenced Clinical Decision Support (CDS) for medication, toxicology, disease, and alternative medicine.
- Safely and reliably manage drug therapy for pediatric and neonatal patients with NeoFax and Pediatrics evidence-based drug information.
- RED BOOK for drug pricing, drug data, and manufacturer information.

Formulary:

Facility wide Formulary Management

- Easy-to-use online tool to effectively manage and update hospital formulary and communicate the most current information facility-wide.

Patient Connect:

CareNotes

- Provides patients with complete, easy-to-understand patient education handouts.
- Patient education for conditions and diagnoses, labs, and procedures, written for every stage of care.
- Medication Instructions deliver a single source of evidence-based patient education.
- Documents are written at a 5th-7th grade reading level, and are available in up to 15 languages

Medication Essential Fact Sheets

- Short and to-the-point drug information that supports better patient understanding and adherence.
- Helps improve medication-related Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores.

[Log in](#) as someone else.
[Logout](#)

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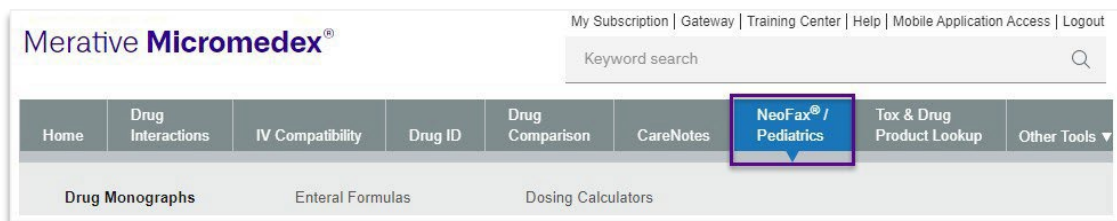
Click the Log in link to populate the following user login fields with the appropriate information:

- User Name
- Password

Click the Log In button.

-OR-

If your facility subscribes to content in Micromedex® Solutions, you can launch NeoFax® / Pediatrics by clicking on the NeoFax® / Pediatrics tool available at the top of every Micromedex Solutions page. Users provided with subscriptions for NeoFax® can access the NeoFax® drug related information and Pediatric subscription users can access Pediatric drug information. Based on your subscription, users can either access NeoFax®, Pediatric or both NeoFax® / Pediatrics.



Tabbed Navigation

Navigating the application is simple. Designed to meet your needs in an efficient manner, NeoFax® / Pediatrics operates via a series of top-level tabs. The tabs that display may vary depending on your facility's implementation and individual user rights.

TAB NAME	DESCRIPTION
Drug Monographs	Provides access to information on over 160 neonatal and pediatric drugs. For more information see Drug Monographs on page 214 .
Enteral Formulas	Displays the nutritional information for infant and pediatric enteral formulas, and allows a comparison of up to three different formula selections. For more information see Enteral Formulas on page 216 .
Dosing Calculators	Provides drug, age, and indication specific drug dosing information and calculators. For more Information see Dosing Calculators on page 221 .

Additional Navigation

Available throughout the application in the upper right of every page are links to the following:

- My Subscription
- Gateway
- Learn about the powerful features and functions available in the products. The Training Center offers elearning courses FREE OF CHARGE.
- Context Sensitive Help
- Mobile Application Access
- Logout button

My Subscription | Gateway | Training Center | Help | Mobile Application Access | Logout

What's New

The What's New functionality available in NeoFax® / Pediatrics module, displays the updated drug content related to new drugs and existing drugs for Drug Monographs, Enteral Formulas and Dosing Calculators. Click the **What's New** link seen in the image below for more information.



The image below presents the following information as What's New content for Monographs and Calculators

1. New Monographs and Calculators (these are the newly added drugs)
2. Content Updates (Existing drugs with content updates)
3. Dose and dose-related changes (Existing drugs with dose related content changes)

NeoFax® / Pediatrics What's New Content

Content updates for NeoFax®:

New Monographs and Calculators:

- Dalteparin
- Hypromellose
- Liothyronine
- Potassium Iodide
- Proparacaine

Content updates:

- Acetylcysteine
- Acyclovir
- Albuterol
- Amphotericin B
- Amphotericin B Liposome
- Ampicillin
- Buprenorphine
- Ceftaroline Fosamil
- Dexmedetomidine
- Factor IX (Recombinant), Fc Fusion Protein
- FentaNYL
- Fluconazole
- Fosphenytoin
- Furosemide
- Glucagon
- HydroCHLORothiazide
- Insulin Human Regular
- LevETIRAcetam
- Levodopa

Dose and dose-related changes:

- Ampicillin
- Ceftaroline Fosamil
- Penicillin G
- Vancomycin

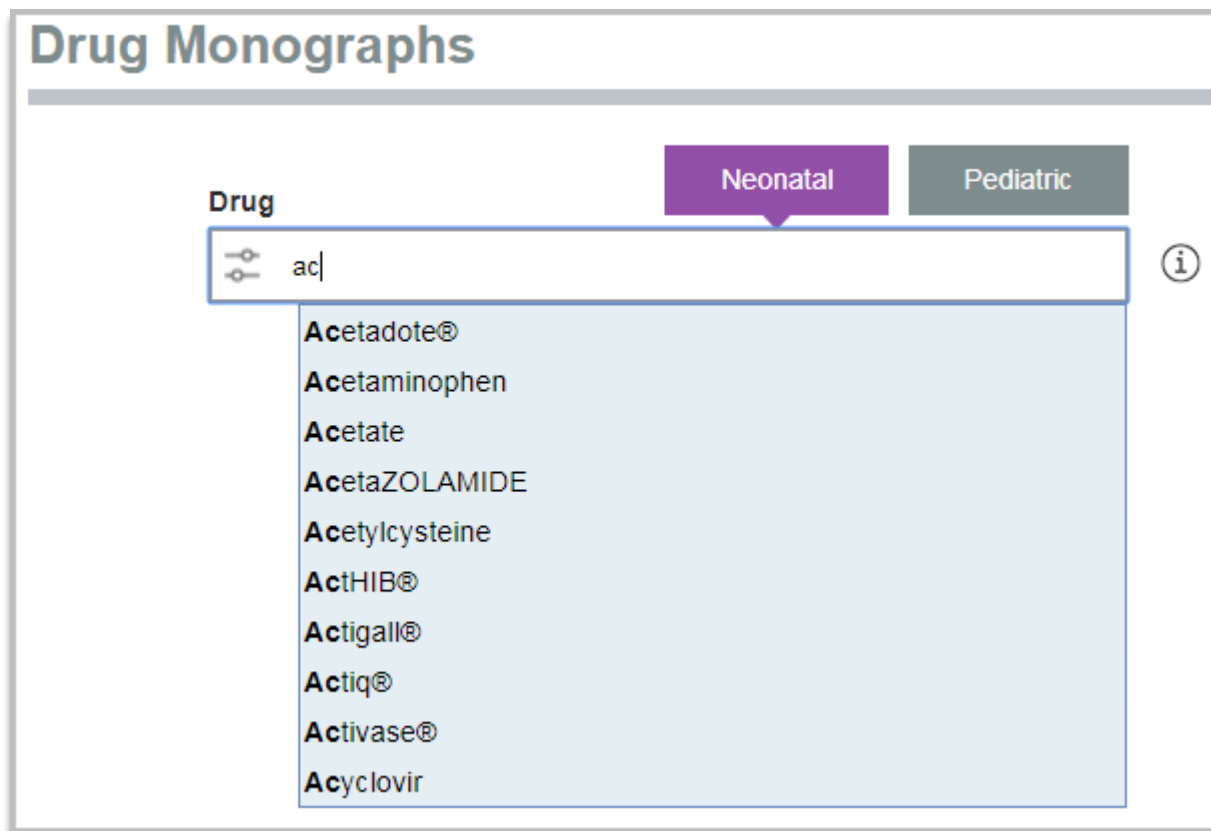
Note:

1. What's New content is conditional. If there are no new drugs added, then it won't be listed under What's New. Drugs will be displayed based on subscription.
2. The 'What's New' will be available only for Online Internet (THIDS) users and not to the Offline (THIAS) Intranet users.

Drug Monographs

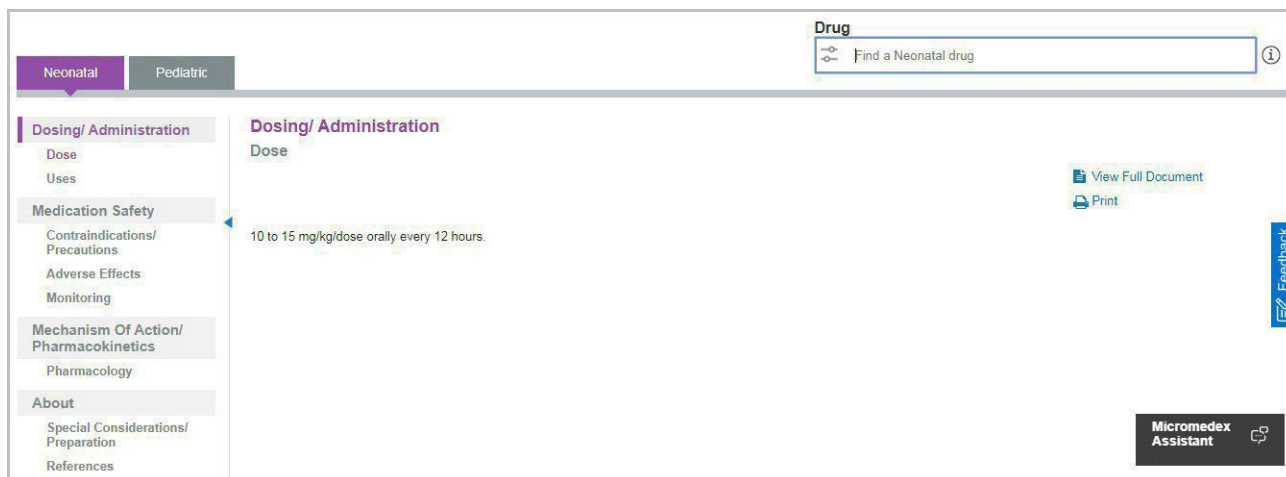
The tab labeled Drug Monographs provides the ability to view drug monographs for neonatal and/or Pediatric drugs (depending upon your subscription).

To begin using this functionality, click the Drug Monographs tab, located at the top of the page. The drug monographs search tool displays.



Begin typing the drug name in the **Drug** field. The drug listing on the page filters down to any drug names that match the letters you entered. For example, enter the letters “ac” in the Drug field to begin a search for the drug name “Actigall®”. The drug list narrows the selections to possible matches to the text you have entered.

Once you see the name of the drug for which you are searching, single-click on the name of the drug to select the drug. The drug monograph is displayed. To better aid you in navigating through the drug information, the box under the drug name contains links to each section of the drug monograph. Rather than scrolling through a long document to locate the information you need, the links provide the ability to jump directly to the section you want to view.



Monograph Sections

Drug Monograph is built-in with a wide range of sections as listed below

- Dose
- Uses
- Administration
- Contraindication/ Precautions
- Adverse Effects
- Black Box Warning
- Solution Compatibility
- Terminal Injection Site Compatibility
- Terminal Injection Site Incompatibility
- Monitoring
- Pharmacology
- Special Considerations/ Preparation
- References

NOTE: Not all monographs contain all sections.

Navigation

Each section of the drug monograph contains a View Full Document link, Printer icon and View Document Sections link.



NAVIGATION LINK	DESCRIPTION
View Full Document	Provides an easy way to view the whole drug monograph in a single page.
Printer	Allows you to conveniently print the full drug monograph from any section.
View Document Sections	Helps you to navigate back to the Drug Monograph page with sections on the left panel.

NOTE: The **Printer** icon that is available within each section of the drug monograph will print the entire monograph, not just the section from which you selected the **Printer** icon.

Enteral Formulas

The Enteral Formulas tab displays the nutritional information for enteral formulas. The application provides the ability to compare the nutritional content of up to three different enteral formulas side-by-side.

To Perform the Search Action

- Select the required Display Format as (Per 100 Cal, Per Liter, Per Both)
- Enter the first few letters of your search.
- Search results will display the number of formulas available.
- To select the required formula name, double click on the formula under **Formulas Available** box or Select the required formula name and click on  button to add the formulas to **Formulas Selected** box.
- To remove the selected formulas from Formulas Selected box, double click on the formula under **Formulas Selected** box or select the formula you want to remove under **Formulas Selected** box and then click on  button to clear the formula selection.
- Maximum of three formulas can be selected for nutrient comparison

Formula Search for Neonatal

Display Format: Per 100 Cal Per Liter Per Both

Enter search term:

g

Formulas Available: (10)

- GA
- Gerber® Good Start® Gentle
- Gerber® Good Start® Premature 20
- Gerber® Good Start® Premature 24
- Gerber® Good Start® Premature 24 High Protein**
- Gerber® Good Start® Premature 30
- Gerber® Good Start® Soothe
- Gerber® Good Start® Soy
- Glutarex®-1
- Glutarex®-2

Formulas Selected: (Maximum of 3 formulas can be selected)

- Gerber® Good Start® Premature 24 High Protein

Clear Product Notes Display

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Formula Search for Pediatric

Display Format: Per 100 Cal Per Liter Per Both

Enter search term:

Formulas Available: (2)

- Ketonex®-1
- Ketonex®-2

Formulas Selected: (Maximum of 3 formulas can be selected)

- Ketonex®-1

Clear Product Notes Display

Viewing a Single Formula

From the top of the page, click the Enteral Formulas tab. The Available Formulas page displays.

Display Format: Per 100 Cal Per Liter Per Both

Enter search term:

Formulas Available: (8)

- Gerber® Good Start® Gentle
- Gerber® Good Start® Premature 20
- Gerber® Good Start® Premature 24
- Gerber® Good Start® Premature 24 High Protein
- Gerber® Good Start® Premature 30
- Gerber® Good Start® Soothe
- Gerber® Good Start® Soy
- Glutarex®-1

Formulas Selected: (Maximum of 3 formulas can be selected)

- Gerber® Good Start® Premature 24 High Protein

Clear Product Notes Display

Make a selection from the *Display format* area of the page. The *Display format* area provides the ability to designate the manner by which you want to view and/or compare formulas. Make a selection from the following choices:

- Per 100Cal(calories)
- Per Liter
- Per Both

After selecting the display format you want to use, make a selection from the *Formulas Available* list. Begin typing the formula name or use the scroll bar to scroll through the formulas until you locate the one for which you want to view nutritional information and then double-click on the formula name. The name of the formula now appears in the *Formulas selected* box.

To view the nutritional information for a selected formula, click the **Display** button. The nutritional information appears. The left column of the chart displays the nutrients in the infant formula. The right column displays the amount of each specific nutrient, based on the display option (Per 100 Calories, Per Liter, or Per Both) selected. After reviewing the information displayed, the clinician can make an appropriate decision on which formula to use for a specific patient.

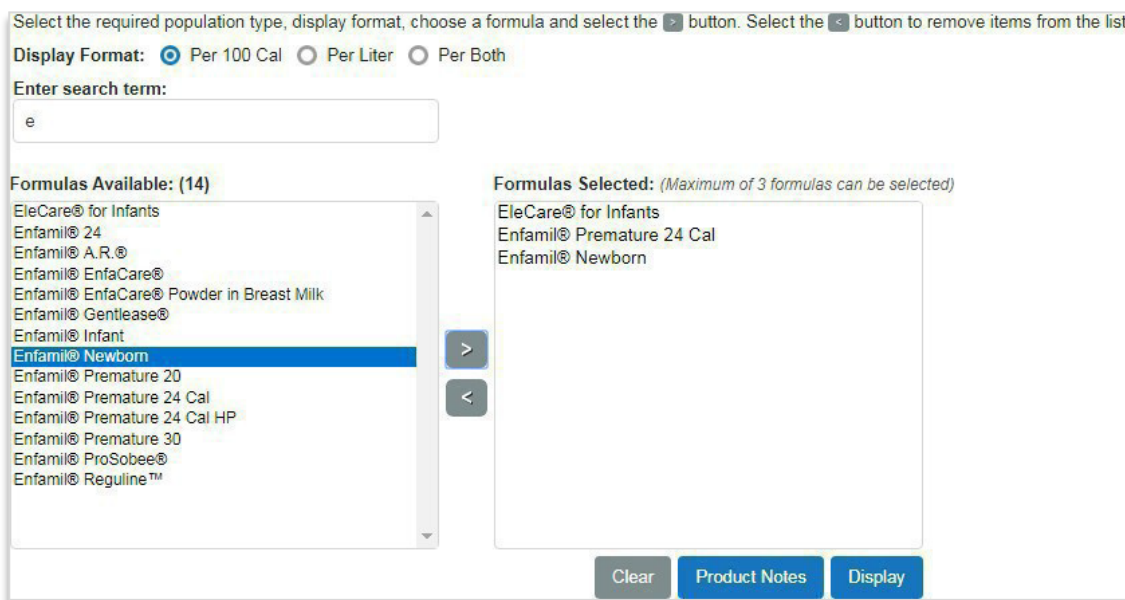


Nutrient	Gerber® Good Start® Premature 24 High Protein
	Per 100 cal
Energy, Cal	100
Volume, mL	123
Protein, g	3.6
% of total calories †	14
Fat, g	5.2
% of total calories ††	47
Linoleic acid, mg	990
Carbohydrate, g	9.7
% of total calories §	39
Water, g	110
Minerals	
Calcium, mg (mEq)	164 (8.2)
Phosphorus, mg (mEq)	85 (2.7)
Magnesium, mg	10
Iron, mg	1.8
Zinc, mg	1.3
Manganese, mcg	7
Copper, mcg	150
Molybdenum, mcg	-
Iodine, mcg	35
Selenium, mcg	2

Viewing Multiple Formulas

A clinician may want to compare several different formula mixtures to ensure that the best possible nutrition is administered to a patient. The application provides the ability to view a side-by-side comparison of up to three different formulas.

To compare multiple formulas, select a Display format. Then, using the scroll bar, scroll through the list of formulas in the Formulas Available page. Double-click on the names of up to three different formulas to select the formulas for comparison. The formulas to be compared will appear in the Formulas selected box.



Click the **Display** button. A comparison chart of the selected formulas appears.

[Print](#)

Nutrient	EleCare® for Infants	Enfamil® Premature 24 Cal	Enfamil® Newborn
	Per 100 cal	Per 100 cal	Per 100 cal
Energy, Cal	100	100	100
Volume, mL	148	123	148
Protein, g	3.1	3.3	2.1
% of total calories †	15	13	8.5
Fat, g	4.8	5	5.3
% of total calories ††	43	44	48
Linoleic acid, mg	840	810	860
Carbohydrate, g	10.7	10.8	11.2
% of total calories §	42	43	43.5
Water, g	132	108	133
Minerals			
Calcium, mg (mEq)	116 (5.8)	165 (8.3)	78 (3.9)
Phosphorus, mg (mEq)	84.2 (2.7)	90 (2.9)	43 (1.4)
Magnesium, mg	8.4	9	8
Iron, mg	1.8*	1.8	1.8*
Zinc, mg	1.15	1.5	1
Manganese, mcg	84	6.3	15
Copper, mcg	126	120	75
Molybdenum, mcg	2.5	--	--
Iodine, mcg	8.9	25	15

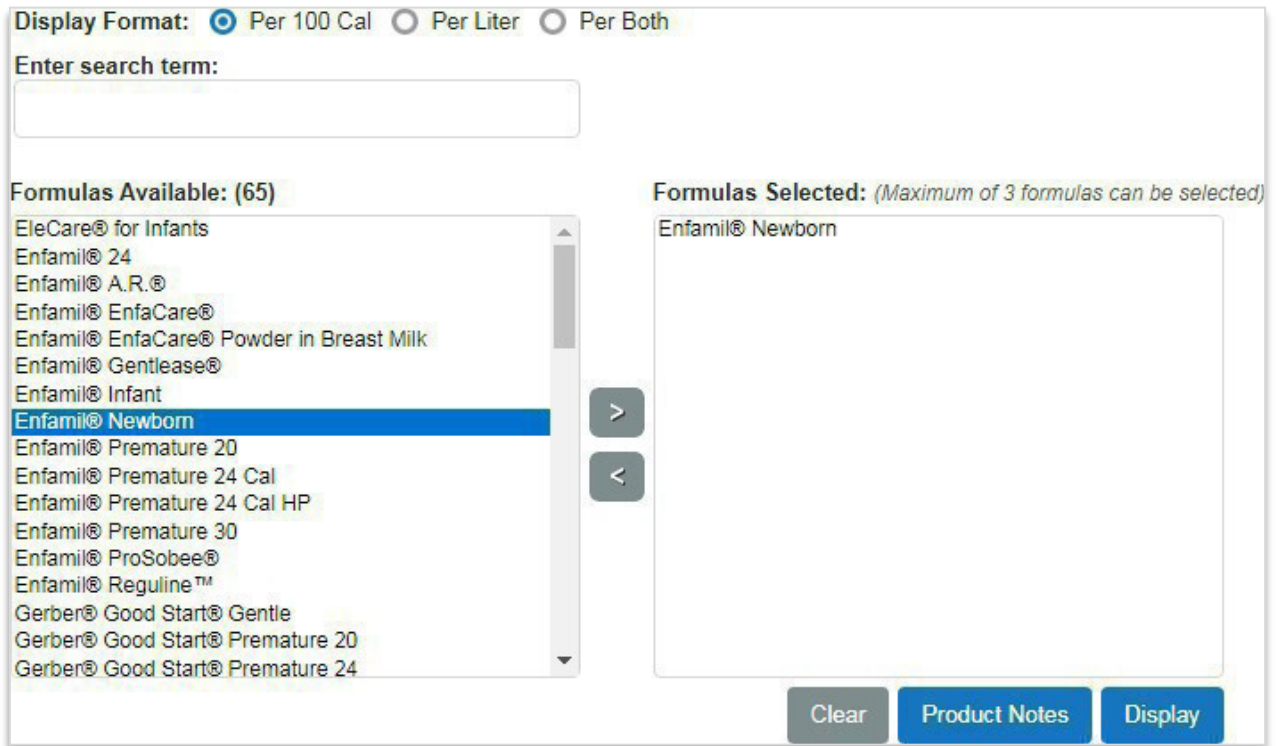
The left column of the chart displays the nutrients in the infant formula. The remaining columns display the amount of each specific nutrient, based on the display option (Per 100 Cal, Per liter, or Per both) selected.

Print

You can use the Print link at any time to print the formula nutrient information.

Product Notes

In addition to viewing the nutritional information for the formulas selected, you can also review product notes, provided by the manufacturer, by clicking the **Product Notes** button. The product notes provide information on protein, carbohydrate, and fat source data, and include dilution tables, when available.



Click the **Product Notes** button, a new browser window is opened up with the information related to entered formulas. You can maximize or minimize the browser window.

Product Notes

Enfamil® Newborn

Enfamil® Newborn

20 Cal/fl oz
Available as powder and ready-to-feed.

* Iron supplementation should be considered for premature infants.

† Protein Source: Whey and nonfat milk.
†† Fat Source: Palm olein oil (44%), soy oil (19.5%), coconut oil (19.5%), high-oleic sunflower oil (14.5%), and a blend of DHA and ARA from single-cell oils (2.5%; 0.32% DHA; 0.64% ARA).
§ Carbohydrate Source: Lactose from cow's milk. Also contains the prebiotic carbohydrates galactooligosaccharide (GOS) and polydextrose (PDX).


WARNING: Powdered infant formulas are not sterile and should not be fed to premature infants or infants who might have immune problems.

Dosing Calculators

The Dosing Calculators tool provides the ability to obtain dosing information and calculators specific to the drug, patient's age, and the indication.

To use this tool, click the Dosing Calculators tab at the top of the page. The Patient Information page displays.

Dosing Calculators - Patient Information

Birthdate: (MM/DD/YYYY) 

Population Type:

Age

Current Weight: kg

[Proceed to Calculator](#)

Entering Patient Information

Enter the patient information as displayed in the Patient Information Page. Use the field descriptions below to populate the patient information fields.

NOTE:


- The fields displayed in the *Patient Information* page will vary depending upon the **Population Type** selected (i.e., pediatric or neonatal).
 - The **Population Type** drop-down menu will only be available if you subscribe to both Pediatrics and NeoFax.
-

Field	Description
Fields Common to Neonatal and Pediatric Patients	
Birthdate (MM/DD/YYYY)	Enter or use the Calendar icon to select the date of birth.
Population Type	Depending on the birth date entered, the program may default to either Neonatal or Pediatric (if you have both subscriptions) or may allow the user to choose the appropriate population. See "Population Type" below.
Current Weight	In kilograms, enter the current dosing weight of the patient.
Neonatal-specific Fields	
Gestational Age	From the drop-down, select the patient's gestational age in weeks and enter days value if known.
Postnatal Age	The postnatal age of the patient is automatically calculated (in weeks and days) based on the date of birth entered.
Postmenstrual Age	The postmenstrual age of the patient is automatically calculated (in weeks and days) based on the date of birth and gestational age entered.
Pediatric-specific Fields	
Age	The patient's age is automatically calculated based on their date of birth.

Population Type

Patients with a postnatal age (or birth date) less than 29 days will automatically be designated as Neonatal. For patients 29 days to 18 weeks postnatal age (based on birth date), the clinician can designate Neonatal or Pediatric as clinically appropriate. For example, a baby that is 5 weeks old but whose gestational age was 28 weeks will be more appropriately managed in the Neonatal system. On the other hand, a term infant who is 35 days old will be more appropriately managed in the Pediatric system. Population Types only applies to users with a subscription to both NeoFax® and Pediatrics.

Dosing Calculators - Patient Information


Birthdate: (MM/DD/YYYY) 

Population Type:

Age

Current Weight: kg

Dosing Calculators - Patient Information

Birthdate: (MM/DD/YYYY) 

Population Type:

Gestational Age: weeks days

Postnatal Age: weeks days

Postmenstrual Age: weeks days


Current Weight: kg

Once the population type is chosen, the appropriate fields will be available to complete the patient entry process.

NOTE: If the user enters an infant with a postmenstrual age greater than 44 weeks and chooses 'Neonatal,' they will be presented with a message suggesting that the choice of 'Pediatric' may be more appropriate. The choice of 'Neonatal' is still an option if the treating clinician feels this is clinically appropriate.

After entering the appropriate patient information, click the **Proceed to Calculator** button.

Dosing Calculators - Patient Information

Birthdate: (MM/DD/YYYY) 

Population Type:

Gestational Age: weeks days

Postnatal Age: weeks days

Postmenstrual Age: weeks days

Current Weight: kg

Proceed to Calculator

Selecting a Drug

After clicking the **Proceed to Calculator** button the *Drug Selection* page displays. You can begin typing the drug name in the **Alpha Filter** field. The drug list filters to drug names that match the letters you entered. For example, enter the letters “de” in the Alpha Filter field to begin a search for the drug name “Dexamethasone.” The drug list narrows the selections to possible matches to the text you have entered.

Dosing Calculators - Calculator

Neonatal

Drug Selection

Alpha Filter:

Drug:

Help Information

- Enter the first few letters of the drug's name.
- Select the drug to display.

1 Month, 25 Days 43 wk, 0 da PMA

3 kg 35 wk, 0 da EGA

Once you see the name of the drug for which you are searching, single-click on the name of the drug. The drug calculator information is displayed. At the top of the page are the Drug Use and Drug Route sections. The choices shown in these sections depend upon the drug selected. Highlight a choice in each section. The page refreshes based on the selections made.

MICROMEDEX® - USER GUIDE

Dosing Calculators - Calculator Neonatal

Dexamethasone

Drug Use: Inflammatory Ophthalmic Conditions
Initial dose - DART protocol

Drug Route: IV push
Oral

1 Month, 25 Days 43 wk, 0 da PMA
3 kg 35 wk, 0 da EGA

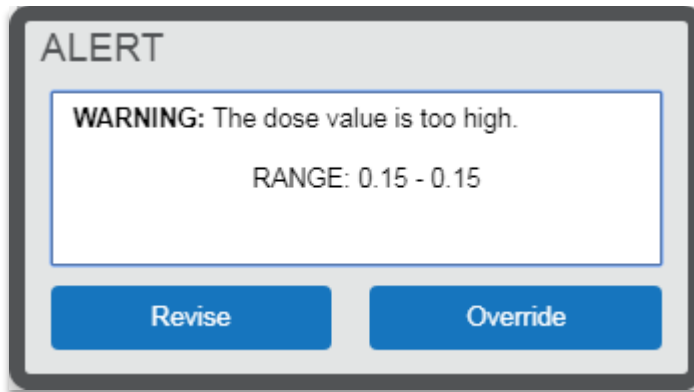
Calculator Notes
Initial dose for 3 days. Taper over the next 7 days as follows: 0.05 mg/kg/dose every 12 hours for 3 days, 0.025 mg/kg/dose every 12 hours for 2 days, and 0.01 mg/kg/dose every 12 hours for 2 days.

NeoFax	Ordered
0.075 mg/kg/dose	Dose 0.075 mg/kg/dose
every 12 hours	Interval every 12 hours
IV slow push	Admin. over 10 minutes
0.2 mg/mL dilution	Conc. 0.2 mg/mL
Dose amount	? mg/dose
Dose volume	? mL/dose
Delivery rate	? mL/hour

Change Drug Reset Form Calculate Print Drug Monograph Comments

Micromedex Assistant

The default drug dosing recommendations are automatically populated in the Dose, Interval, Admin, and Conc fields. You may change these values, if appropriate. If you enter a value outside the expected range, a pop-up message will display giving you the option to Revise your entry or Override the range.



Click the **Calculate** button to display the drug dosing values.

Dosing Calculators - Calculator Neonatal

Dexamethasone

Drug Use: Inflammatory Ophthalmic Conditions
Initial dose - DART protocol

Drug Route: IV push
Oral

1 Month, 25 Days 43 wk, 0 da PMA
3 kg 35 wk, 0 da EGA

Calculator Notes
Initial dose for 3 days. Taper over the next 7 days as follows: 0.05 mg/kg/dose every 12 hours for 3 days, 0.025 mg/kg/dose every 12 hours for 2 days, and 0.01 mg/kg/dose every 12 hours for 2 days.

NeoFax	Ordered
0.075 mg/kg/dose	Dose 0.075 mg/kg/dose
every 12 hours	Interval every 12 hours
IV slow push	Admin. over 10 minutes
0.2 mg/mL dilution	Conc. 0.2 mg/mL
Dose amount	0.22 mg/dose
Dose volume	1.1 mL/dose
Delivery rate	6.6 mL/hour

Change these values if appropriate and click the Calculate button

Change Drug Reset Form Calculate Print Drug Monograph Comments

Micromedex Assistant

Displayed at the bottom of the form are the following buttons:

Buttons	Definitions
Change Drug	Use this button to return to the alpha list of drugs and choose a different drug.
Reset Form	Click this button to reset any changes back to the default settings.
Calculate	Click this button to calculate the Dose Amount, Dose Volume, and Delivery Rate.
Print	Use this button to Print the entire drug dosage calculation. A print preview page displays. Click Print again to send the page to the printer. NOTE: The format of the printout is dependent on the browser settings, such as offset, margins, paper size, etc.
Drug Monograph	Click this button to launch the monograph for the drug.
Comments	Use this button to enter any user comments about the administration of this drug for this patient. The comments will be displayed on the drug dosage calculation printout.

For drugs such as Dopamine, which are sometimes titrated based on patient response, a **Dose vs Rate** button appears under the dosage calculator.

Dosing Calculators - Calculator Neonatal

DOPamine

Drug Use:
Continuous infusion
Resuscitation

Drug Route:
IV

1 Month, 25 Days 43 wk, 0 da PMA
3 kg 35 wk, 0 da EGA

Calculator Notes
Observe IV site closely for blanching or signs of infiltration.

NeoFax
2 to 20 mcg/kg/minute
1600 mcg/mL

Ordered
DOSE: 5 mcg/kg/min
CONC: 1600 mcg/mL
RATE: ? mL/hr

Compound
30 mL syringe

NS ? mL
Dopamine 40 mg/mL ? mL
Total volume: 25 mL
Maximum infusion time: ? hours

Buttons: Change Drug, Reset Form, Calculate, Print, Drug Monograph, Comments, Dose vs Rate

Micromedex Assistant

Click the Calculate button to calculate the dosing values. On click of **Calculate**, **Print** and **Dose vs Rate** button will be enabled.

MICROMEDEX® - USER GUIDE

Dosing Calculators - Calculator Neonatal

DOPamine

Drug Use:
 Continuous infusion
 Resuscitation

Drug Route:
 IV

1 Month, 25 Days
 3 kg

43 wk, 0 da PMA
 35 wk, 0 da EGA

Calculator Notes
 Observe IV site closely for blanching or signs of infiltration.

NeoFax
 2 to 20 mcg/kg/minute
 1600 mcg/mL

Ordered
 DOSE 5 mcg/kg/min
 CONC 1600 mcg/mL
 RATE 0.56 mL/hr

Compound
 30 mL syringe

NS 24 mL
 Dopamine 40 mg/mL 1 mL
 Total volume: 25 mL
 Maximum infusion time: 45 hours

Change Drug Reset Form Calculate Print Drug Monograph Comments Dose vs Rate

Micromedex Assistant

When clicked, this button displays a titration table for the drug, shown below.

DOSE VS RATE

DOPamine - Continuous infusion - IV

NeoFax 2 to 20 mcg/kg/minute 1600 mcg/mL	Ordered Dose 5 mcg/kg/min Conc. 1600 mcg/mL Rate 0.56 mL/hr	1 Month, 25 Days 3 kg	43 wk, 0 da PMA 35 wk, 0 da EGA
---	---	--------------------------	------------------------------------

(* = range override)

Compound	30 mL syringe
NS	24 mL
Dopamine 40 mg/mL	1 mL
Total volume:	25 mL
Maximum infusion time:	45 hours

Dose vs Rate		Dose vs Rate	
mcg/kg/min	mL/hr	mcg/kg/min	mL/hr
2	0.22	12	1.3
3	0.34	13	1.5
4	0.45	14	1.6
5	0.56	15	1.7
6	0.68	16	1.8
7	0.79	17	1.9
8	0.9	18	2
9	1	19	2.1
10	1.1	20	2.3
11	1.2	21	2.4

Observe IV site closely for blanching or signs of infiltration.

PRINT CLOSE

The titration table can be printed for future or immediate use.

NOTE: Titration tables are not available for all drugs. A new titration chart should be printed if any changes are made to the dosing information.

Calculator Notes

Calculator Notes can be seen on the right side of Drug Selection page as shown below.

Calculator Notes

Initial dose for 3 days. Taper over the next 7 days as follows:
 0.05 mg/kg/dose every 12 hours for 3 days, 0.025 mg/kg/dose every 12 hours for 2 days, and 0.01 mg/kg/dose every 12 hours for 2 days.

Comments Suppression in Dosing Calculators

Sign in into your **Micromedex Web Application** and click on **NeoFax® / Pediatrics**.


NeoFax® / Pediatrics landing page will be displayed with the three different tabs as **Drug Monographs**, **Enteral Formulas** and **Dosing Calculators**. Click on the **Dosing Calculators** tab as shown below.

Enter the **Birthdate** or select the date by using the **Calendar** icon. Based on the birthdate the **Population Type** drop down will be displayed by default. For more information, please refer to the section [“Population Type” on page 222](#).

MICROMEDEX® - USER GUIDE

Select the **Gestational Age** from the drop-down. Enter the **Current Weight**. Click on **Proceed to Calculator**.

Dosing Calculators - Patient Information

Birthdate: (MM/DD/YYYY) 

Population Type:

Gestational Age: weeks days

Postnatal Age: weeks days

Postmenstrual Age: weeks days

Current Weight: kg

[Proceed to Calculator](#)

Drug Selection page will be displayed. Enter the first few letters of the drug in the **Alpha Filter** field to search the name of drug you wish to select.

Drug Selection

Alpha Filter:

Drug:

- Acetadote
- Acetaminophen
- Acetylcysteine
- Actigall
- Actiq
- Activase
- Acyclovir

The Drug field will display the list of drugs related to your search. Select the drug **“Acetaminophen,”** from the drug list.

Drug Selection

Alpha Filter:

Drug:

- Acetadote
- Acetaminophen**
- Acetylcysteine
- Actigall
- Actiq
- Activase
- Acyclovir

By selecting the drug name as **Acetaminophen**, it will navigate you to the **Dosing Calculators - Calculator** page.

Acetaminophen

Drug Use:
 Closure of Patent Ductus Arteriosus
 Fever
 Loading dose
 Maintenance

Drug Route:
 Oral

1 Day	36 wk, 1 da PMA
4 kg	36 wk, 0 da EGA

Calculator Notes
 For 3 days.

NeoFax
 15 mg/kg/dose
 every 6 hours
 orally
 32 or 100 mg/mL

Ordered
 Dose: mg/kg/dose
 Interval every: hours
 Admin. orally
 Conc. mg/ml

Dose amount: ? mg/dose
 Dose volume: ? mL/dose

Buttons: Change Drug, Reset Form, Calculate, Print, Drug Monograph, Comments

Micromedex Assistant

In this page, you can view the **Comments** button. If you are not able to see this button that means the button has been suppressed. This could be due to PHI regulations in your region.

Acetaminophen

Drug Use:
 Closure of Patent Ductus Arteriosus
 Fever
 Loading dose
 Maintenance

Drug Route:
 Oral

1 Day	36 wk, 1 da PMA
4 kg	36 wk, 0 da EGA

Calculator Notes
 For 3 days.

NeoFax
 15 mg/kg/dose
 every 6 hours
 orally
 32 or 100 mg/mL

Ordered
 Dose: mg/kg/dose
 Interval every: hours
 Admin. orally
 Conc. mg/ml

Dose amount: ? mg/dose
 Dose volume: ? mL/dose

Buttons: Change Drug, Reset Form, Calculate, Print, Drug Monograph, **Comments**

Micromedex Assistant

If you are not able to see this button "Comments" then it is typically due to PHI regulations in your region

MICROMEDEX® - USER GUIDE

If you click on **Comments** button, you can add any comments in the provided **User Comments** text area.

The screenshot shows a dialog box titled "USER COMMENTS". It contains a "Help Information" section with a text box stating "Notes are limited to 255 characters." Below this is a "User Comments" section with a larger text area containing the text "This is for testing". At the bottom center of the dialog is a blue "OK" button.

Once you have entered the user comments into the text area, click on **OK** and then click the **Calculate** button. On click of the Calculate button, the **Print** button will be enabled.

The screenshot displays the Micromedex Assistant interface for Acetaminophen. It includes a "Drug Use:" dropdown menu with options like "Closure of Patent Ductus Arteriosus", "Fever", "Loading dose", and "Maintenance". A "Drug Route:" dropdown menu is set to "Oral". A table shows dosing information: "1 Day" and "4 kg" on the left, and "36 wk, 1 da PMA" and "36 wk, 0 da EGA" on the right. A "Calculator Notes" text box contains "For 3 days." The "Ordered" section shows "Dose" as 15 mg/kg/dose, "Interval every" as 6 hours, "Admin." as orally, and "Conc." as 32 mg/ml. Below this, "Dose amount" is 60 mg/dose and "Dose volume" is 1.9 mL/dose. At the bottom, there are buttons for "Change Drug", "Reset Form", "Calculate", "Print", "Drug Monograph", and "Comments". A "Micromedex Assistant" logo and a "Feedback" link are also visible.

Print page will display the drug related information, and the user comments entered will be shown as **Order Notes** in the print page. Click on **Print** the added user comments will be printed.

PRINT FRIENDLY

every 6 hours	Interval every 6 hours
orally	Admin orally
32 or 100 mg/mL	Conc 32 mg/ml
	(* = range override)
Dose amount	60 mg/dose
Dose volume	1.9 mL/dose

metoclopramide 5 mg/mL, midazolam 5 mg/mL, morphine 15 mg/mL, nalbuphine 20 mg/mL, ondansetron 2 mg/mL, potassium chloride 0.1 mEq/mL.

Terminal Injection Site Incompatibility: Diazepam.

Compatibility information refers to physical compatibility and is derived from Trissel's™ 2 Clinical Pharmaceutics Database. The determination of compatibility is based on concentrations for administration recommended herein. Drug compatibility is dependent on multiple factors (eg, drug concentrations, diluents, storage conditions). This list should not be viewed as all-inclusive and should not replace sound clinical judgment. The user is referred to Trissel's™ 2 for more complete details.

Trissel's™ 2 Clinical Pharmaceutics Database, version updated on 06/15/2013.



Solution Compatibility: D₅W; NS.

Note: Some sections are too long to display in this area. Please refer to Neofax for additional information.

Order Notes: This is for testing

NeoFax Calculator Notes: For 3 days.

Acetaminophen
60 mg/dose
Oral every 6 hours

PRINT  CLOSE 

The user comments may contain PHI data as patient information, special instructions, or any specific information related to the drug dosage for the patient. This **Comments** button will be suppressed, and the user will not be able to see this button. For details see [“Appendix G: Free Text Fields Suppression” on page 356.](#)

Note: The 'Dosing Calculators' tab will be available only for Online Internet (THIDS) users and not to the Offline (THIAS) Intranet users.

CHAPTER 16: TOX & DRUG PRODUCT LOOKUP TOOL

To access the **Tox and Drug Product Lookup** application, sign in into your **Micromedex Web Application** using the Login credentials as Username and Password. Click the **Log In** button, it will navigate you directly into the Home Search page of Micromedex.

Click the **Tox & Drug Product Lookup** tab, it will navigate you directly into the **Tox & Drug Product Lookup Search** page. This search page is designed with three different tabs in an efficient manner by enabling the clinicians to start their search related to the drug products they have been looking for.

The three different tabs are listed as shown below:

- Product and Substances
- Martindale Global Drug
- Company Contacts

Use the Tox & Drug Product Lookup Tool to search for information about:

- Drug products (by brand name, generic, or branded generic)
- Product Search Codes (by NDC, CAS, AAPCC or EPA Code)
- Product ID Code (7-digit product ID code)
- Active Ingredients
- Commercial/household products and chemicals (by product name or synonym)
- Other substances including plants and animals (by Latin or common name)
- Slang terms/street names for drugs or substances

The Tox & Drug Product Lookup Tool is accessed from the Micromedex® toolbar. Depending on your subscription it may be visible in the toolbar of Micromedex Application.

The screenshot shows the Micromedex application toolbar with the 'Tox & Drug Product Lookup' tab selected. Below the toolbar, the 'Tox & Drug Product Lookup' page is displayed. It features three tabs: 'Products and Substances' (selected), 'Martindale Global Drug', and 'Company Contacts'. A search bar is present with the placeholder text 'Search for product or substance'. Below the search bar, there are two columns of search options:

- Search by Name**
 - Drug product name
 - Commercial/household product name or chemical
 - Substance including plant and animal scientific or common name
 - Slang terms/street names for drugs or substances
- Search by Code**
 - AAPCC code - [Lookup Definitions](#)
 - Micromedex product ID
 - National Drug Code (NDC)
 - Chemical Abstracts Service (CAS) number
 - Drug Identification Number (DIN - Canada)
 - Environmental Protection Agency (EPA) code
 - Universal Product Code (UPC)
 - Pest Control Product (PCP) code
 - California Registry Number (CRN)
 - Fertilizer Act

A vertical 'Feedback' button is visible on the right side of the page.

INFORMATION INCLUDED IN THE TOX & DRUG PRODUCT LOOKUP TOOL

Information on hundreds of thousands of products and substances is gathered into the Tox & Drug Product Lookup Tool. POISINDEX identifies ingredients for hundreds of thousands of commercial, pharmaceutical, and biological substances. Each substance is linked to one or more treatment/management protocols providing information on clinical effects, range of toxicity, and treatment protocols for exposures involving the substances.

The Tox & Drug Product Lookup allows you to search by:

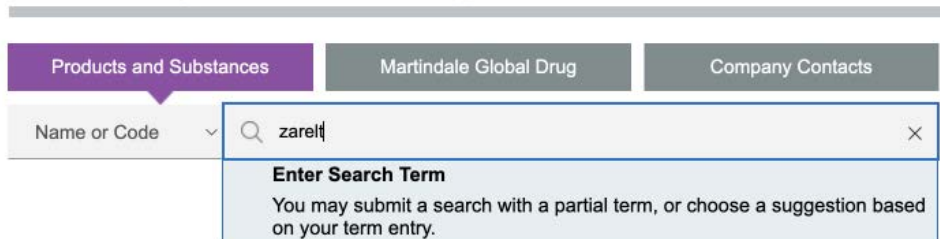
- **Name** ([see page 235](#))
- **Specific code** - such as: NDC, CAS, EPA or AAPCC code ([see page 236](#))
- Valid 7-digit **Product ID** ([see page 238](#))
- **Active Ingredient Search** in the substance ([see pages 239, 244](#))
- **AAPCC Code Definitions** (available by subscription) shown as a link from the Tox & Drug Product Lookup home page ([see page 237](#))

Search results include links to the associated POISINDEX & DRUGDEX Management.

Spelling Help

For each type of search if you enter a search term that does not produce results, but is similar to a valid search term, you will be displayed with a message “**Enter Search Term** You may submit a search with a partial term, or choose a suggestion based on your term entry.” The moment you press the **Enter** key you will receive alternative search term suggestions that link to results.

Tox & Drug Product Lookup



The screenshot shows the search interface with three tabs: 'Products and Substances' (selected), 'Martindale Global Drug', and 'Company Contacts'. The search bar is labeled 'Name or Code' and contains the text 'zarell'. A dropdown message box is open, displaying the text: 'Enter Search Term. You may submit a search with a partial term, or choose a suggestion based on your term entry.'

No Results Found

We were unable to find the results for "zarell".

Did you mean

- [zarent](#)
- [xarelto](#)
- [zarelix](#)
- [zarelle](#)
- [zarevet](#)

Search Help

- Check spelling
- Use the suggestions listed in the search dropdown

LOOKUP PRODUCT / SUBSTANCE BY NAME OR CODE

Product / Substance Name Search

You can start your search by selecting the option in the scope filter. When the **Scope Filter** is chosen with the option **Name or Code**, then the **Placeholder Text** will show as **Search for product or substance**. If you wish to search by text, you need to type the search term in the form of text, product or substance name search results will be displayed in a dropdown or rolldown list here. If you wish to search by numbers, you need to type the search term in the form of numbers, code and product ID search results will be displayed in a dropdown or rolldown list here. The application will return results for items where the search term begins with the search term as well as for items where the search term is contained within the name or synonym.

The word wheel will populate the exact search term or keyword as the first term followed by the associated products. While performing the search process, if you click on any other location within the **Tox & Drug Product Lookup Search** page, the word wheel gets disappeared allowing the user to perform a new task.

When we search for any drug in the search field, we sorted the results as follows: First we display the Exact Match follows with the Contains results and then follows the rest if any.

1. Begin typing the name in the *Search for product or substance* field. The word wheel will populate with matches after you have typed a single character.
2. Continue to type the entire product name. Search results will display the list of related product names. Select the required product name, it will navigate you directly into the **Tox & Drug Product Lookup Results** page.

- or -

Type the partial product name, scroll down until you find the item in the list. Click on the item to select it and then it will navigate you directly into the **Tox & Drug Product Lookup Results** page.

If you are not interested to perform a search function, press the **Esc** Key on your keyboard. By pressing the **Esc** key, the word wheel gets disappeared.

Tox & Drug Product Lookup

The screenshot shows the 'Tox & Drug Product Lookup' interface. At the top, there are three tabs: 'Products and Substances' (selected), 'Martindale Global Drug', and 'Company Contacts'. Below the tabs is a search field with the placeholder text 'Name or Code' and a dropdown arrow. The search term 'Lysol' is entered in the field. A dropdown list of search results is displayed below the search field, starting with 'Lysol' and listing various Lysol products such as 'Lysol Action Gel - Toilet Bowl Cleaner - Country', 'Lysol Action Gel - Toilet Bowl Cleaner - Spring Waterfall', 'Lysol Advanced Deep Cleaning Toilet Bowl Cleaner', 'Lysol Advanced Toilet Bowl Cleaner', 'Lysol All Purpose Cleaner (All Scents)', 'Lysol All Purpose Cleaner - Apple Cleaning Action (Dilutable)', 'Lysol All Purpose Cleaner - Apple Cleaning Action (Trigger Spray)', 'Lysol All Purpose Cleaner - Orange Breeze Scent (Dilutable)', 'Lysol All Purpose Cleaner - Orange Fresh Scent (Trigger Spray)', 'Lysol All Purpose Cleaner - Trigger Spray', 'Lysol All Purpose Cleaner Brand New Day - Mandarin & Ginger Lily', and 'Lysol All Purpose Cleaner Brand New Day - Mango & Hibiscus'.

Product Code Search

NDC (National Drug Codes). The standard code format is 5-digits, 4-digits, 2-digits all separated by a dash (such as: 00220-9313-04).

CAS numbers (Chemical Abstracts Service). CAS registry numbers standard format is 2 to 6 digits, then 2-digits, followed by 1-digit all separated by a dash (such as: 361377-29-9)

DIN codes (Drug Identification Number). DIN numbers can be an 8-digit code, or 5-digits, then 4-digits, separated by a dash (example: 00004588, or 00002-6069).

EPA codes (Environmental Protection Agency codes). Type the code exactly (e.g., 1332-58-7, or 475-237, or 4-30-869).

AAPCC codes (American Association of Poison Control Centers codes). Type the code or the description related to the search term (e.g., 003000 or Anticholinergic Drugs (Excluding Cough and Cold Preparations, and Plants).

UPC codes (Universal Product Code). UPC numbers follow no standard format or layout. Be sure to type the code exactly, including spaces, letters, and dashes (for example: 0 49424 13610 0, or XN-1014-3526-3, or 38753 31590).

Other codes that can be searched are: PCP (Pest Control Product), CRN (California Registry Number), and Fertilizer Act.

1. Begin typing the code for the desired product. The word wheel appears as soon as one digit is typed, showing the first match to the digit(s) typed. As additional digits are typed, the result set narrows.
2. Type the entire code, or a partial code and scroll down the list. Click on the desired code to select it, then it will navigate you directly into the **Tox & Drug Product Lookup Results** page.

Tox & Drug Product Lookup

The screenshot shows a search interface with three tabs: "Products and Substances" (selected), "Martindale Global Drug", and "Company Contacts". Below the tabs is a search input field with a magnifying glass icon on the left and a close icon on the right. The input field contains the text "019337". Below the input field, a dropdown menu is open, displaying two search results: "019337 (AAPCC)" and "01933728 (DIN)".

Search Results

The information shown on the results page is the same as is shown by default for a Product or Substance Name search. See [“Tox & Drug Product Lookup Results” on page 240](#) for a full explanation. See [“Page View - Preview” on page 241](#) for more detailed information.

AAPCC Codes

The DRUGDEX and POISINDEX products databases can be searched using a code or the description as the search parameter.

AAPCC Code Definitions

Available by subscription, and primarily used by Poison Centers, subscribers can look up a product description by using the *Lookup Definitions* link, to search by code or by description.

The **AAPCC Codes Definitions Search** page will display the list of codes along with the description to perform the search function at ease.

Selecting an **AAPCC Code** copies the code to a clipboard allowing it to be pasted in search filter of Products and Substances tab within the Tox & Drug Product Lookup. Click on the desired AAPCC code to copy it and paste in Products and Substances tab to perform AAPCC search.


If you wish to search the code of a product using the description, you need to type the description of the code in the *Filter by AAPCC code or keyword* search box.

Code	Description
001000	Amphetamines and Related Compounds
001811	Unknown Stimulants or Street Drugs
002000	Other or Unknown Local and/or Topical Anesthetic
002720	Throat Lozenges with Local Anesthetics
003000	Anticholinergic Drugs (Excluding Cough and Cold Preparations, and Plants)
003720	Other Antihistamines Alone (Excluding Cough and Cold Preparations)
003830	Antispasmodics: Anticholinergic Containing
003920	Sleep Aids, Over the Counter Only (Excluding Diphenhydramine)
003921	Cyclobenzaprine
003922	Carisoprodol (Formulated Alone)
004000	Arsenic (Excluding Pesticides)
004562	Arsenic Pesticides
005000	Long Acting Barbiturates
006000	Short or Intermediate Acting Barbiturates

Scroll the List

You can review the entire list of codes and definitions by using the scrollbar.

Print the Codes

The complete list of codes and descriptions can be printed for reference. Simply click the Print icon  [Print](#) to send the printout to your local printer.

ProductID Search

Search by 7-digit product ID code.

Tox & Drug Product Lookup

Products and Substances
Martindale Global Drug
Company Contacts

Name or Code
▼

Q
53673
×

5367309 (PRODUCTID)

5367316 (PRODUCTID)

5367324 (PRODUCTID)

5367340 (PRODUCTID)

5367358 (PRODUCTID)

5367374 (PRODUCTID)

5367382 (PRODUCTID)

5367390 (PRODUCTID)

1. Begin typing the 7-digit Product ID for the desired product. The word wheel appears when one or more digits have been typed, showing the first match to the digit(s) entered. As additional digits are typed, the result set narrows.
2. Type the entire code or the partial product ID, scroll down the list and click to select. Once selected, it will navigate you directly into the **Tox & Drug Product Lookup Results** page.

A single product is returned in the result.

Tox & Drug Product / Substance Results

Name or Code
▼

Q
5367309 (PRODUCTID)
×

United States Other Countries
View page: Preview List

Name	Active Ingredient	Physical Description	Company	AAPCC
1. Plax Anti-Plaque Pre-Brushing Dental Rinse Peppermint	Sodium Benzoate - 2% w/w Sodium Lauryl Sulfate - 0.25% w/w Sodium Salicylate - 0.2% w/w	Solution clear blue	Pfizer Consumer Health Care	019337

Print

Plax Anti-Plaque Pre-Brushing Dental Rinse Peppermint

Micromedex Product ID
5367309 - 05/95

AAPCC
019337 - Mouthwashes:
Ethanol Containing

Toxicology Documentation

POISINDEX Managements

- SALICYLATES
- ETHANOL

Ingredients

The information shown on the results page is the same as is shown by default for a Product or Substance Name search. See [“Tox & Drug Product Lookup Results” on page 240](#) for a full explanation. See [“Page View - Preview” on page 241](#) for more detailed information.

Note: If you type a full or partial term and press enter instead of selecting anything from the displayed list, the search will do a *Product Name* search only by default even if the search term is *numeric/code*. So, to do a code search, it is necessary that we have to select a code from shown list.

LOOKUP PRODUCT / SUBSTANCE BY ACTIVE INGREDIENT

You can start your search by selecting the option in the scope filter. When the Scope Filter is chosen with the option **Active Ingredient**, then the **Placeholder Text** will show as **“Search for one active ingredient.”**

If you type the first letter or at least three characters of the **Active Ingredient** name, then the word wheel will populate with the list of active ingredient names related to the search term. On selection of a required active ingredient name from the populated list, you will be navigated to the **Tox & Drug Product Lookup Results** page & will be shown with the appropriate details. If no active ingredient names are found for the search term, then the word wheel will show a message **“Enter Search Term** You may submit a search with a partial term, or choose a suggestion based on your term entry.”

When you click the Enter key when the above message is shown, then you will be shown with the alternate search term suggestions. If you click the **Esc** key or click on anywhere else when word wheel population happens, then the word wheel will get disappear allowing the user to perform a new task.

Tox & Drug Product Lookup

The screenshot shows the 'Tox & Drug Product Lookup' interface. At the top, there are three tabs: 'Products and Substances' (selected), 'Martindale Global Drug', and 'Company Contacts'. Below the tabs, there is a search bar with the filter 'Active Ingredient' and a search term 'Bicyclic'. A dropdown menu displays the following search results:

- Bicyclic (C10/C12 Dimers Of C5/C6)
- Bicyclic Oxaboldines Solution
- Bicyclic Oxazolindines Solution
- Bicyclic Oxazoladone Solution
- BICYCLIC OXAZOLIDINE SOLUTION** (highlighted)
- Bicyclic Oxazolidines
- Bicyclic Oxazolidines Solution
- Bicyclic OxazolidineSolution
- BicyclicOxazolidine Solution

A tooltip for the highlighted item reads: 'BICYCLIC OXAZOLIDINE SOLUTION.'

TOX & DRUG PRODUCT LOOKUP RESULTS

Matches found for your search are displayed on the Tox & Drug Product Lookup Results page. Search results will provide the Generic section first, followed by Product and Discontinued results. Poison Center users can find additional information in "[Appendix D: Poison Center Integration](#)" on page 346.

Tox & Drug Product / Substance Results

Name or Code

×

View page:
📄 Preview
☰ List

United States
Other Countries

Print

Name	Active Ingredient	Physical Description	Company	AAPCC
1. Lysol	N-Alkyl Dimethyl Benzyl Ammonium Chloride - 1.3% Pine Oil - 9% Water - Less Than 89%	Oily Liquid Brown	Flinn Scientific	039282
2. Lysol Action Gel - Toilet Bowl Cleaner - Country	Oxalic Acid - 0.1 to 1% Quaternary Ammonium Compounds, Benzyl-C12-16 Alkyldimethyl, Chlorides - 0.1 to 1% Quaternary Ammonium Compounds, Di-C8-10-Alkyldimethyl, Chlorides - 0.1 to 1% ...	Clear Gel Liquid	Reckitt Benckiser	077309
3. Lysol Action Gel - Toilet	Oxalic Acid - 0.1 to 1%	Clear Gel Liquid	Reckitt	077309

Lysol

Micromedex Product ID
7282025 - 08/11

AAPCC
039282 - Disinfectants:
Pine Oil

Toxicology Documentation

POISINDEX Managements

- PINE OIL
- DETERGENTS-CATIONIC

Ingredients

Active Ingredients

- N-Alkyl Dimethyl Benzyl Ammonium Chloride - 1.3%
- Pine Oil - 9%
- Water - Less Than 89%

[Search similar products](#)

Feedback

Refine Search

If you are looking for a new search term, you can select the search filter. By selecting the search filter, you can refine your search by re-typing a new search term. You can start your search by typing a single character or the first few characters of the search term as discussed, the same in **SEARCHING BY PRODUCT OR SUBSTANCE NAME OR BY CODE** section.

The refine search functionality will refine and display the results based on the selection of the tabs. If you have selected **Products and Substances** tab in the search page the refine search results will be displayed related to Product and Substances search. If you have selected **Martindale Global Drug** tab or **Company Contacts** tab, the search results will be displayed related to Martindale Global Drugs or Company Contacts respectively.

United States and Other Countries Tab

In **Tox & Drug Product Lookup Results** page, you can view two tabs below the search filter. Products and substances are grouped into two categories: United States and Other Countries.

Items that fall into the United States category are shown first by default, but you can quickly change the results to products outside of the United States by clicking the Other Countries tab link shown to the right of the *United States* tab link.

If no products and substances are found for the Other Countries category, the link is disabled.

If no products and substance are found for the United States categories, the Other Countries search results are shown and the United States link is disabled.

Page View - Preview

You can view the **Tox & Drug Product Lookup Results** page using **Preview** and **List** view. **Preview** view will be the default layout for results page. You can change your view from Preview to List view by hovering your mouse over the Preview to List view link and click on the respective link to view the layout. The Preview layout will display within the session window seen by the browser even if you navigate your cursor to different tabs in the Micromedex Home page, for instance, if you go to **Drug ID** and then if you come back to the **Tox and Drug Product Lookup**, Preview layout will restore the last browser session window along with the same selections.

Tox & Drug Product / Substance Results

Name	Active Ingredient	Physical Description	Company	Country	AAPCC
1. Lysol Brand 4 in 1 Antibacterial Kitchen Cleaner (Trigger and Refill) - Citrus Scent	Benzalkonium Chloride 80% - Less Than or Equal to 0.05% Weight % Benzylkonium Chloride 50% - Less Than or Equal to 0.2% Weight % Lauryldimethamineoxide 30% - 1 to 5% Weight % ...	Clear Liquid	Reckitt Benckiser (Canada)	Canada	013000
2. Lysol Brand All Purpose Cleaner - All Scents	alkyl dimethyl benzyl ammonium chlorides - 0.8% by wt dialkyl (c8-10) dimethyl ammonium chlorides - 0.25% by wt diethylene glycol monobutyl ether - 5% by wt	Clear Liquid Fluorescent Green	Reckitt Benckiser (Canada)	Canada	077286
3. Lysol Brand All Purpose Cleaner - Orange Fresh Scent Trigger Spray	alkyl (c12-c16) dimethyl benzyl ammonium chlorides - Less Than 0.4% by wt dipropylene glycol n-butyl ether - 1% by wt	Clear Liquid Orange	Reckitt Benckiser (Canada)	Canada	014283

Lysol Brand 4 in 1 Antibacterial Kitchen Cleaner (Trigger and Refill) - Citrus Scent

Micromedex Product ID 6941474 - 03/09 **AAPCC** 013000 - Miscellaneous
Cleaning Agents: Anionics or Nonionics

Toxicology Documentation

POISINDEX Managements

- DETERGENTS AND SOAPS-ANIONIC AND NONIONIC
- DETERGENTS-CATIONIC

Ingredients

Active Ingredients

- Benzalkonium Chloride 80% - Less Than or Equal to 0.05% Weight %
- Benzylkonium Chloride 50% - Less Than or Equal to 0.2% Weight %
- Lauryldimethamineoxide 30% - 1 to 5% Weight %

[Show more \(1\)](#)
[Search similar products](#)

pH Level
10.5 to 11.1

Overview

Product information will be seen on the right-side panel displaying the associated POISINDEX & DRUGDEX product. To view the POISINDEX & DRUGDEX information related to the product, click the Name link of the desired product. The associated product page opens.

Show more (n) link will be shown under the Active Ingredients, Overview (Also Known As), Manufacture product codes (Product Number), Registry, Notes. if the product has more than three related information. For instance, if the product has more than three active ingredients, the **Show more (n)** link will be seen under the **Active Ingredients**. To view more active ingredients, click the **Show more (n)** link. On clicking this link, **Show fewer** link will be seen. If you would like to view fewer information associated within the product, click the **Show fewer** link. **(n)** - Represents the hidden number of active ingredients, associated within the product.

Information shown on the Product page may include: POISINDEX & DRUGDEX information, Ingredients (Active Ingredients, Excipients), Overview (Company, Country, Regulatory- Status, Container Size), Physical Description (Form, Color, Imprint, Imprint code Variation), Notes, Registry numbers, Company Contacts (Company, Address, Contact).

Page View - List

You can view the search results in list view by switching from *Preview* to *List* view in the **Tox & Drug Product Lookup Results** page. Click the **List** link seen right next to the *Preview* view to view the product in List view. **Show more ingredients (n)** link will be shown under the Active Ingredient, if the product is associated with more than three active ingredients. If the product has less than three active ingredients, **Show more ingredients (n)** link will not be seen. **(n)** - Represents the hidden number of active ingredients associated with the product.

Tox & Drug Product / Substance Results

Name or Code

United States Other Countries View page: [Preview](#) [List](#)

Name	Active Ingredient	Physical Description	Company	Country	Product ID	AAPCC	Related Documents
1. Lysol Brand 4 in 1 Antibacterial Kitchen Cleaner (Trigger and Refill) Citrus Scent	Benzalkonium Chloride 80% - Less Than or Equal to 0.05% Weight % Benzylkonium Chloride 50% - Less Than or Equal to 0.2% Weight % Lauryldimethamineoxide 30% - 1 to 5% Weight % Show more ingredients (1) Search similar products	Clear Liquid	Reckitt Benckiser (Canada)	Canada	6941474	013000	DETERGENTS AND SOAPS-ANIONIC AND NONIONIC - POISINDEX DETERGENTS-CATIONIC - POISINDEX
2. Lysol Brand All Purpose Cleaner - All Scents	alkyl dimethyl benzyl ammonium chlorides - 0.8% by wt dialkyl (c8-10) dimethyl ammonium chlorides - 0.8% by wt	Clear Liquid Fluorescent Green	Reckitt Benckiser (Canada)	Canada	6211059	077286	IRRITANTS - POISINDEX DETERGENTS-CATIONIC -

In List view POISINDEX, DRUGDEX information will be shown under the Related Documents column.

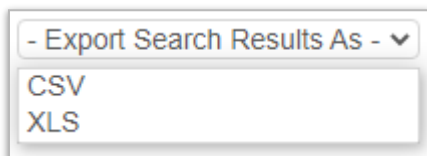
Modify Search

Modify Search option will be seen in the Tox & Drug Product Lookup Results page. When you want to change the search types (like Products and Substances, Martindale, Company Contacts) click the **Modify Search** button, it will take you to the Tox & Drug Product Lookup home page where you can select the preferred search types and enter the search term.



Exporting Search Results


Search results can be exported to a Microsoft® Excel® (.xls) file, or a Comma Separated Values (.csv) file. Select the file type that you want to save the results as from the drop-down menu. A dialog box appears that provides the ability to select the location to which you want to save the file.



Navigation Controls

Back to Top 

This icon will appear when you scroll down the results page. By clicking this icon, it scrolls up to the top of the current results page.

Page x of x 

The current page of the total number of pages is shown as Page x of x (i.e., Page 1 of 5). To move to the next page of results click the next page symbol button. To go back to the previous search results page, click the previous page symbol button.

Print  Print

The results page can be printed. Click the **Print** icon to print the current page.

ACTIVE INGREDIENTS

You can view the list of active ingredients under Active Ingredients column in the *List view* or under Ingredients - Active Ingredients in *Preview view*.

Show more ingredients (n) link will be shown under the Active Ingredient, if the product is associated with more than three active ingredients. If the product has less than three active ingredients, **Show more ingredients (n)** link will not be seen. **(n)** - Represents the hidden number of active ingredients associated with the product.


Tox & Drug Product / Substance Results

Name or Code

×

United States Other Countries
View page: Preview List

Name	Active Ingredient	Physical Description	Company	AAPCC
1. W & N Artist's Acrylic Colours - Antique Gold - CL Seal	2-Amino-2-Methyl-1-Propanol - Less Than or Equal to 0.53% 2-Methyl-Pyrrolidone - Less Than or Equal to 1.01% Ammonium Polycarboxylate - Less Than or Equal to 1.84% ...	Liquid Antique Gold	Colart International Holdings	077202

W And N Artist's Acrylic Colours - Antique Gold - CL Seal


Micromedex Product ID AAPCC
 7744447 - 05/13 077202 - Artist Paints (Non-Water Color)

Toxicology Documentation

POISINDEX Managements

- PAINT
- ACM/DUKE UNIVERSITY MEDICAL CENTER

Ingredients

Active Ingredients

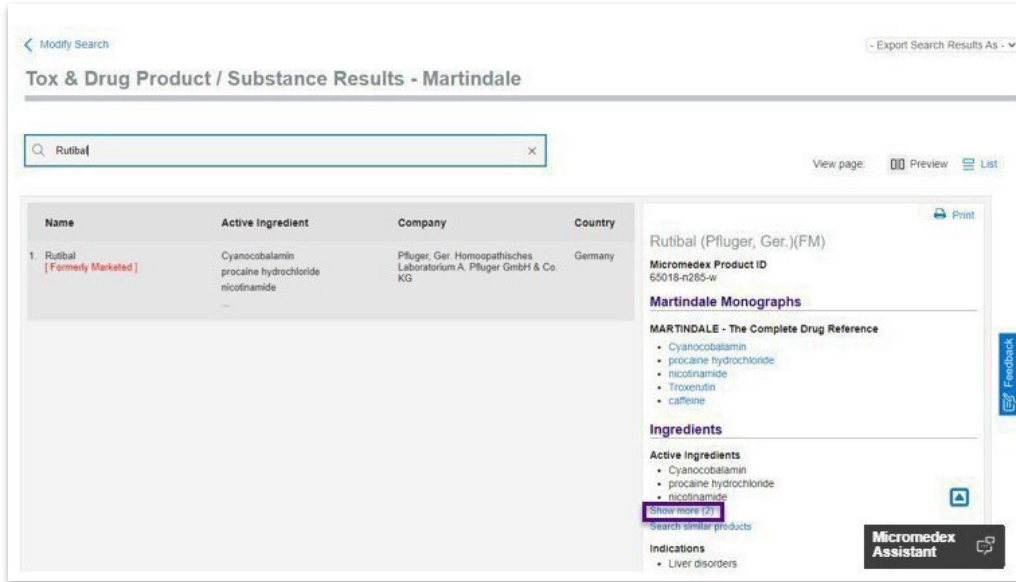
- 2-Amino-2-Methyl-1-Propanol - Less Than or Equal to 0.53%
- 2-Methyl-Pyrrolidone - Less Than or Equal to 1.01%
- Ammonium Polycarboxylate - Less Than or Equal to 1.84%

[Show more \(19\)](#)
[Search similar products](#)

MARTINDALE GLOBAL DRUG

Martindale Global Drug tab performs the same functionality as the Products and Substances tab.

Product information will be seen on the right-side panel displaying the associated Martindale Monographs product. To view the Monographs information related to the product, click the Name link of the desired product. The associated Martindale Monograph product page opens.



Show more (n) link and **Show fewer** link functionality remains the same as mentioned in **Preview View**. See [“Page View - Preview” on page 241](#) for more detailed information.

Information shown on the Product page may include: Martindale Monographs information, Micromedex Product ID, Name, Ingredients (Active Ingredients, Indications, Notes, Company Contacts (Name of the Company, Address, Related Documents links to the associated MARTINDALE monographs of the product.

COMPANY CONTACTS

Manufacturer Contact Info for a drug will be shown under this tab. You can type and perform a search function to find information related to manufacturer information.

Tox & Drug Company Contact Results page will display the information: Company, Address and Contacts.

The screenshot displays the 'Tox & Drug Company Contact Results' page. At the top, there is a search bar containing 'Unilever' and a 'Modify Search' link. Below the search bar is a table with the following data:

Company	Address	Contacts
1. Unilever	3100 Golf Road Rolling Meadows, IL 60008-4009	<p>Phone (800) 745-9696 Business Hours Chesebrough & Lever (Not Hair Care Or Deodorants)</p> <p>Phone (800) 782-8301 Business Hours Suave (Skin Care & Cleansing Only)</p> <p>Show more (14)</p>

At the bottom right of the table, there is a 'Micromedex Assistant' button. A vertical 'Feedback' button is located on the right side of the page.

Show more (n) link will be shown under the Contacts column if the company has more than three related contact information. To view more contact details, click the **Show more (n)** link. On clicking this link, **Show fewer** link will be seen. If you would like to view fewer contact information, click the **Show fewer** link. **(n)** - Represents the hidden number of contacts.

TOX & DRUG PRODUCT LOOKUP FEEDBACK

When using the product, users may occasionally wish to share or convey some information in the form of feedback to Micromedex. Users may quickly submit Feedback from the search or search results pages within **Tox & Drug Product Lookup** page.

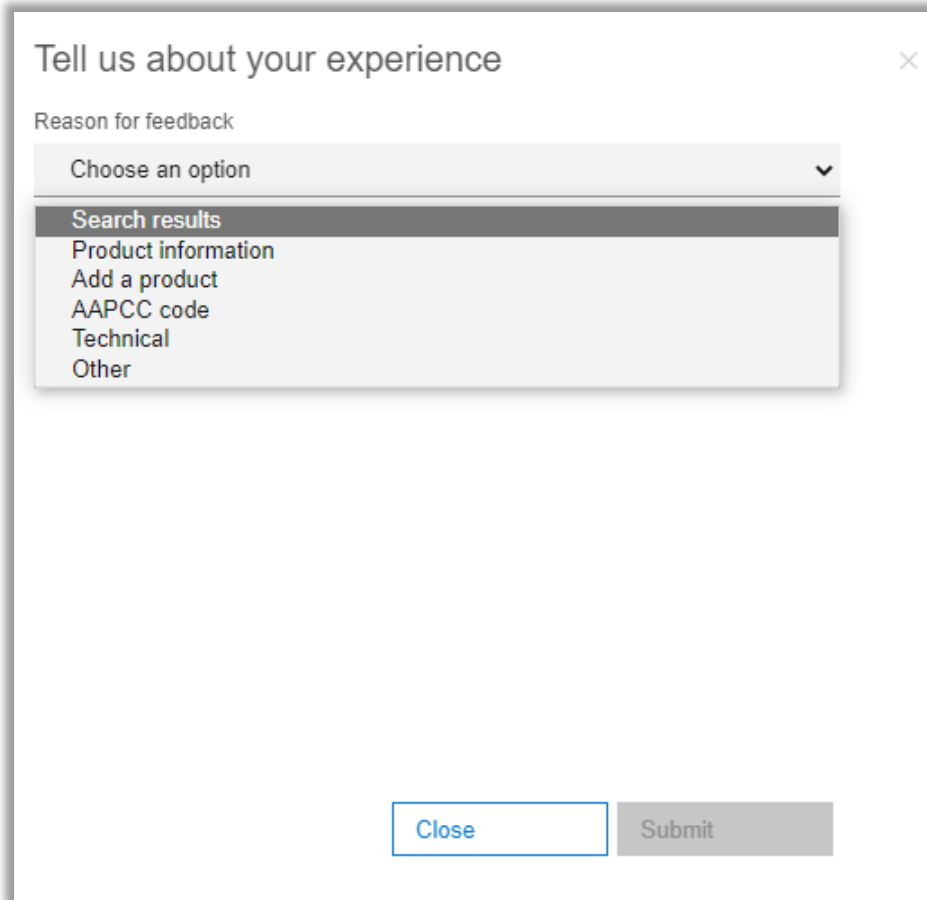
From the right-hand side panel of the **Tox & Drug Product Lookup Search** page, you can access the **Feedback** icon to share feedback. The submitted feedback will be shared with the Micromedex team. Feedback icon will also be shown in **Tox & Drug Product Lookup Search Results** page to make it easy for the user to enter the feedback.

The screenshot shows the 'Tox & Drug Product Lookup' page. At the top is a navigation bar with tabs: Home, Drug Interactions, IV Compatibility, Drug ID, Drug Comparison, CareNotes, NeoFax® / Pediatrics, **Tox & Drug Product Lookup**, and Other Tools. Below this is a sub-header 'Tox & Drug Product Lookup' and three main tabs: **Products and Substances**, Martindale Global Drug, and Company Contacts. A search bar is present with the text 'Name or Code' and a search icon. Below the search bar are two columns of search options:

- Search by Name**
 - Drug product name
 - Commercial/household product name or chemical
 - Substance including plant and animal scientific or common name
 - Slang terms/street names for drugs or substances
- Search by Code**
 - AAPCC code - [Lookup Definitions](#)
 - Micromedex product ID
 - National Drug Code (NDC)
 - Chemical Abstracts Service (CAS) number
 - Drug Identification Number (DIN - Canada)
 - Environmental Protection Agency (EPA) code
 - Universal Product Code (UPC)
 - Pest Control Product (PCP) code
 - California Registry Number (CRN)
 - Fertilizer Act

On the right side of the page, there is a vertical 'Feedback' icon.

A single click on the **Feedback** icon, opens a popup window related to feedback information. **Reason for feedback** drop-down displays a pre-defined list of six categories for feedback. Based on the selection of the category, the corresponding text fields will be displayed.



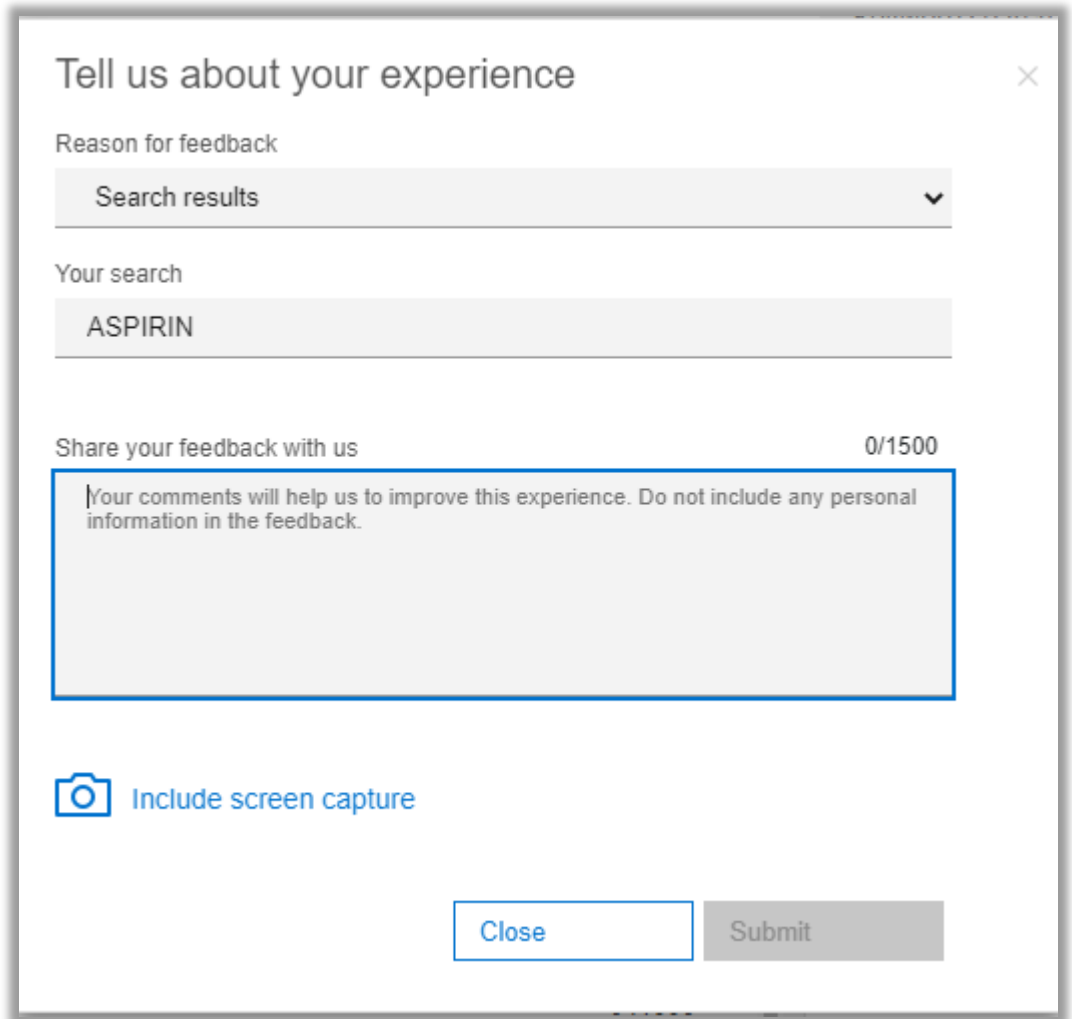
The screenshot shows a feedback popup window with the title "Tell us about your experience" and a close button (X) in the top right corner. Below the title, there is a label "Reason for feedback" above a dropdown menu. The dropdown menu is currently open, showing a list of options: "Choose an option" (with a downward arrow), "Search results", "Product information", "Add a product", "AAPCC code", "Technical", and "Other". At the bottom of the popup, there are two buttons: "Close" (with a blue border) and "Submit" (with a grey background).

The **"Share your feedback with us"** field is mandatory field for submitting a feedback. **Submit** button will be enabled only when you have entered at least one character in the field.

MICROMEDEX® - USER GUIDE

If the user selects the drop-down as **Search results**, the following fields will be displayed:

- **Your search** field will be auto generated and will be the same field as exactly what you have entered as drug name in **Enter search term** field as seen in **Tox & Drug Product Lookup Results** page. If you wish to change the drug name, you can go ahead and edit the drug name in the provided text field.
- **Share your feedback with us** - Enter the feedback you wish to share with the clinicians in the provided text area.



The screenshot shows a feedback form with the following elements:

- Title:** Tell us about your experience (with a close 'x' button in the top right corner).
- Reason for feedback:** A dropdown menu currently showing "Search results".
- Your search:** A text field containing the word "ASPIRIN".
- Share your feedback with us:** A section with a character count of "0/1500". Below this is a large text area containing the instruction: "Your comments will help us to improve this experience. Do not include any personal information in the feedback."
- Include screen capture:** A button with a camera icon and the text "Include screen capture".
- Buttons:** "Close" and "Submit" buttons at the bottom right.

If the user selects the drop-down as “**Product information**,” the following fields will be displayed:

- **Product** - Enter the product information in the text field.
- **Share your feedback with us** - Enter the feedback you wish to share with the clinicians in the provided text area.

Tell us about your experience ✕


Reason for feedback

Product information ▾

Product

Share your feedback with us 0/1500

Your comments will help us to improve this experience. Do not include any personal information in the feedback.

 [Include screen capture](#)

MICROMEDEX® - USER GUIDE

If the user selects the drop-down as **“Add a product,”** the following fields will be displayed:

- **Suggested product to add** - Enter the name of the product to be added in the provided text field.
- **Additional comments** - Enter the feedback you wish to share with the clinicians in the provided text area.

Tell us about your experience ×


Reason for feedback

Add a product ▼

Suggested product to add

Additional comments 0/1500

Your comments will help us to improve this experience. Do not include any personal information in the feedback.

 [Include screen capture](#)

If the user selects the drop-down as “**AAPCC code**,” the following fields will be displayed:

- **AAPCC code** - Enter the AAPCC in the provided text field.
- **Share your feedback with us** - Enter the feedback you wish to share with the clinicians in the provided text area.

Tell us about your experience ✕


Reason for feedback

AAPCC code ▾

AAPCC code

Share your feedback with us 0/1500

Your comments will help us to improve this experience. Do not include any personal information in the feedback.

 [Include screen capture](#)

MICROMEDEX® - USER GUIDE

If the user selects the drop-down as “**Technical**,” the following fields will be displayed:

- **Case Management system (if used)** - Enter the name of the case management system related to the technical queries that you are facing in the provided text field.
- **Share your feedback with us** - Enter the feedback that you wish to share with the clinicians in the provided text area.

Tell us about your experience ×

Reason for feedback


Technical ▾

Case management system (if used)

|

Share your feedback with us 0/1500

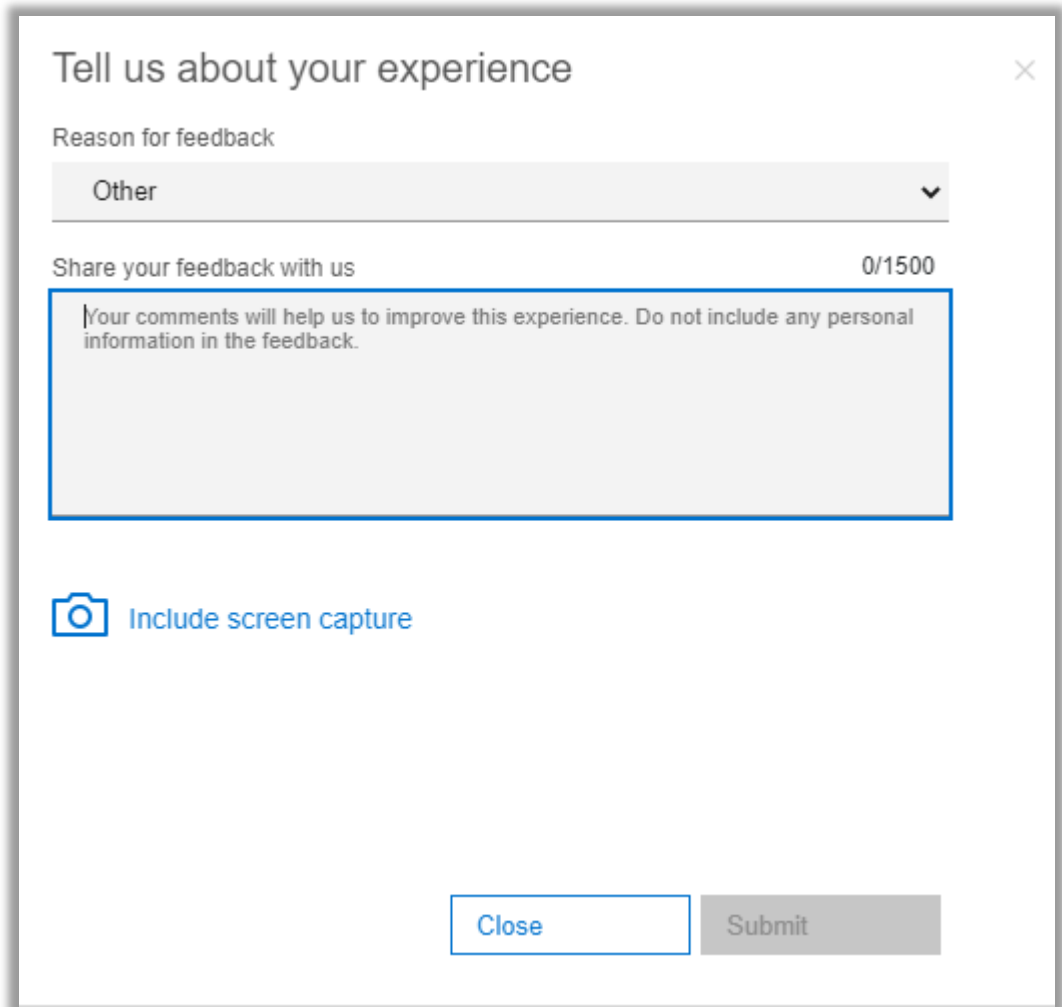
Your comments will help us to improve this experience. Do not include any personal information in the feedback.

 Include screen capture

Close Submit

If the user selects the drop-down as “**Other**,” the following field will be displayed:

- **Share your feedback with us** - Enter the feedback in the form of other information that you wish to share with the clinicians in the provided text area.



The screenshot shows a feedback form with the following elements:

- Title:** Tell us about your experience (with a close button 'x' in the top right corner).
- Reason for feedback:** A dropdown menu currently showing "Other".
- Character count:** "Share your feedback with us" followed by "0/1500".
- Text area:** A large text input field with a blue border. Inside, it contains the text: "Your comments will help us to improve this experience. Do not include any personal information in the feedback."
- Include screen capture:** A link with a camera icon and the text "Include screen capture".
- Buttons:** "Close" (blue outline) and "Submit" (grey background).

Click on **Include screen capture** link to capture the background screen of Tox & Drug Product Lookup application. The moment you have captured the screen, **Include screen capture** link is shown as **Screen captured** with a **green tick mark**.

The screenshot shows a feedback form with the following elements:

- Title:** Tell us about your experience (with a close button 'x' in the top right corner).
- Reason for feedback:** A dropdown menu currently showing 'Other'.
- Character count:** 'Share your feedback with us' followed by '0/1500'.
- Text area:** A large text input field containing the instruction: 'Your comments will help us to improve this experience. Do not include any personal information in the feedback.'
- Status:** A green checkmark icon followed by the text 'Screen captured'.
- Buttons:** Two buttons at the bottom right: 'Close' (outlined in blue) and 'Submit' (greyed out).

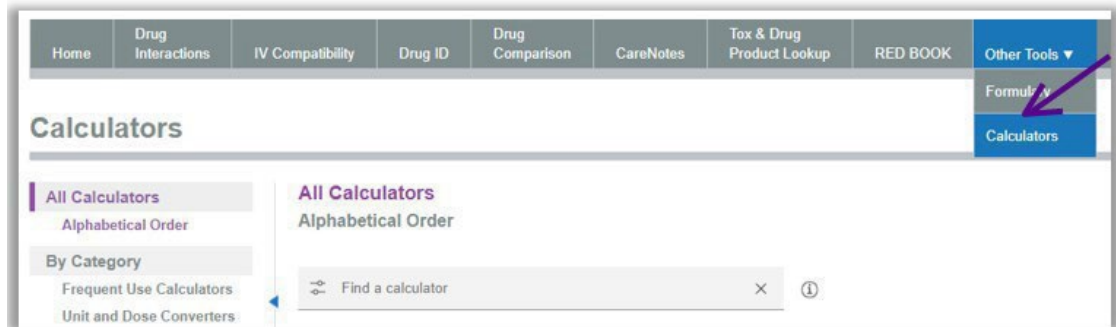
When you have completed the feedback, click on **Submit** button to share your feedback. Feedback will be reviewed by the Micromedex Solutions team. Quick fixes will be swiftly implemented, and more complex requests will be considered for future enhancements.

Note:

1. Text fields (Your search, Product, Suggested product to add, AAPCC code, Case management system (if used) & Other) is limited to 200 characters maximum.
2. Share your feedback with us text area is limited to 1500 characters maximum.
3. The Feedback module will be available only for Online Internet users and not to the Offline (THIAS) Intranet users.

CHAPTER 17: CALCULATORS

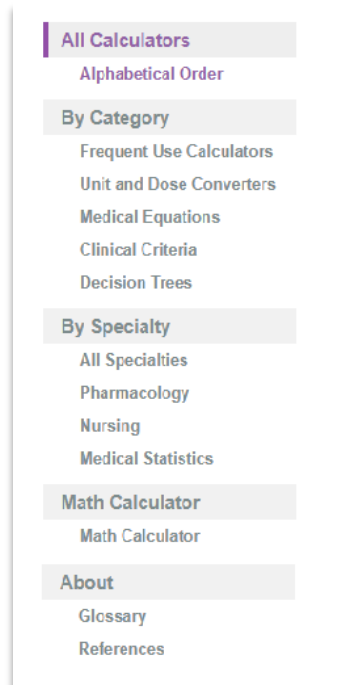
All of the core clinical calculators in Micromedex® can be found by clicking the **Calculators** toolbar option. Depending on your subscription, it may be visible in the toolbar or it may be under the **Other Tools** option.



The Calculator application home page is designed with different sections of calculators for enabling clinicians to search calculators based on their search criteria.

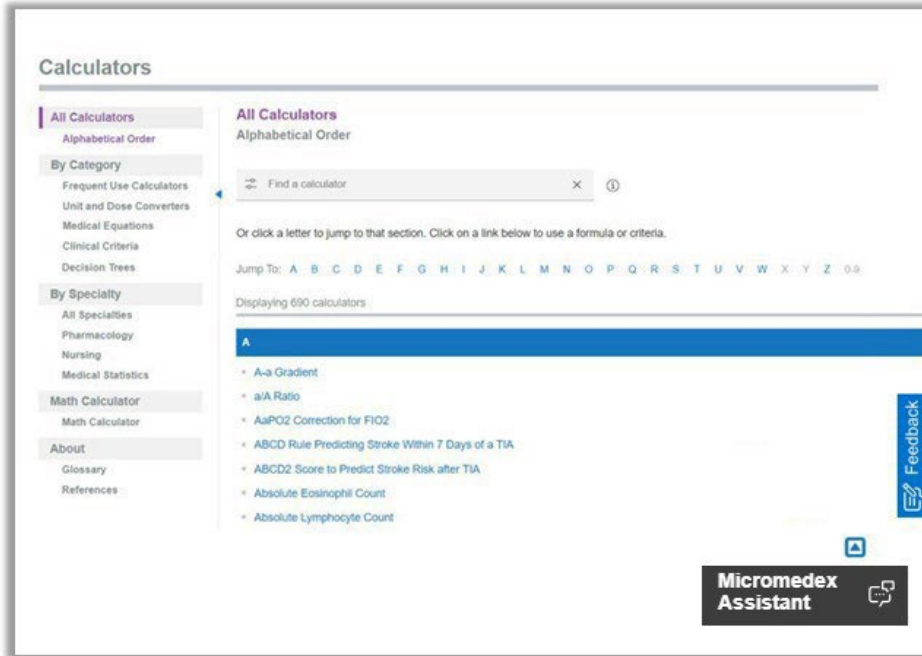
The different sections listed in the left panel are:

- All Calculators
- By Category
- By Specialty
- Math Calculator
- About

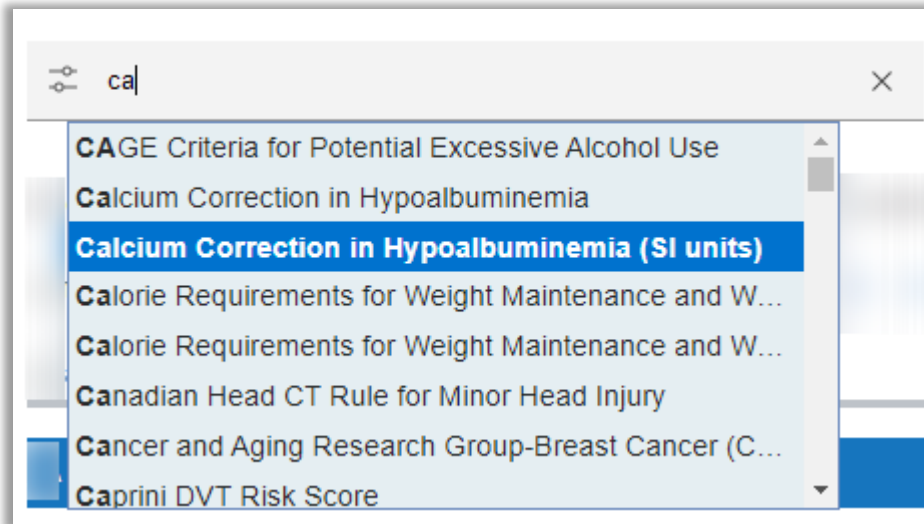


All Calculators

A full alphabetical list of calculators can be viewed under this section, click the **Alphabetical Order** link in the left panel. You can start your search by typing the first letter or few more letters of calculator name in the **Find a calculator** search field. The application will display the list of calculators in the form of drop-down list, scroll down the list, and click to select the required calculator.



The application will display the list of calculators in the form of drop-down list, scroll down the list and select the required calculator.



Once clicked, you will be navigated to the selected individual calculator page.

Calcium Correction in Hypoalbuminemia (SI units)

Input

Serum Ca: mmol/L ▼

Normal Albumin: 40 g/L
 44 g/L

Patient Albumin: g/L ▼

Result

Ca: mmol/L ▼

Decimal Precision: ▼

Notes

- The **Normal Albumin** parameter is set to 40 g/L.
- Some practitioners prefer 44 g/L as normal (see article 1 below.) Simply change the **Normal Albumin** value above and the page will recalculate instantly.

Equations used

$$\text{Ca} = \text{SerumCa} + 0.02 * (\text{NormalAlbumin} - \text{PatientAlbumin})$$

References

- Figge J, Jabor A, Kazda A, Fencl V. Anion gap and hypoalbuminemia. *Crit Care Med.* 1998 Nov;26(11):1807-10. [PubMed](#)
- Payne RB, Little AJ, Williams RB, Milner JR. Interpretation of serum calcium in patients with abnormal serum proteins. *Br Med J.* 1973 Dec 15;4(5893):643-6. [PubMed](#)
- Jassam N, Gopaul S, McShane P, et al. Calcium adjustment equations in neonates and children. *Ann Clin Biochem.* 2012; 49:352. [PubMed](#)

In the calculator page, enter the values in the respective text field or select the appropriate drop-down options in the input section to get the corresponding output in the result section. In some calculators, the number of digits to the right of decimal point in the output can be adjusted using the given **Decimal Precision** option.

The calculator page will also have Notes, Equations used, References, Legal Notices and Disclaimer sections.

- **Notes** - Brief, important points for aiding the operations performed in calculator are listed in the notes section.
- **Equations used** - Equation used in calculating the result will be displayed in the equation used section.
- **References** - All the citations and journals related for the calculator are shown in references section.

Back to Top



This icon will appear when you scroll down on any calculator page. On clicking this icon, it scrolls the current calculator page to the top.

Jump To

In this section, click on the letter link to see the calculator names that begins with the selected letter.

Click a letter to jump to that section. Click on a link below to use a formula or criteria.

Jump To: [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

By Category

Calculators are grouped into different categories and are arranged in this section. In the left side panel of calculators, under **By Category**, you can view the following sections.

The different sections are listed as shown below:

- Frequent Use Calculators
- Unit and Dose Converters
- Medical Equations
- Clinical Criteria
- Decision Trees

By Category

- Frequent Use Calculators
- Unit and Dose Converters
- Medical Equations
- Clinical Criteria
- Decision Trees

Click on each of the link to explore the various lists of calculators present in the category.

Frequent Use Calculators

The calculators that are frequently used in Micromedex are displayed in this section. Calculators are also grouped into logical areas to make them quick and easy to find.

By Category
Frequent Use Calculators

Antidote Dosing And Nomograms <ul style="list-style-type: none">Acetaminophen (Paracetamol) Toxicity AssessmentNAC Dosing for Acetaminophen OverdoseEthanol - IV Dosing Adjustment for Methanol/Ethylene Glycol Overdose	Dosing Tools <ul style="list-style-type: none">ACLS: Adult Emergency Drug Dosing CalculatorPALS: Pediatric Emergency Drug Dosing CalculatorHeparin Dosing CalculatorIV Drip Maintenance Rate CalculatorMaintenance Fluid Calculation for Children Based on Hourly Fluid RequirementsMaintenance fluid calculation for children based on daily fluid requirements	Clinical Calculators <ul style="list-style-type: none">A-a Gradienta/A RatioAnion Gap
Laboratory Values <ul style="list-style-type: none">Creatinine Clearance Estimate by Cockcroft-Gault EquationCreatinine Clearance Estimate by Cockcroft-Gault Equation (SI units)		Measurement Calculators <ul style="list-style-type: none">Body Mass Index (BMI) Quetelet's indexBody Mass Index (BMI) percentiles for boys (2 to 20 years)Body Mass Index (BMI) percentiles for girls (2 to 20 years)

Micromedex Assistant

Unit and Dose Converters

The calculators that perform unit and dosage related conversions are listed in this section.

The screenshot shows a web application interface. On the left is a navigation menu with the following items: 'All Calculators', 'Alphabetical Order', 'By Category' (highlighted), 'Frequent Use Calculators', 'Unit and Dose Converters' (highlighted), 'Medical Equations', 'Clinical Criteria', 'Decision Trees', 'By Specialty', 'All Specialties', 'Pharmacology', 'Nursing', 'Medical Statistics', 'Math Calculator', and 'Math Calculator'. The main content area is titled 'By Category' and 'Unit and Dose Converters'. It contains the instruction 'Click a letter to jump to that section. Click on a link below to use a formula or criteria.' Below this is a 'Jump To:' row with letters A through Z. The letter 'B' is highlighted in blue, and below it is a link for 'Benzodiazepine Dosing Conversions'. The letter 'C' is also highlighted in blue, and below it is a link for 'Conventional unit to SI unit conversions: Chemistry tests'.

The screenshot shows the 'Benzodiazepine Dosing Conversions' calculator interface. It features a title 'Benzodiazepine Dosing Conversions' at the top. Below the title is a form with the following elements: 'FROM:' with an input field and a 'Pull-Down' menu; 'TO:' with an input field and a 'Pull-Down' menu; and 'Set maximal display precision in decimal points:' with a dropdown menu set to '1'.

Medical Equations

All calculators related to the medical equations are displayed in this section.

The screenshot displays the 'Medical Equations' section of the Micromedex website. On the left is a navigation menu with categories: 'All Calculators' (Alphabetical Order), 'By Category' (Frequent Use Calculators, Unit and Dose Converters, Medical Equations, Clinical Criteria, Decision Trees), 'By Specialty' (All Specialties, Pharmacology, Nursing, Medical Statistics), 'Math Calculator' (Math Calculator), and 'About' (Glossary, References). The 'Medical Equations' category is selected. The main content area is titled 'By Category Medical Equations' and includes a 'Jump To:' navigation bar with letters A through Z. Below this, a blue bar highlights the letter 'A', and a list of equations follows, including 'A-a Gradient', 'a/A Ratio', 'AaPO2 Correction for FIO2', and various absolute counts and dosing calculators.

All Calculators
Alphabetical Order

By Category
Frequent Use Calculators
Unit and Dose Converters
Medical Equations
Clinical Criteria
Decision Trees

By Specialty
All Specialties
Pharmacology
Nursing
Medical Statistics

Math Calculator
Math Calculator

About
Glossary
References

By Category
Medical Equations

Click a letter to jump to that section. Click on a link below to use a formula or criteria.

Jump To: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

A

- A-a Gradient
- a/A Ratio
- AaPO2 Correction for FIO2
- Absolute Eosinophil Count
- Absolute Lymphocyte Count
- Absolute Neutrophil Count
- Absolute Phagocyte Count
- Absolute Reticulocyte Count
- ACLS: Adult Emergency Drug Dosing Calculator
- Acute Heart Failure Prediction Based on NT-proBNP and Clinical Features
- Adjusted Cerebrospinal Fluid White Blood Cell Count in the Presence of Red Blood Cells
- Albumin-bilirubin (ALBI) grade estimate of survival of adults with hepatocellular carcinoma (conventional and SI units)
- Allowable Blood Loss
- Amikacin Dosing to Produce Desired Peak and Trough Levels
- Amikacin Level Prediction from Maintenance Dosing
- Amikacin Steady State Dosage Adjustment
- Aminoglycoside Clearance Estimate
- Anion Gap Delta Delta Gradient Multicalc
- Anion Gap Delta Delta Ratio Multicalc
- Anion Gap in Hypoalbumin States
- Anion Gap
- Ascites Albumin Gradient

Clinical Criteria

All calculators related to clinical criteria are present in this section.

All Calculators
 Alphabetical Order

By Category
 Frequent Use Calculators
 Unit and Dose Converters
 Medical Equations
Clinical Criteria
 Decision Trees

By Specialty
 All Specialties
 Pharmacology
 Nursing
 Medical Statistics

Math Calculator
 Math Calculator

About
 Glossary
 References

By Category
Clinical Criteria

Click a letter to jump to that section. Click on a link below to use a formula or criteria.

Jump To: [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

A

- [ABCD Rule Predicting Stroke Within 7 Days of a TIA](#)
- [ABCD2 Score to Predict Stroke Risk after TIA](#)
- [Acetaminophen \(Paracetamol\) Toxicity Assessment](#)
- [ACR/EULAR Rheumatoid Arthritis Diagnostic Criteria \(2010\)](#)
- [Activity Score for Nursing Home Patients](#)
- [Alcohol Consumption Screening AUDIT Questionnaire](#)
- [Alcoholic Liver Disease: Criteria for One Year Mortality Prognosis](#)
- [Androgen Deficiency in Aging Males \(ADAM\) Screener](#)
- [APACHE II Scoring System by Diagnosis](#)
- [APACHE II Scoring System](#)
- [Apgar Score](#)
- [Atrial Fibrillation and Arterial Thromboembolism Risk](#)
- [Atrial Fibrillation CHA\(2\)DS\(2\)-VASc Score for Stroke Risk](#)
- [Atrial Fibrillation CHADS\(2\) Score for Stroke Risk](#)
- [Atrial Fibrillation Five Year Risk of Stroke or Death](#)
- [Atrial Fibrillation Five-Year Risk of Stroke](#)
- [Autoimmune Hepatitis Diagnostic Criteria](#)

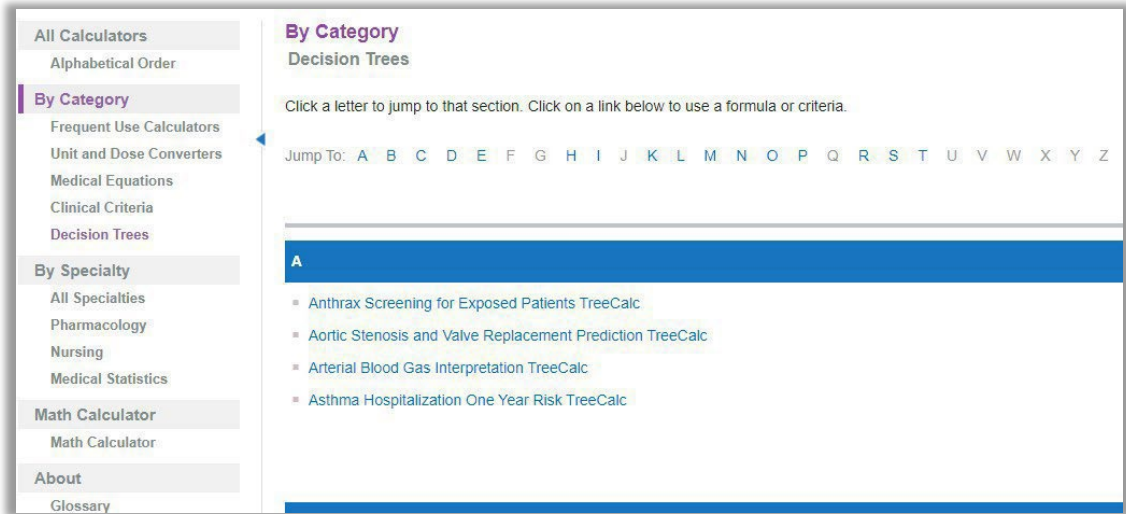
B

- [Bacterial Meningitis Score for Children](#)

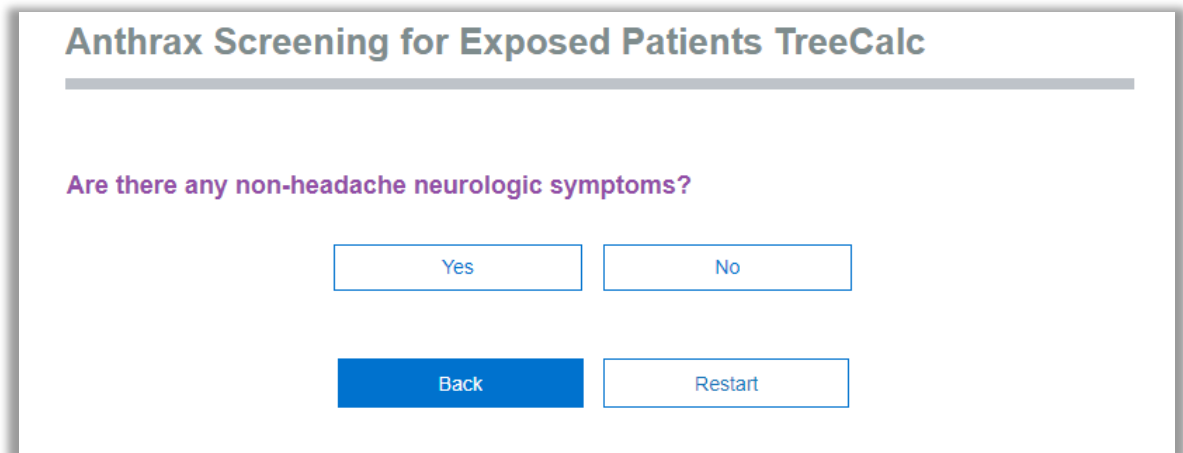
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Decision Trees

Access **Decision Trees** calculators via the link on the left side panel of the calculator home page.



Users must answer various sequences of questions in these calculators to get their desired result.



By Specialty

In this section, find calculators tailored to a variety of different medical specialties.

By Specialty
Search EBMcalc by Specialty

- Anesthesiology
- Anthropometrics
- Cardiology
- COVID-19
- Critical Care
- Dermatology
- Emergency Medicine
- Endocrinology
- Epidemiology
- Gastroenterology
- Geriatrics
- Hematology
- Infectious Disease
- International Health
- Medical Statistics
- Nephrology
- Neurology
- Nursing
- Nutrition
- Oncology
- Orthopedics
- Pain Management
- Patient Use
- Pediatrics
- Pharmacology
- Physical Medicine & Rehabilitation
- Psychiatry
- Pulmonology
- Rheumatology
- Smoking Cessation
- Surgery
- Women's Health
- Workers' Compensation

This section will display all the available specialties in alphabetical order. Click on each of the specialties to explore the various lists of calculators present in each specialty. Three of the specialties, Pharmacology, Nursing and Medical Statistics are quickly accessible from the left panel **By Specialty** menu itself.

Math Calculator

This calculator can be used to perform mathematical calculations.

Math Calculator

Options: Common RPN Degrees Radians

Display precision in decimal points:

Registers

1	2	3	+	T: 0
4	5	6	-	Z: 0
7	8	9	X	Y: 0
0	.	<-	/	X: 0

This calculator uses either *Common* or *Reverse Polish Notation* (similar to HP calculators.) The X register holds your answer when the calculation is complete. To add 1 + 2 in RPN style, click "1" then hit "ENTER", then "2", then "+"

About

All the Acronyms, Abbreviations and Initialisms used in the calculators are displayed in **Glossary** section.

About	
Glossary of Acronyms, Abbreviations and Initialisms in MC3K	
AACE	American Association of Clinical Endocrinologists
AaG	Alveolar-arterial gradient
aAR	Alveolar-arterial ratio
Abd	Abdominal
Acc	Accuracy
ADL	Activities of daily living
AFib	Atrial fibrillation
AgCl	Aminoglycoside clearance
AG	Anion gap

Literature References to Books, Chapters, and Journals from all calculators are listed in the **References** section. You can also search for a reference using the search functionality in this page.

About

EBMcalc Literature References to Books, Chapters, and Journals

Legend

- Show or hide associated calculators and MeSH terms with these graphics:
- LCCN is a Library of Congress identifier linked to this graphic:

CHAPTER 18: MICROMEDEX® RED BOOK®

Introduction to Micromedex® REDBOOK®

Micromedex® RED BOOK® is the essential resource healthcare professionals reach for every day to find the latest drug product pricing and packaging information on prescription and over-the-counter drug products.

By providing all of the drug product pricing and packaging data you need in one source, RED BOOK simplifies the identification, analysis, and comparison of drug and non-drug items. RED BOOK supports formulary management, cost containment, and drug utilization review, and provides consistent and unbiased Average Wholesale Price (AWP) pricing information for brand name and generic drugs. [See “Average Wholesale Price \(AWP\) Policy” on page 338](#) for more information on the Micromedex AWP policy.

RED BOOK provides:

- Drug pricing and product information for more than 200,000 active and deactivated drugs
- An intuitive online user interface
- Daily updates to provide the most up-to-date information
- Notification of new pricing information
- Available via the Micromedex® interface which can provide access to a broad range of clinical decision support tools available from Micromedex .

Searching Micromedex® RED BOOK® Online

To begin using RED BOOK, you must first log into the application. Navigate to the URL through which you access RED BOOK and log in.

The options displayed on the toolbar will vary depending upon your Micromedex subscriptions. RED BOOK may be visible in the toolbar or it may be under the Other Tools option.

Click the **RED BOOK** toolbar item.

The *RED BOOK Search* page displays.

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The screenshot shows the Merative Micromedex RED BOOK search page. At the top, there is a navigation bar with links for Home, Drug Interactions, IV Compatibility, Drug ID, Drug Comparison, CareNotes, Tox & Drug Product Lookup, RED BOOK (highlighted with a purple box), and Other Tools. Below the navigation bar, the page title is "Merative Micromedex® RED BOOK®" and there is a link to "Go to Custom List Manager". A search instruction reads: "Search for prescription or over the counter medications, nutraceuticals, bulk chemicals, medical devices or supplies by product name or manufacturer. Search for a specific active ingredient in the product or by a specific code (such as NDC, UPC, or HRI)." The search section includes a "I want to search by..." section with radio buttons for Product Name (selected), Active Ingredient, NDC/HRI/UPC, and Manufacturer Name. Below this is a "I want to filter by..." section with radio buttons for Status (Active selected, Deactivated, All) and Repackagers (Include Repackagers, Exclude Repackagers selected). A search input field labeled "Enter search term:" is followed by a "Submit" button. On the right side, there is a vertical "Feedback" button and a "Micromedex Assistant" icon.

From the *RED BOOK Search* page, you can search by:

- Product Name
- Active Ingredient
- NDC/HRI/UPC Code
- Manufacturer Name

You can also filter your search by status and repackagers. [See “Filters” on page 269.](#) for more information.

Note: NDC, HRI, and UPC codes are displayed in two formats within RED BOOK. When performing a search by code, the search box displays the code in a 5-4-2 format (e.g., 12345-6789-00) for an NDC, HRI, or UPC code. When an HRI or UPC code is selected from the search box, the code is displayed in a 5-6 format (e.g., 12345-678900). The identifying code has not changed, only the format has changed, as shown below.

The 5-4-2 format is used in the search suggestion box, but once selected, HRI and UPC codes are displayed in a 5-6 format.

Enter search term:
00205-000090 [x] [Submit]

00205-0000-90 THERAREST (KCI)

On the *RED BOOK Search Results* page and *Product Details* pop-up box, NDC codes are displayed in the 5-4-2 format. HRI and UPC codes are displayed in the 5-6 format.

Search Options

Next, enter the search term you want to use. For the purposes of this guide, the Product Name search will be used in conjunction with the search term *Rizatriptan Benzoate*.

Begin typing in the *Enter search term:* field. As you enter characters into the field, the application makes suggestions based on the characters entered, as shown below.

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I want to search by...

- Product Name
- Active Ingredient
- NDC/HRI/UPC
- Manufacturer Name

I want to filter by...

Status:

- Active
- Deactivated
- All

Repackagers:

- Include Repackagers
- Exclude Repackagers

Enter search term:

- RI-MAG
- RI-MAG PLUS
- RIB BELT UNIVERSAL
- RIBASPHERE
- RIBAVIRIN
- RIBO-100
- RIBOFLAVIN
- RIBOFLAVINE SODIUM PHOSPHATE
- RIBONUCLEIC ACID
- RIBONUCLEIC ACID W/DNA
- RICE PROTEIN
- RICE STARCH
- RID
- RID ADVANCED REMOVAL SYSTEM

The more characters you enter, the more focused the application-based suggestions will be. Highlight the term in the suggestion list on which you want to search and click the **Submit** button.

Note: The **Submit** button will be inactive until a search term is selected from the suggestion list.

I want to search by...

- Product Name
- Active Ingredient
- NDC/HRI/UPC
- Manufacturer Name

I want to filter by...

Status:

- Active
- Deactivated
- All

Repackagers:

- Include Repackagers
- Exclude Repackagers

Enter search term:

- RIZATRIPTAN BENZOATE

Note: If you receive a message when performing a search that no results matched the term and options selected, try adjusting your filters (Active/Deactivated/All or Include/Exclude Repackagers) to see if your search returns different results.

Filters

By default, the "active" filter option will be selected when searching by product name and active ingredient. Active drugs are those that are currently marketed while deactivated drugs are not currently marketed.

The "Exclude Repackagers" option will be selected by default when searching by Product Name or Active Ingredient. Repackagers can be included in the search by selecting the corresponding radio button.

Filter options are not available when searching by Manufacturer or NDC/HRI/UPC.

Understanding Micromedex® RED BOOK® Search Results

The search results page displays detailed information about your search query. An example search with multiple results is shown below.

RED BOOK Search Results ← Modify Search

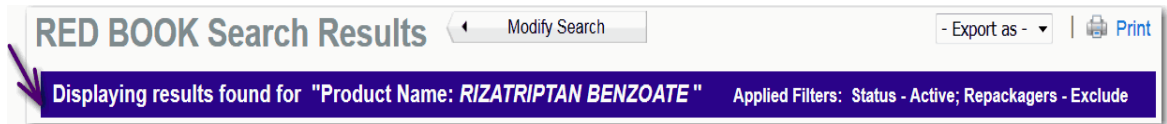
Displaying results found for "Product Name: *RIZATRIPTAN BENZOATE* " Applied Filters: Exclude

Results 1 - 50 of 76

Details	Price Chg	New Pkg	Product Name	Active Ingredient	Manufacturer/Distributor	Rpkg	Generic	Orange Book Code	Code Type	Identifier	Form	Strength
<input type="checkbox"/>			RIZATRIPTAN BENZOATE	rizatriptan benzoate	APOTEX CORP.	N	Y	AB	NDC	60505-3698-01	TAB	5 mg
<input type="checkbox"/>			RIZATRIPTAN BENZOATE	rizatriptan benzoate	APOTEX CORP.	N	Y	AB	NDC	60505-3723-01	ODT	5 mg
<input type="checkbox"/>			RIZATRIPTAN BENZOATE	rizatriptan benzoate	APOTEX CORP.	N	Y	AB	NDC	60505-3724-01	ODT	10 mg
<input type="checkbox"/>			RIZATRIPTAN BENZOATE	rizatriptan benzoate	APOTEX CORP.	N	Y	AB	NDC	60505-3699-01	TAB	10 mg
<input type="checkbox"/>			RIZATRIPTAN BENZOATE	rizatriptan benzoate	ASCEND LABORATORIES	N	Y	AB	NDC	67977-0261-25	TAB	5 mg

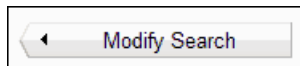
Results are displayed in rows, with links to additional information. Data can be re-sorted by most of the column headings.

Search Results Header



At the top of the search results is the search header information. Moving from left to right, the first item displayed is the page title (*RED BOOK Search Results*).

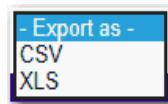
Adjacent to the title is the **Modify Search** button.



Click the **Modify Search** button to return to the RED BOOK search tool and modify your search, or perform a new search either by typing in a new search term or by changing your filter options.

Exporting Search Results

Search results can be exported to a Microsoft® Excel® (.xls) file, or a Comma Separated Values (.csv) file. Select the file type that you want to save the results as from the drop-down menu. A dialog box appears that provides the ability to select the location to which you want to save the file.



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Printing Search Results

On the right side of the page is the **Print** icon. Clicking the **Print** icon launches the Windows® Print dialog window and allows you to print your RED BOOK search results.



Additional Search Results Information

Below the search results header is the number of results returned for this particular search. In the example shown here, 104 results were found and results 1-50 are displayed on the first page.



On the right side of the page, the number of pages within the search result are displayed.



For this example, page 1 of 2 is being displayed. When the search results contain multiple pages, you can use the **Previous** and **Next** links to page through the search results, or you can enter a page number in the **Page** box and click **GO** to move directly to that page of the results.

Column Headings


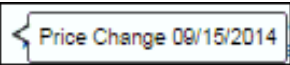

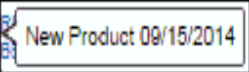
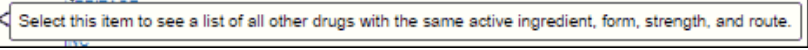
Details	Price Chg	New Pkg	Product Name	Active Ingredient	Manufacturer/Distributor	Rpkg	Generic	Orange Book Code	Code Type	Identifier	Form	Strength	Route	Pkg Size	Unit Dose	WAC Pkg Price	AWP Pkg Price	AWP Unit Price
<input type="checkbox"/>	\$	★	RIZATRIPTAN BENZOATE	rizatriptan benzoate	HERITAGE PHARMACEUTICALS INC	N	Y	AB	NDC	23155-0245-45	TAB	10 mg	ORAL	18s ea	Y	26.93	598.55	33.25278
<input type="checkbox"/>	\$	★	RIZATRIPTAN BENZOATE	rizatriptan benzoate	HERITAGE PHARMACEUTICALS INC	N	Y	AB	NDC	23155-0244-45	TAB	5 mg	ORAL	18s ea	Y	26.93	598.55	33.25278
<input type="checkbox"/>			RIZATRIPTAN BENZOATE	rizatriptan benzoate	A-S MEDICATION SOLUTIONS LLC	Y	Y	EE	NDC	54569-6404-00	TAB	10 mg	ORAL	18s ea	N	--	612.52	34.02859
<input type="checkbox"/>			RIZATRIPTAN BENZOATE	rizatriptan benzoate	APOTEX CORP.	N	Y	EE	NDC	60505-3699-01	TAB	10 mg	ORAL	18s ea	Y	149.64	598.55	33.25278

All columns with headings in blue can be sorted in ascending or descending order. Click on the column heading to sort on the column. The display refreshes based on the sort selection with a secondary sort on product name. Click again to reverse the sort order.

The various column headings/items and their function are described in the following table:

Columns on the RED BOOK Search Results

Column Name	Description
Details Button	The Details button is related to the checkboxes that correspond to each line item in the search results. Clicking the checkbox for either a single or for multiple products and then clicking the Details button launches the <i>Product Details</i> pop-up box. The <i>Product Details</i> pop-up provides detailed information for the product(s) selected. See “Product Details Search Results” on page 279 for more information.

Column Name	Description
<p>Price Chg</p>	<p>The Price Chg (price change) column indicates if the selected product has had a price change that is effective within the last 30 days of the date the search was performed.</p> <p> If a price change has occurred within this time window, a dollar sign icon displays. Hovering the cursor over the icon displays the effective date of the price change.</p> 
<p>New Pkg</p>	<p>The New Pkg column indicates if the product on which you searched is a new entry in the RED BOOK database that became effective within the previous 30 days of the date the search was performed.</p> <p> New entries in the database are indicated by a star icon in this column. Hovering the cursor over the icon displays the effective date of the new entry.</p> 
<p>Product Name</p>	<p>The Product Name column displays the name of all the individual products retrieved by your search. You can click the column header to sort the search results by this column.</p>
<p>Active Ingredient</p>	<p>The Active Ingredient column displays the active ingredient(s) for the product for which you searched. You can click the name of the active ingredient to view other products that contain the same active ingredient, strength, form, and route (See “Searching for Similar Products in Micromedex® RED BOOK® Online” on page 274. for more information). Hovering the mouse over the name of the active ingredient displays the information you can view by clicking the link.</p>  <p>If a product contains more than one active ingredient and you click the name of the active ingredients link, RED BOOK will search for other products containing all of the active ingredients specified. If you want to search for other products that contain just one of the active ingredients listed, return to the search page and perform an active ingredient search on that one item.</p>
<p>Manufacturer/ Distributor</p>	<p>The Manufacturer/Distributor column displays the manufacturer/distributor of an individual product in your search results. A single product name can be associated with multiple manufacturers/distributors.</p>
<p>Rpkg</p>	<p>The Rpkg column indicates whether or not the product is repackaged by the company listed as the manufacturer/distributor. A " Y" indicates that the listed manufacturer/distributor is a repackager of the product. An " N" indicates that the listed manufacturer/distributor is not a repackager.</p>

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Column Name	Description
Generic	The Generic column indicates whether or not the particular line item is a generic product. A "Y" indicates that the product is a generic version. An "N" indicates that the product is not a generic product.
Orange Book Code	If a product has a corresponding Orange Book Code, that code will appear in the Orange Book Code column. Not all products will have an associated Orange Book Code. When there is no associated Orange Book Code, two dashes (--) will appear in the column. See "Orange Book Codes" on page 344. for more information.
Code Type	The Code Type column identifies the registry listed for the identifier, either NDC; HRI; or UPC. This code type is related to the value that appears in the Identifier column.
Identifier	The Identifier column displays the NDC, HRI, or UPC code that is associated with the item for which you searched.
Form	The Form column displays the dosage form (tablet, solution, syrup, etc.) of a product.
Strength	The Strength column displays the active ingredient strength for the product for which you searched. The Strength column is limited to 24 characters. Entries in this field that exceed 24 characters are truncated. A longer description can be viewed on the <i>Product Details</i> page.
Route	The Route column displays the route of administration for the product. See "Route Listing" on page 343. for more information.
Pkg Size	The Pkg (package) column displays the quantity of individual items in the package. This quantity is expressed in National Council for Prescription Drug Programs (NCPDP) units (each, grams, milliliters).
Unit Dose	The Unit Dose column indicates if the product retrieved in your search is available in unit dose packaging. A "Y" indicates that the product is available in unit dose packaging. An "N" indicates that the product is not available in unit dose packaging.
WAC Pkg Price	The WAC Pkg Price column displays the Wholesale Acquisition Cost of the package.
AWP Pkg Price	The AWP Pkg Price column displays the Average Wholesale Price per package.
AWP Unit Price	The AWP Unit Price column displays the Average Wholesale Price per unit. See "Unit Price Calculations" on page 339. for information on how unit prices are calculated.

Note: The default sort order for search results is by the Product Name and then Manufacturer columns. If you sort the results by a different column, Product and Manufacturer become the second and third sort criteria.

Columns for which no data is returned will contain two dashes (--).

Searching for Similar Products in Micromedex® RED BOOK® Online

From the *RED BOOK Search Results* page, you can perform a secondary query to locate products that contain the same active ingredient(s), in the same strength, form, and route, as a product on which you have already retrieved your primary search. Searching for similar products can be performed from any RED BOOK search results page that displays the **Active Ingredient** column.

For this example, a product search for *Children's Benadryl Allergy* has been performed. The **Active** filter and the **Include Repackagers** radio button have been selected. The results displayed are similar to the following:

Displaying results found for "Product Name: CHILDREN'S BENADRYL ALLERGY" Applied Filters: Status - Active; Repackagers - Include

Results 1 - 6 of 6 Page 1 of 1 Go | Previous | Next

Details	Price Chg	New Pkg	Product Name	Active Ingredient	Manufacturer/Distributor	Rpkg	Generic	Orange Book Code	Code Type	Identifier	Form	Strength	Route	Pkg Size	Unit Dose	WAC Pkg Price	AWP Pkg Price	AWP Unit Price
<input type="checkbox"/>			CHILDREN'S BENADRYL ALLERGY	diphenhydramine hydrochloride	MCNEIL CONSUMER HEALTHCARE DIV	N	N	--	NDC	50580-0535-04	SOL	12.5 mg/5 ml	ORAL	118 ml	N	4.33	5.20	0.04407
<input type="checkbox"/>			CHILDREN'S BENADRYL ALLERGY	diphenhydramine hydrochloride	MCNEIL CONSUMER HEALTHCARE DIV	N	N	--	UPC	00450-018018	ODT	12.5 mg	ORAL	18s ea	N	4.33	5.20	0.28889
<input type="checkbox"/>			CHILDREN'S BENADRYL ALLERGY	diphenhydramine hydrochloride	MCNEIL CONSUMER HEALTHCARE DIV	N	N	--	NDC	00501-2049-10	SYR	12.5 mg/5 ml	ORAL	5 ml 10s	N	4.33	5.20	0.10400
<input type="checkbox"/>			CHILDREN'S BENADRYL ALLERGY	diphenhydramine hydrochloride	MCNEIL CONSUMER HEALTHCARE DIV	N	N	--	NDC	50580-0534-08	SYR	12.5 mg/5 ml	ORAL	236 ml	N	6.79	8.15	0.03453
<input type="checkbox"/>			CHILDREN'S BENADRYL ALLERGY	diphenhydramine hydrochloride	MCNEIL CONSUMER HEALTHCARE DIV	N	N	--	NDC	50580-0534-04	SYR	12.5 mg/5 ml	ORAL	118 ml	N	4.38	5.26	0.04458
<input type="checkbox"/>			CHILDREN'S BENADRYL ALLERGY	diphenhydramine hydrochloride	MCNEIL CONSUMER HEALTHCARE DIV	N	N	--	UPC	00450-019018	ODT	12.5 mg	ORAL	18s ea	N	4.33	5.20	0.28889

Click an active ingredient hypertext link. In this example, the active ingredient is *diphenhydramine hydrochloride*. The *Find Similar Products* pop-up box is displayed.

FIND SIMILAR PRODUCTS

You are about to submit a search for all items matching these criteria.

Active Ingredient: diphenhydramine hydrochloride

Form: SOL

Strength: 12.5 mg/5 ml

Route: ORAL

Status: Active

Repackagers: Include

SUBMIT ✓ CLOSE ✕

The *Find Similar Products* pop-up displays the following information about the product for which you are about to search, including any filters you selected for your search.

- Active Ingredient
- Form
- Strength

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- Route
- Status (Active or Deactivated)
- Repackagers (Include or Exclude)

Confirm that the information displayed is the information on which you want to search. After confirming the information, click the **SUBMIT** icon. The *RED BOOK Similar Products* search results page displays.

Displaying results found for "Active Ingredient: diphenhydramine hydrochloride Form: SOL Strength: 12.5 mg/5 ml Route: ORAL" Applied												
Filters: Status - Active; Repackagers - Include												
Results 1 - 27 of 27 Page 1 of 1 Go ◀ Previous Next ▶												
Details	Price Chg	New Pkg	Product Name	Manufacturer/ Distributor	Rpkg	Generic	Orange Book Code	Code Type	Identifier	Pkg Size	WAC Unit Price	AWP Unit Price
<input type="checkbox"/>			ALLERGY CHILDREN'S	CHAIN DRUG MARKETING ASSOC., INC.	N	Y	--	NDC	63868-0823-54	118 ml	0.01356	0.01627
<input type="checkbox"/>			ALLERMAX	PFEIFFER PHARMACEUTICALS, INC.	N	N	--	NDC	00927-0617-12	120 ml	--	0.01467
<input type="checkbox"/>			CHILDREN'S BENADRYL ALLERGY	MCNEIL CONSUMER HEALTHCARE DIV	N	N	--	NDC	50580-0535-04	118 ml	0.03669	0.04407
<input type="checkbox"/>			CHILDREN'S WAL-DRYL ALLERGY	WALGREENS	N	Y	--	NDC	00363-0379-26	118 ml	--	--
<input type="checkbox"/>			CHILDREN'S WAL-DRYL ALLERGY	WALGREENS	N	Y	--	NDC	00363-0101-04	118 ml	--	--

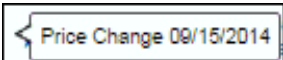
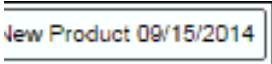
The Search Results header displays the query details.

For this example, the **Active Ingredient** searched was diphenhydramine hydrochloride. The **Form** is SOL (solution). The **Strength** is 12.5 mg/5 ml. The **Route** is ORAL. Also displayed are any filters that were applied to the search. In this example, the **Active** status was used and repackagers were included.

The *Similar Product Search Results* page displays much of the same information as any other RED BOOK search query (See "[Understanding Micromedex® RED BOOK® Search Results on page 270](#)"). However, since the active ingredient, form, strength, and route are now the same for all the products in the results set, these criteria are displayed in the Search Results header at the top of the results list to describe the exact search performed.

All columns with headings displayed in blue can be sorted in ascending or descending order. Click on the column heading to sort on the column. The display refreshes based on the sort selection with a secondary sort on product name. Click again to reverse the sort order.

Column	Description
Details Button	The Details button is related to the checkboxes that correspond to each line item in the search results. Clicking the checkbox for single or multiple products and then clicking the Details button launches the <i>Product Details</i> pop-up box (See " Product Details Search Results on page 279. ") <i>Product Details</i> pop-up box provides detailed information for the product(s) selected.

Column	Description
<p>Price Chg</p>	<p>The Price Chg (price change) column indicates if the selected product has experienced a price change effective within the last 30 days of the date the search is performed.</p> <p>💰 If a price change has occurred within this time window, a dollar sign icon displays. Hovering the cursor over the icon displays the date the price change became effective.</p> 
<p>New Pkg</p>	<p>The New Pkg column indicates if the product on which you searched is a new entry in the RED BOOK database that became effective within the previous 30 days of the date the search was performed.</p> <p>★ New entries in the database are indicated by a star icon in this column. Hovering the cursor over the icon will display the effective date of the new entry.</p> 
<p>Product Name</p>	<p>The Product Name column displays the name of all the individual products retrieved by your search. You can click the column header to sort the search results by this column. When the results are initially displayed in response to your search, they are sorted by this column.</p>
<p>Manufacturer/ Distributor</p>	<p>The Manufacturer/Distributor column displays the manufacturer/distributor of an individual product in your search results. A single product name may be associated with multiple manufacturers/distributors.</p> <p>See “Manufacturer Product List Search Results” on page 277. for more information.</p>
<p>Rpkg</p>	<p>The Rpkg column indicates whether or not the product is repackaged by the company listed as the manufacturer/distributor. A "Y" indicates that the listed manufacturer/distributor is a repackager of the product. An "N" indicates that the listed manufacturer/distributor is not a repackager.</p>
<p>Generic</p>	<p>The Generic column indicates whether or not the particular line item is a generic product. A "Y" indicates that the product is a generic version. An "N" indicates that the product is not a generic product.</p>
<p>Orange Book Code</p>	<p>If a product has been assigned an Orange Book Code, that code will appear in the Orange Book Code column. Not all products will be associated with an Orange Book Code. When there is no associated Orange Book Code, two dashes (--) will appear in the column. See “Orange Book Codes” on page 344. for more information.</p>
<p>Code Type</p>	<p>The Code Type column identifies the registry listed for the identifier, either NDC; HRI; or UPC. This code type is related to the value that appears in the Identifier column.</p>
<p>Identifier</p>	<p>The Identifier column displays the NDC, HRI, or UPC code that is associated with each individual line item retrieved in your search.</p>

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Column	Description
Pkg Size	The Pkg (package) column displays the quantity of individual items in the package. This quantity is expressed in National Council for Prescription Drug Programs (NCPDP) units (each, grams, milliliters).
WAC Unit Price	The WAC Unit Price column displays the Wholesale Acquisition Cost per unit.
AWP Unit Price	The AWP Unit Price column displays the Average Wholesale Price per unit. See "Unit Price Calculations" on page 339. for information on how unit prices are calculated.

Note: Columns for which no data is returned will contain two dashes (--).

In addition to the information displayed, the *Similar Products Search Results* page provides the ability to view detailed product information; export the search results and save them to your computer; or to print your search results. This is the same functionality that is present on the main *RED BOOK Search Results* page.

Note: If only one item meets the search criteria, you will receive the following message: "There were no additional items found for this search."

Manufacturer Product List Search Results

The Manufacturer search option enables you to view products in the RED BOOK data from a selected manufacturer.

The screenshot shows the Merative Micromedex RED BOOK search interface. At the top, it says "Merative Micromedex® RED BOOK®" with a "Go to Custom List Manager" link. Below that, a search instruction reads: "Search for prescription or over the counter medications, nutraceuticals, bulk chemicals, medical devices or supplies by product name or manufacturer. Search for a specific active ingredient in the product or by a specific code (such as NDC, UPC, or HRI)." There are two search options: "I want to search by..." with radio buttons for "Product Name", "Active Ingredient", "NDC/HRI/UPC", and "Manufacturer Name" (which is selected and highlighted with a purple box). To the right, there is an "Enter search term:" field with "mer" entered and a "Submit" button. Below the search field, a list of manufacturers is displayed, with "MERCK & CO., INC." highlighted in blue. A hand cursor is pointing at this highlighted item. The list includes: MERCK & CO., INC.; MERCK SHARP & DOHME CORP.; MERCK/SCHERING-PLOUGH PHARMA; MERTEK DIAGNOSTICS, INC.; MERICON INDUSTRIES, INC.; MERIDIAN MEDICAL TECHNOLOGIES, INC.; MERIDIAN PHARMACEUTICALS, INC.; MERIT PHARMACEUTICALS; MERLIN TECHNOLOGIES, INC.; MERRICK MEDICINE CO., INC.; MERUS LABS INTERNATIONAL INC.; MERZ AESTHETICS, INC.; MERZ PHARMACEUTICALS. On the right side of the interface, there is a vertical "Feedback" button.

Using the Manufacturer Name search option, RED BOOK displays a list of names for products manufactured or distributed by the company for which you searched.

In the example provided, a search has been performed for Merck & Co, Inc. An alphabetized listing of the name of each product (in the RED BOOK database) manufactured by Merck & Co, Inc. is returned. Each product name listed for the manufacturer is displayed as a hypertext link.

Select from a list of 105 products found for "Manufacturer: MERCK & CO., INC."

Jump To: Top of Page | 0-9 | [A](#) | [B](#) | [C](#) | [D](#) | [E](#) | [F](#) | [G](#) | [H](#) | [I](#) | [J](#) | [K](#) | [L](#) | [M](#) | [N](#) | [O](#) | [P](#) | [Q](#) | [R](#) | [S](#) | [T](#) | [U](#) | [V](#) | [W](#) | [X](#) | [Y](#) | [Z](#)

A

[AGGRASTAT](#)

[ALDOCLOR-150](#)

[ALDOCLOR-250](#)

[ALDOMET](#)

[ALDOMET ESTER H](#)

[ALDORIL 15](#)

The Jump To: menu provides the ability to navigate directly to any alphabetical index of all the products in the RED BOOK Online data available from the manufacturer on which you searched.

Each product listed for the manufacturer is a hypertext link. Clicking the hypertext link opens the RED BOOK Online Search Results page for the product selected.

At the top of the page is the **Jump To:** menu. This menu provides the ability to navigate directly to an alphabetical index of all of the product names in the RED BOOK data available from the manufacturer for which you searched. Letters in the menu that are blue are hypertext links. When clicked, the hypertext link moves you down the page to the corresponding entries. Letters in the menu that are gray are not hyperlinks and indicate that there are no product names in the list of results that begin with that letter.

Additionally, each product listed in the index of products from the manufacturer is a hypertext link. Clicking the hypertext link opens the *RED BOOK Search Results* page for the product name selected. For example, performing a manufacturer search for Merck & Co, Inc. and then clicking the hyperlink for the product name **Aggrastat** would return the following *RED BOOK Search Results* page.

Displaying results found for "Manufacturer: MERCK & CO., INC. Product Name: AGGRASTAT"

Results 1 - 3 of 3 Page 1 of 1 Go | Previous | Next ▶

Details	Price Chg	New Pkg	Product Name	Active Ingredient	Manufacturer/ Distributor	Rpkg	Generic	Orange Book Code	Code Identifier Type	Form	Strength	Route	Pkg Size	Unit Dose	WAC Pkg Price	AWP Pkg Price	AWP Unit Price
<input type="checkbox"/>			AGGRASTAT DEACTIVATED	tirofiban hydrochloride	MERCK & CO., INC.	N	N	--	NDC 00006-3713-50	SOL	0.25 mg/ml	INTRAVENOUS	50 ml	N	396.96	496.20	9.92400
<input type="checkbox"/>			AGGRASTAT DEACTIVATED	tirofiban hydrochloride	MERCK & CO., INC.	N	N	--	NDC 00006-3713-25	SOL	0.25 mg/ml	INTRAVENOUS	25 ml	N	198.48	248.10	9.92400
<input type="checkbox"/>			AGGRASTAT DEACTIVATED	tirofiban hydrochloride	MERCK & CO., INC.	N	N	--	NDC 00006-3739-43	SOL	0.05 mg/ml	INTRAVENOUS	500 ml	N	700.00	840.00	1.68000

The Manufacturer search results can be saved as a Microsoft® Excel® (.xls) file or a Comma Separated Values (.csv) file by selecting one of the two options from the **Export** drop-down menu at the top of the page. Additionally, you can print the results by clicking the **Print** icon in the upper right corner of the page.

Note: Columns for which no data is returned will contain two dashes (--).

Product Details Search Results

RED BOOK provides the ability to view detailed information for single or multiple products. You can access the detailed product information from the *RED BOOK Search Results* page.

Displaying results found for "Product Name: *HUMALOG* " Applied Filters: Status - All; Re

Results 1 - 12 of 12

<input type="checkbox"/>	Price Chg	New Pkg	Product Name	Active Ingredient	Manufacturer/ Distributor	Rpkg	Generic	Orange Book Code	Code Type	Identifier	Form
<input checked="" type="checkbox"/>			HUMALOG	insulin lispro, recombinant	A-S MEDICATION SOLUTIONS LLC	Y	N	--	NDC	54569-6435-00	SUS
<input type="checkbox"/>			HUMALOG DEACTIVATED	insulin lispro, recombinant	DISPENSEXPRESS, INC.	Y	N	--	NDC	68115-0746-10	SUS
<input type="checkbox"/>			HUMALOG DEACTIVATED	insulin lispro, recombinant	DISPENSING SOLUTIONS, INC	Y	N	--	NDC	55045-3602-01	SUS
<input checked="" type="checkbox"/>			HUMALOG	insulin lispro, recombinant	LILLY, ELI & COMPANY	N	N	--	NDC	00002-7510-01	SUS
<input type="checkbox"/>			HUMALOG	insulin lispro, recombinant	LILLY, ELI & COMPANY	N	N	--	NDC	00002-8799-01	SUS
<input type="checkbox"/>			HUMALOG	insulin lispro, recombinant	LILLY, ELI & COMPANY	N	N	--	NDC	00002-7510-17	SUS
<input checked="" type="checkbox"/>			HUMALOG	insulin lispro, recombinant	LILLY, ELI & COMPANY	N	N	--	NDC	00002-7516-59	SUS
<input checked="" type="checkbox"/>			HUMALOG	insulin lispro, recombinant	LILLY, ELI & COMPANY	N	N	--	NDC	00002-7516-01	SUS
<input type="checkbox"/>			HUMALOG DEACTIVATED	insulin lispro, recombinant	LILLY, ELI & COMPANY	N	N	--	NDC	00002-7515-59	SUS
<input type="checkbox"/>			HUMALOG	insulin lispro, recombinant	LILLY, ELI & COMPANY	N	N	--	NDC	00002-8799-59	SUS
<input type="checkbox"/>			HUMALOG	insulin lispro, recombinant	PHYSICIANS TOTAL CARE	Y	N	--	NDC	54868-5108-00	SUS
<input type="checkbox"/>			HUMALOG	insulin lispro, recombinant	QUALITY CARE PRODUCTS, LLC	Y	N	--	NDC	35356-0102-00	SUS

Click the checkbox(es) to view detailed information for a single or multiple products.

You can select the checkbox directly beneath the **Details** button to view detailed information for all items displayed on this page.

Select the product name hypertext link to display the details for a single product.

For this example, four (4) products were selected. After selecting the checkboxes, the **Details** button was clicked.

The *Product Details* pop-up box displays:

RED BOOK PRODUCT DETAILS

2 of 4

Product Information

Product Name:	HUMALOG	Code:	NDC
Active Ingredient(s):	insulin lispro, recombinant	Identifier:	00002-7516-59
Manufacturer/Distributor:	LILLY, ELI & COMPANY	Unit Dose:	N
Form:	SUSPENSION	Single Source:	Y
Strength:	100 u/1 ml	Repackager:	N
Size:	3 ml 5s	Generic:	N
Route of Admin:	SUBCUTANEOUS	Application:	NDA
Orange Book Code:	--	Add'l Description:	(CARTRIDGE)
DEA Class:	RX		

Current Pricing Information:	AWP Unit Pricing History:	J-Codes:
Package Unit Effective Date	Effective Date Unit % Change	
AWP 612.54 40.83600 05/02/2017	05/02/2017 40.83600 7.8	J1815 PER 5 UNIT
WAC 510.45 34.03000 05/02/2017	07/13/2016 37.88000 7.5	S5551 5 UNITS
DIR 510.45 34.03000 05/02/2017	12/01/2015 35.23200 6.4	--
FUL -- -- --	05/29/2015 33.12000 9.9	--
SRP --	More >	--

PRINT CLOSE

Detailed information for each product is shown. When more than one product was selected, navigation to the other products is accomplished using the right and left arrows at the top of the pop-up.

When more details are available, the **More>** link is presented. Click the link to view the additional information.

The *Products Detail* page is divided into two sections. The upper section of the page displays the following information:

Product Details Information

Field Name	Description
Product Name	This field displays the name of the product selected. If the product is not currently marketed its "deactivated" status is displayed directly underneath the product name.
Active Ingredient(s)	The active ingredient(s) for the product is/are displayed.
Manufacturer/Distributor	The manufacturer/distributor of the product is displayed.
Form	The dosage form for the product is displayed. For more information on dosage forms, See "Dosage Form Descriptions" on page 340.
Strength	The product strength, when applicable, is displayed. This field is limited to 75 characters.

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Size	The package quantity, volume, or mass is displayed.
Route of Admin	The route of administration for the product is displayed.
Orange Book Code	When applicable, the corresponding Orange Book Code for the product is displayed.
DEA Class	The Drug Enforcement Agency (DEA) classification code is displayed.
Code	The Code Type column identifies the registry listed for the identifier, either NDC; HRI; or UPC.
Identifier	The identifying code itself (NCD, HRI, or UPC) is displayed.
Unit Dose	The Unit Dose field indicates if the product retrieved in your search is available in unit dose packaging. A "Y" indicates that the product is available in unit dose packaging. An "N" indicates that the product is not.
Single Source	<p>Single source "Y" identifies the product as a drug formulation generally available from only one source. If the single source field contains an "N" the product is available from more than one source.</p> <p>In those occasional instances when branded products are cross-licensed, each product carries the single-source indicator.</p>
Repackager	The Repackager field indicates whether or not the product is repackaged by the company listed as the manufacturer/distributor. A "Y" indicates that the listed manufacturer/distributor is a repackager. An "N" indicates that the listed manufacturer/distributor is not.
Generic	The Generic field indicates whether or not the particular line item is a generic product. A "Y" indicates that the product is a generic version. An "N" indicates that the product is not a generic product.
Application	The Application field indicates whether or not the drug is classified as NDA, ANDA or neither in order to differentiate between authorized generics and regular generics.
Add'l Information	Additional information about the product, when it is available, is displayed in this field.

The lower section of the page displays the following information ([See "Micromedex® RED BOOK® Terms and Definitions" on page 345.](#) for acronym definitions):

- **Current Pricing Information** - When available, this section of the page displays AWP, WAC, DIR, FUL, and SRP pricing information. This information is displayed by Package, Unit, and Effective Date.
- **AWP Unit Pricing History** - When available, this section of the page displays AWP, WAC, DIR, FUL, and SRP pricing information. This information is sorted by EffectiveDate, and displays Unit and % of Change. Occasionally, a **More >** hypertext link is available in this section. Click the link to view AWP Unit Pricing history, as shown below.

RED BOOK PRODUCT DETAILS

Product Information

Product Name: HUMALOG Code: NDC
 Active Ingredient(s): insulin lispro, recombinant Identifier: 00002-7516-59

Manufacture Form:
 Strength:
 Size:
 Route of Administration:
 Orange Bead Markings:
 DEA Classification:

Current Price:
 AWP:
 WAC:
 DIR:
 FUL:
 SRP:

RED BOOK AWP PRICE HISTORY

Product Name: HUMALOG
 Code: NDC
 Identifier: 00002-7516-59

Effective Date	Unit	% Change
05/02/2017	40.83600	7.8
07/13/2016	37.88000	7.5
12/01/2015	35.23200	6.4
05/29/2015	33.12000	9.9
11/25/2014	30.13200	9.9
06/05/2014	27.40800	9.9
12/12/2013	24.94000	9.7
07/26/2013	22.72800	8.9
12/28/2012	20.87200	8.0
07/11/2012	19.32133	6.0
11/30/2011	18.22800	5.0
05/03/2011	17.36000	8.6

PRINT CLOSE

You can print the AWP Price History by clicking the **PRINT** icon. Click the **CLOSE** icon to exit the pop-up box and return to the *Product Details* page.

- **J-Codes** - When applicable, J-Code information for the product is displayed. Occasionally, a **More >** hypertext link is available in this section. Click the link to view additional J-Codes for the associated NDC.

ADDITIONAL J-CODES

Product Name: HUMALOG

J0000	TEST
J0001	TEST
J0003	TEST
J1815	PER 5 UNIT
J1817	PER 50 UNIT
85551	5 UNITS

PRINT CLOSE

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Note: Columns for which no data is returned will contain two dashes (--).

The information displayed on the *Product Details* page can be printed by clicking the **PRINT** icon at the bottom of the page.

Click the **CLOSE** option to exit the page.

Viewing Manufacturer Contact Details

From any *RED BOOK Search Results* page that displays a manufacturer name, you can obtain manufacturer contact information.

Click a manufacturer's name, as shown in the example below.

Displaying results found for "Product Name: AVANDIA" Applied Filters: Status - Active; Repackagers - Exclude

Results 1 - 3 of 3 Page 1 of 1 Go | Previous | Next ▶

Details	Price Chg	New Pkg	Product Name	Active Ingredient	Manufacturer/ Distributor	Rpkg	Generic	Orange Book Code	Identifier Type	Form	Strength	Route	Pkg Size	Unit Dose	WAC Price	AWP Price	AWP Unit Price
<input type="checkbox"/>			AVANDIA	rosiglitazone maleate	GLAXO SMITHKLINE PHARMACEUTICALS	N	N	AB	NDC 00173-0863-13	TAB	4 mg	ORAL	30s ea	N	117.04	140.45	4.68167
<input type="checkbox"/>			AVANDIA	rosiglitazone maleate	GLAXO SMITHKLINE PHARMACEUTICALS	N	N	AB	NDC 00173-0864-13	TAB	8 mg	ORAL	30s ea	N	212.64	255.17	8.50567
<input type="checkbox"/>			AVANDIA	rosiglitazone maleate	GLAXO SMITHKLINE PHARMACEUTICALS	N	N	AB	NDC 00173-0861-18	TAB	2 mg	ORAL	60s ea	N	157.71	189.25	3.15417

The *Manufacturer Details* pop-up box is displayed.

RED BOOK MANUFACTURER DETAILS

Manufacturer Name: GLAXO SMITHKLINE PHARMACEUTICALS
Address 1: 3 FRANKLIN PLAZA
Address 2: P.O. BOX 7929
City: PHILADELPHIA
State: PA
Zip: 19101
Phone: (888) 825-5249

Label Codes:
00007
00029
00108
00173
[More >](#)

Click the **More>** link (when available) to view additional label codes by the manufacturer

PRINT CLOSE

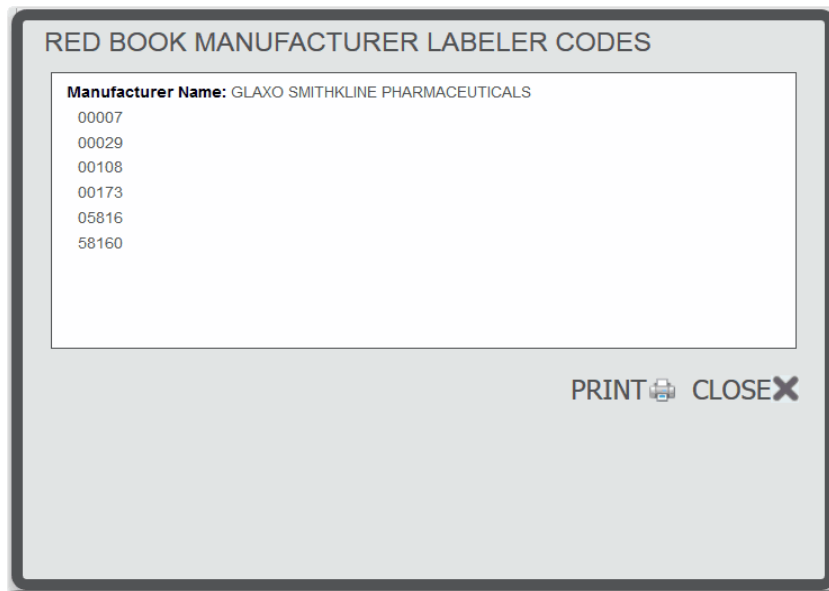
The *Manufacturer Details* pop-up box displays the following information about a manufacturer:

- Manufacturer Name

- Address 1
- Address 2
- City
- State
- Zip Code
- Telephone Number

Also displayed are labeler codes for the manufacturer. Most manufacturers have a specific set of labeler codes which they use. A labeler code is a five-digit number that corresponds with the first five characters in an NDC number.

Occasionally, a **More >** hypertext link is available in this section. Click the link to view additional labeler codes used by the manufacturer, as shown below.



You can print the *Manufacturer Labeler Codes* information shown in the pop-up by clicking the **PRINT** icon. Click **CLOSE** to exit the pop-up box and return to *Manufacturer Details* pop-up.

Note: Columns for which no data is returned will contain two dashes (--).

You can print the *Manufacturer Details* information by clicking the **PRINT** icon. Click **CLOSE** to exit the pop-up and return to the original search results.

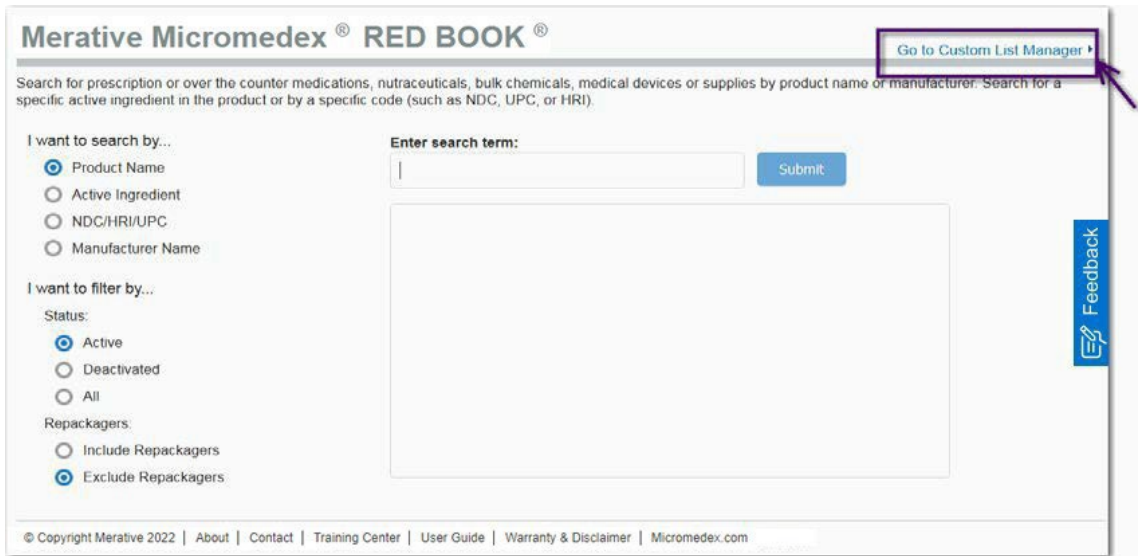
THE CUSTOM LIST MANAGER

The Custom List Manager provides the ability to create and edit a list of products for tracking purposes. The list of products can be saved to your local computer or network and re-run through RED BOOK to check for product changes. The ability to save a product list to your local system allows you to perform product searches on a set of products of interest to you without manually entering each product every time you want to check for changes to those products.

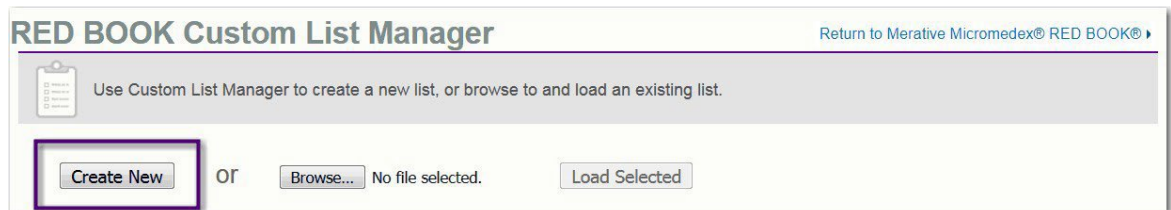
Note: The maximum allowable number of products in a custom list is 2,000.

Creating a Custom List

To begin building a custom list, click the **Go To Custom List Manager >** hypertext link on the main *RED BOOK Search* page.

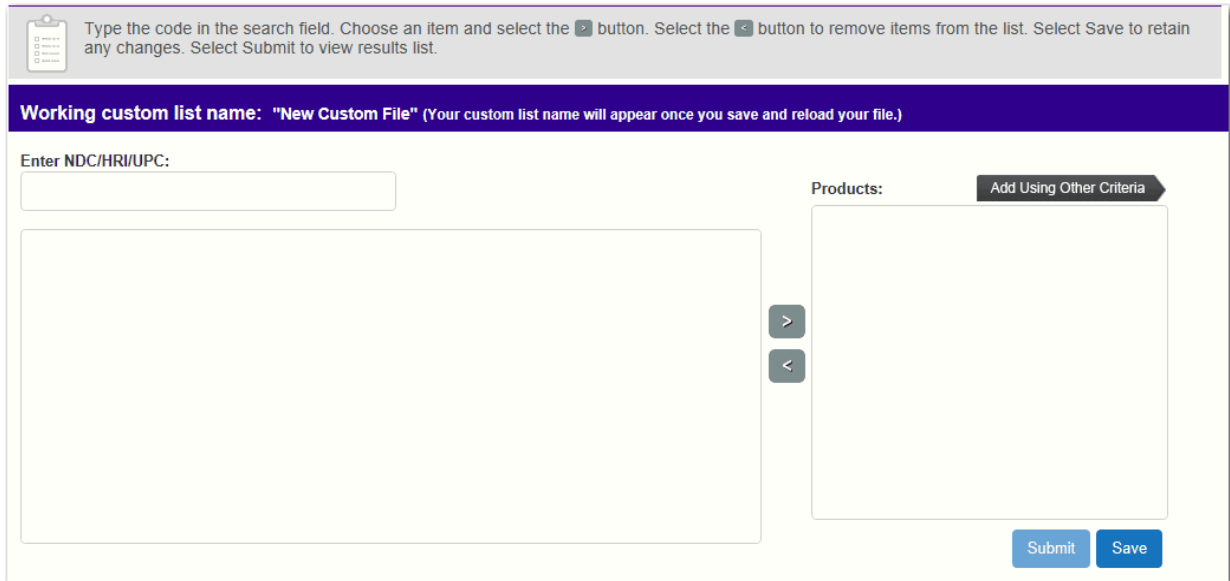


The *RED BOOK Custom List Manager* page displays.



Click the **Create New** button.

The *Custom List Edit* page displays.



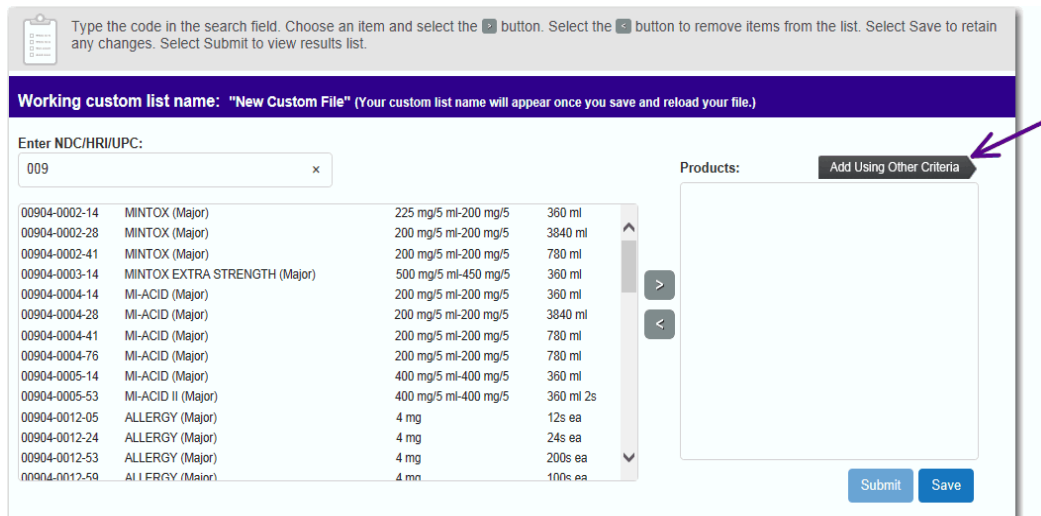
Custom lists can be built using:

- A code number (NDC/HRI/UPC) (see [page 286](#))
- Product name, active ingredient, or manufacturer's name (see [page 287](#))


By default, the search by NDC/HRI/UPC code search page is shown.


Creating a Custom List by: NDC/HRI/UPC Code

If you choose to create your custom list searching by a code, begin entering the code number in the *Enter NDC/HRI/UPC* field. As you type, RED BOOK will make product suggestions based on the characters entered.



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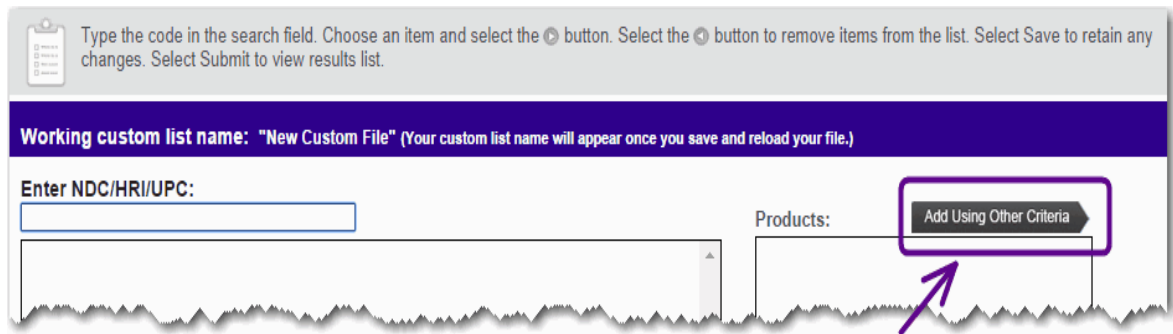
Select the desired product by highlighting it with your cursor, then click the  right-pointing arrow to move the product into the *Products:* box.



To remove a product from the *Products:* box, highlight the product and click the  left-pointing arrow. The item is removed.

Note: Duplicate entries cannot be saved to the Custom List. If you accidentally try to add a duplicate product to your Custom List, you will be presented with an error message.

You can continue creating a custom list based on NDC/HRI/UPC codes, or you can click the **Add Using Other Criteria** button at the top of the page to continue building your custom list by searching by product name, active ingredient or manufacturer name.

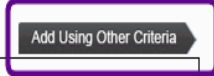
Creating a Custom List by: Name, Active Ingredient or Manufacturer



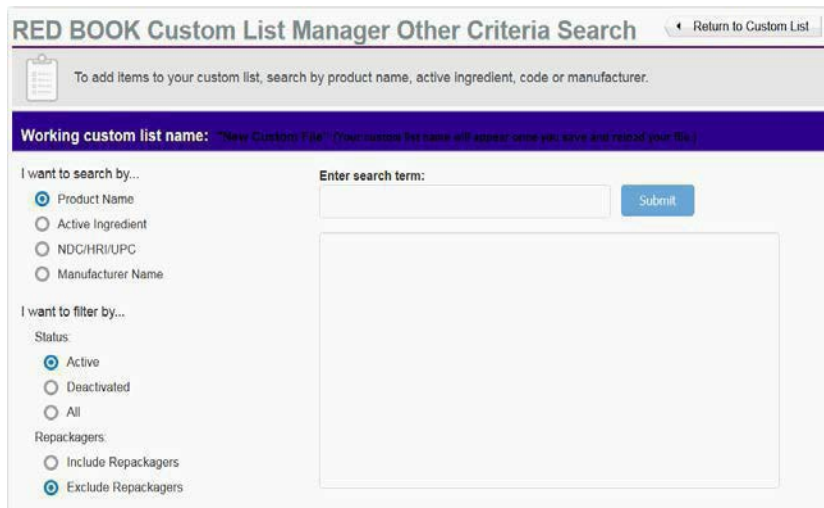
Type the code in the search field. Choose an item and select the  button. Select the  button to remove items from the list. Select Save to retain any changes. Select Submit to view results list.

Working custom list name: "New Custom File" (Your custom list name will appear once you save and reload your file.)

Enter NDC/HRI/UPC:

Products: 

RED BOOK allows you to create a custom list using a product name, active ingredient, or manufacturer's name as a search term. Click the **Add Using Other Criteria** button located directly above the *Products:* box on the initial *Custom List Manager Edit* page.



RED BOOK Custom List Manager Other Criteria Search [Return to Custom List](#)

To add items to your custom list, search by product name, active ingredient, code or manufacturer.

Working custom list name: "New Custom File" (Your custom list name will appear once you save and reload your file.)

I want to search by...

- Product Name
- Active Ingredient
- NDC/HRI/UPC
- Manufacturer Name

Enter search term:

I want to filter by...

Status:

- Active
- Deactivated
- All

Repackagers:

- Include Repackagers
- Exclude Repackagers

The *RED BOOK Custom List Manager Other Criteria Search* functions exactly like the regular Micromedex® RED BOOK® search tool. See ["Searching Micromedex® RED BOOK® Online"](#) on page 266. for more information.

For example, perform a search for *Lyrica* from the *RED BOOK Custom List Manager Other Criteria Search* page. Highlight the product name in the suggestion box, and then click the **Submit** button.

To add items to your custom list, search by product name, active ingredient, code or manufacturer.

Working custom list name: "New Custom File" (Your custom list name will appear once you save and reload your file.)

I want to search by...

- Product Name
- Active Ingredient
- NDC/HRI/UPC
- Manufacturer Name

Enter search term: LYRICA x **Submit**

I want to filter by...

Status:

- Active
- Deactivated
- All

Repackagers:

- Include Repackagers
- Exclude Repackagers

LYRICA

The *RED BOOK Custom List Manager Other Criteria Results* page displays. This page provides the product matches for the search term you used.

Custom List Manager Search Results

Results are displayed in rows, with links to additional information. Data can be re-sorted by most of the column headings. All columns with headings in blue can be sorted in ascending or descending order. Click on the column heading to sort on the column. The display refreshes based on the sort selection with a secondary sort on product name. Click again to reverse the sort order.

RED BOOK Custom List Manager Other Criteria Results [Return to Custom List](#)

Choose items and click the add button to add to custom list.

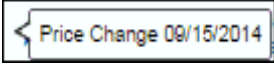
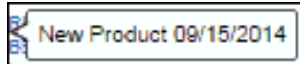
Working custom list name: "New Custom File" (Your custom list name will appear once you save and reload your file.)

Results 1 - 13 of 13 Page 1 of 1 Go | Previous | Next

Add	Price Chg	New Pkg	Product Name	Active Ingredient	Manufacturer/ Distributor	Rpkg	Generic	Orange Book Code	Code Type	Identifier	Form	Strength	Route	Pkg Size	Unit Dose
<input type="checkbox"/>			LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1013-68	CAP	50 mg	ORAL	90s ea	N
<input type="checkbox"/>			LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1013-41	CAP	50 mg	ORAL	100s ea	Y
<input type="checkbox"/>			LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1012-68	CAP	25 mg	ORAL	90s ea	N
<input type="checkbox"/>			LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1016-68	CAP	150 mg	ORAL	90s ea	N
<input type="checkbox"/>			LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1016-11	CAP	150 mg	ORAL	100s ea	Y

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The column headings and their functions are described in the table below.

Column	Description
Add Button	The Add button is related to the checkboxes that correspond to each line item in the search results. Clicking the checkbox for a single or for multiple products and then clicking the Add button launches the <i>Products Added</i> pop-up box. The <i>Products Added</i> pop-up confirms that the products selected have been added to your custom list.
Price Chg	<p>The Price Chg (price change) column indicates if the selected product has experienced a price change effective within the last 30 days of the date the search is performed.</p> <p>💰 If a price change has occurred within this time window, the dollarsign icon displays.</p>  <p>Hovering the cursor over the icon displays the date the price change became effective.</p>
New Pkg	<p>The New Pkg column indicates if the product on which you searched is a new entry in the RED BOOK database that became effective within the previous 30 days of the date the search was performed.</p> <p>★ New entries in the database are indicated by a star icon in this column.</p>  <p>Hovering the cursor over the icon will display the effective date of the new entry.</p>
Product Name	<p>The Product Name column displays the name of all the individual products retrieved by your search. You can click the column header to sort the search results by this column.</p> <p>When the results are initially displayed in response to your search, they are sorted by this column.</p>
Active Ingredient	The Active Ingredient column displays the active ingredient(s) for the product for which you searched.
Manufacturer/Distributor	<p>The Manufacturer/Distributor column displays the manufacturer/distributor of an individual product in your search results. A single product name may be associated with multiple manufacturers/distributors.</p> <p>See “Manufacturer Product List Search Results” on page 277. for more information.</p>
Rpkg	The Rpkg column indicates whether or not the product is repackaged by the company listed as the manufacturer/distributor. A "Y" indicates that the listed manufacturer/distributor is a repackager of the product. An "N" indicates that the listed manufacturer/distributor is not a repackager.
Generic	The Generic column indicates whether or not the particular line item is a generic product. A "Y" indicates that the product is a generic version. An "N" indicates that the product is not a generic product.

Orange Book Code	If a product has been assigned an Orange Book Code, that code will appear in the Orange Book Code column. Not all products will be associated with an Orange Book Code. When there is no associated Orange Book Code, two dashes (--) will appear in the column. See “Orange Book Codes” on page 344 for more information.
Code Type	The Code Type column identifies the registry listed for the identifier, either NDC; HRI; or UPC. This code type is related to the value that appears in the Identifier column.
Identifier	The Identifier column displays the NDC, HRI, or UPC code that is associated with each individual line item retrieved in your search.
Form	The Form column displays the dosage form (tablet, solution, syrup, etc.) of a product. See “Dosage Form Descriptions” on page 340. for more information on dosage forms.
Strength	The Strength column displays the active ingredient strength for the product for which you searched. NOTE: The Strength column is limited to 24 characters. Entries in this field that exceed 24 characters are truncated. A longer description can be viewed on the <i>Product Details</i> page. See “Product Details Search Results” on page 279.
Route	The Route column displays the route of administration for the product. See “Route Listing” on page 343. for more information.
Pkg Size	The Pkg (package) column displays the quantity of individual items in the package. This quantity is expressed in National Council for Prescription Drug Programs (NCPDP) units (each, grams, milliliters).
Unit Dose	The Unit Dose column indicates if the product retrieved in your search is available in unit dose packaging. A "Y" indicates that the product is available in unit dose packaging. An "N" indicates that the product is not available in unit dose packaging.

Note: Columns for which no data is returned will contain two dashes (--).

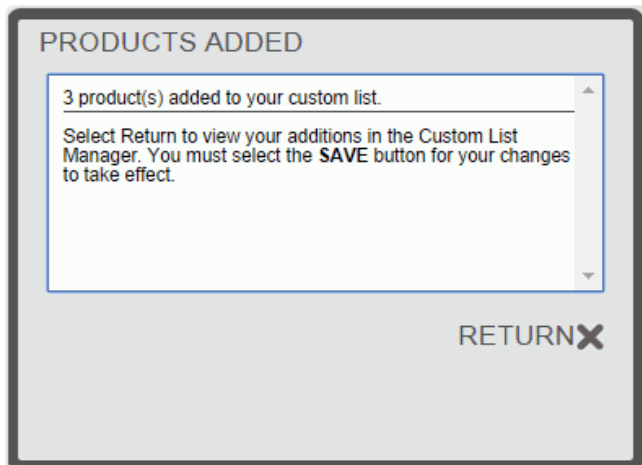
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Results 1 - 13 of 13 Page 1 of 1 Go |

<input type="checkbox"/>	Add	Price Chg	New Pkg	Product Name ▼	Active Ingredient	Manufacturer/ Distributor	Rpkg	Generic	Orange Book Code	Code Type	Identifier	Form	Strength	Ro
<input checked="" type="checkbox"/>				LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1012-88	CAP	25 mg	Of
<input checked="" type="checkbox"/>				LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1018-88	CAP	150 mg	Of
<input type="checkbox"/>				LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1018-41	CAP	150 mg	Of
<input checked="" type="checkbox"/>				LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1014-88	CAP	75 mg	Of
<input type="checkbox"/>				LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1014-41	CAP	75 mg	Of
<input type="checkbox"/>				LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1014-88	CAP	50 mg	Of

Locate the product(s) that you want to add to the custom list you are building. Click the checkbox(es) adjacent to the line item(s) you want to include. To add the selected items to your custom list, click the **Add** button located at the top of the page.

The *Products Added* pop-up appears.



The *Products Added* pop-up confirms that your selection has been added to the list you are building.

Click the **RETURN** button to exit the pop-up box and return to the *Custom List Edit* page.

The *Custom Products* box displays the products you have added to your custom list.

Enter NDC/HRI/UPC:

Products: Add Using Other Criteria

00071-1012-68 LYRICA
00071-1014-68 LYRICA
00071-1016-68 LYRICA

Submit Save

You can continue adding products to the list you are creating, or you can save your list by clicking the **Save** button.

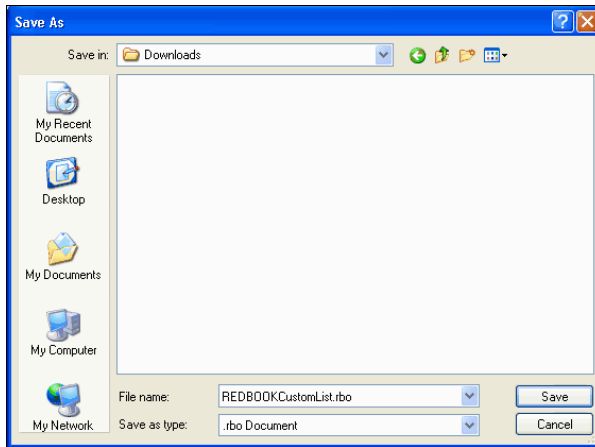
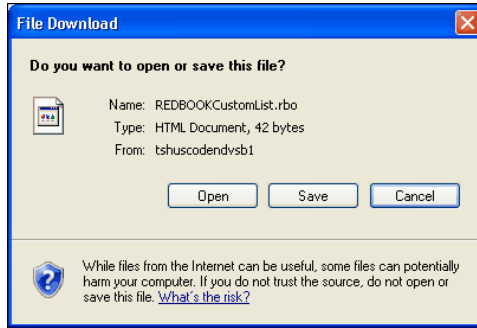
Note: You must save your custom list before the **Submit** button is active.

Saving Your Custom List

After you have finished adding products to your custom list, you will want to save the file. Saving the custom list allows you to retrieve and run the same search repeatedly without entering each individual product.

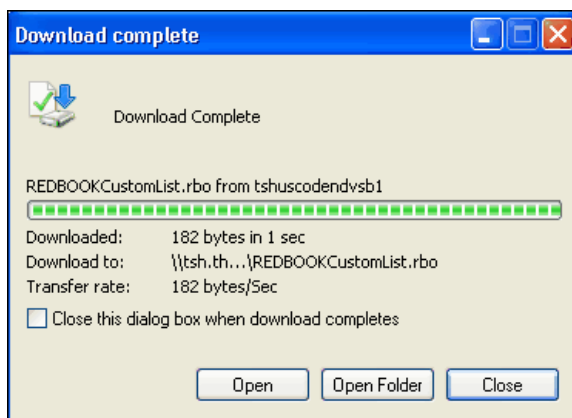
Click the **Save** button. The *File Download* dialog is displayed. Click the **Save** button. The *Save As* window is displayed.

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Enter the name for your custom list in the File name field. By default, the file will be named REDBOOKCustomList.rbo. Navigate to the location to which you want to save the file. Click the **Save** button to save the file to your computer.

Note: The file extension must be **.rbo**, indicating it is a RED BOOK custom list file.

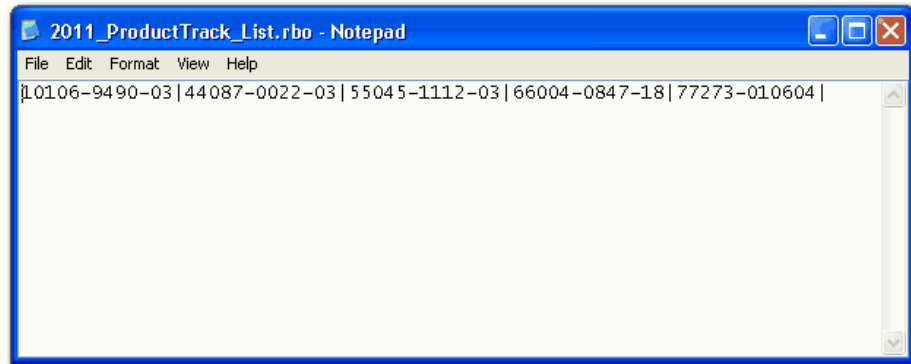


Click the **Close** button. The file is now saved. You can use this file to perform a search on this list of products, as necessary.

Creating a Custom List Manually

You can create a Custom List completely outside of the RED BOOK application using any text editor or third-party word processor, as long as you create the list according to the following guidelines:

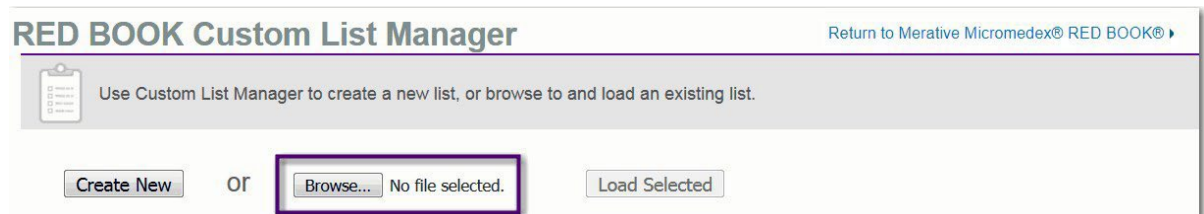
- The filename must carry the .rbo file extension (e.g., product_list_name.rbo)
- The file structure must be pipe-delimited (|)
- All entries must follow the appropriate code format of 5-4-2 or 5-6 (e.g., 12345-6789-00 or 12345-678900).



Searching Micromedex® RED BOOK® Using a Saved Custom List

After creating and saving a custom list, you can upload that list into RED BOOK and run a search, based on the items in the custom list.

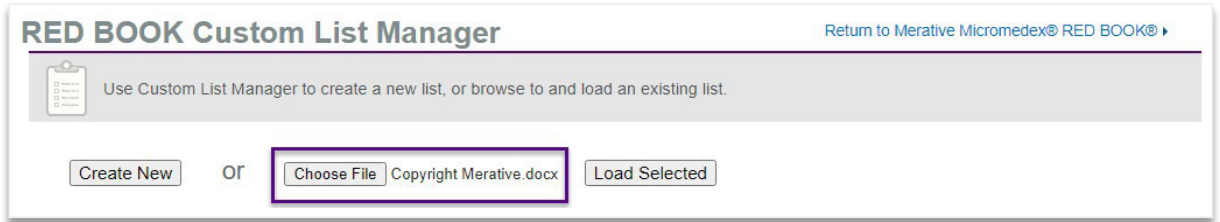
1. Log into RED BOOK and click **Go To Custom List Manager >** located on the top right side of the page. The *RED BOOK Custom List Manager* page displays.



2. Click the **Browse** button. The *Choose file* dialog displays.
3. Navigate to the location of your saved custom list file. Highlight the file and then click the **Open** button.

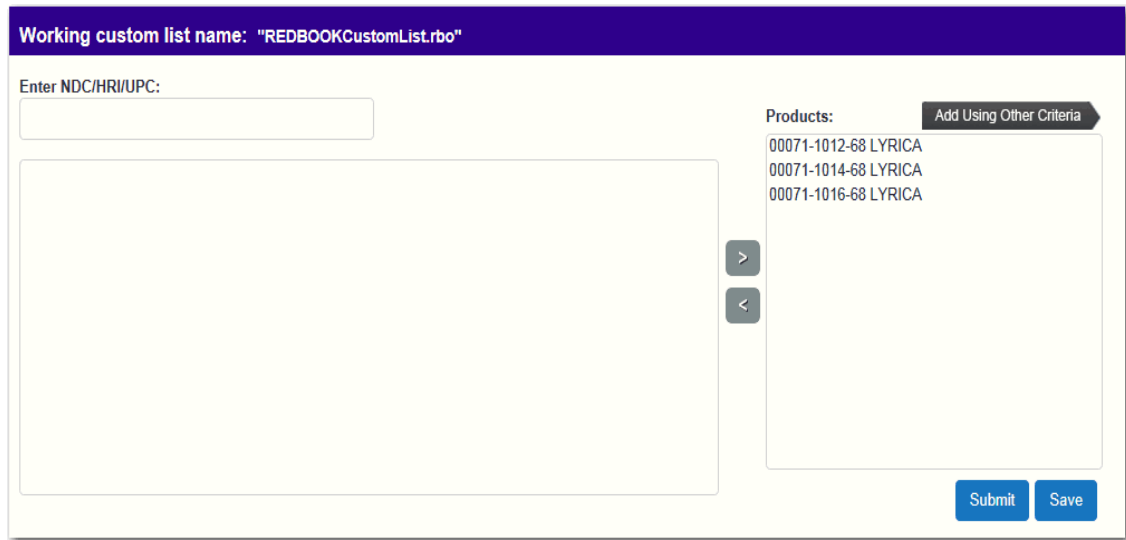
The *Choose file* window closes and the *RED BOOK Custom List Manager* page is displayed again.

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The location path of the file now appears in the field to the right of the **Choose File** button and the **Load Selected** button is now active.

4. Click the **Load Selected** button. The custom list is loaded into RED BOOK and is displayed in the *Product:* box on the *Custom List Edit* page.



With the list selected and loaded, you can now:

- Edit your custom list by adding additional products - *or* -
- Perform a search on your custom list by clicking the **Submit** button

Details		Price Chg	New Product Pkg Name	Active Ingredient	Manufacturer/ Distributor	Rpkg	Generic	Orange Book Code	Code Identifier	Form	Strength	Route	Pkg Size	Unit Dose	WAC Pkg Price	AWP Pkg Price	AWP Unit Price
<input type="checkbox"/>			LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC 00071-1012-68	CAP	25 mg	ORAL	90s ea	N	394.84	473.81	5.26456
<input type="checkbox"/>			LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC 00071-1014-68	CAP	75 mg	ORAL	90s ea	N	394.84	473.81	5.26456
<input type="checkbox"/>			LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC 00071-1014-41	CAP	75 mg	ORAL	100s ea	Y	482.53	579.04	5.79040

RED BOOK searches all of the products in the custom list and returns a *Custom List Manager Results* page.

The type of information and layout of the results page from a custom list search is the same as a standard RED BOOK search. [See “Understanding Micromedex® RED BOOK® Search Results” on page 270.](#) for information on RED BOOK search results.

CHAPTER 19: MICROMEDEX® FOR MOBILE DEVICES

Much more than quick drug look-ups, *mobile*Micromedex® powers your mobile device with a wealth of clinical knowledge from Micromedex, the industry's leading provider of evidence-based clinical information.

ACCESS MICROMEDEX® FROM YOUR TABLET



The same clinical evidence content you get on your desktop is also available to you on your tablet at no additional charge.

Note: Drug information from Health Canada and European Medicines Agency (EMA) is available only for the Micromedex® desktop application. See [Chapter 5: Regulatory Authority Information on page 116](#) for more information.

Follow these easy steps to access web-based *mobile*Micromedex on your tablet:

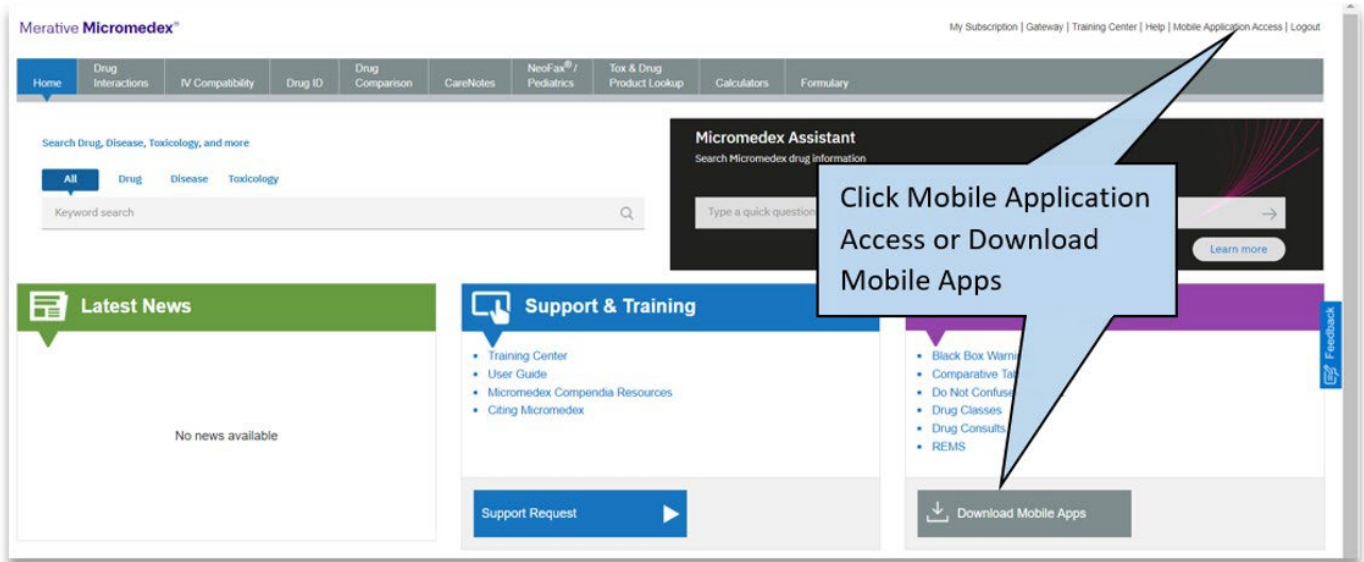
1. Open your Internet browser.
2. Go to <http://www.micromedexsolutions.com/micromedex2/librarian>
3. Enter your authentication information.

If you access Micromedex from your desktop with a username and password, you may use the same credentials to access Micromedex on your tablet.

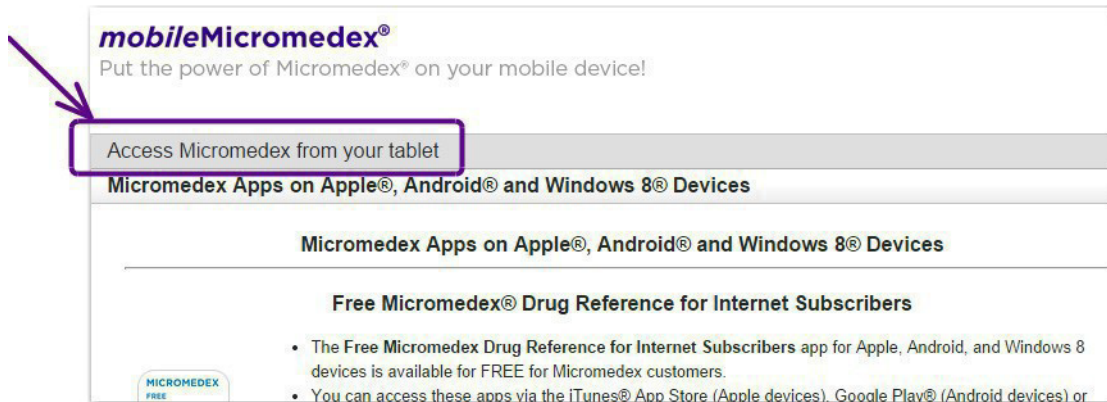
If you do not access Micromedex from your desktop with a username and password, follow these steps to retrieve the credentials:

From the Micromedex home page click **Download Mobile Apps** under Resources or from any page click **Mobile Application Access**.

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Click **Access Micromedex from your tablet.**



Use the authentication information provided.

Access Micromedex from your tablet

Access Micromedex from your tablet

The same clinical evidence content you get on your desktop is also available to you on your tablet at no additional charge.

Follow these easy steps to access Micromedex on your tablet.

Step 1: Open your browser.

Step 2: Go to <http://www.micromedexsolutions.com/micromedex2/librarian>

Step 3: Enter your authentication information:

If you DO NOT access Micromedex from your desktop with a user name and password, use the following authentication information:

Username:

Password:

Note: After entering the authentication information, it will last for the current quarter on your device. At the end of the quarter you will need to return to this site and obtain a new username and password. The password will change on the first Sunday of the quarter.

Quarterly Schedule:

- January
- April
- July
- September

If you need further assistance or have questions, please contact support at www.micromedex.com/support/request

Note: The username and password will change annually.

If you need further assistance or have questions, please email at ProductSupport@Merative.com

APPS AVAILABLE FOR DOWNLOAD

Free Micromedex® Drug Ref. for Internet Subscribers

Access the same, evidence-based Micromedex content you rely on everyday directly from your mobile device(s). All apps contain the industry's most comprehensive drug information and are backed by the same thorough, unbiased editorial process used for all Micromedex solutions.



- The **Free Micromedex Drug Reference for Internet Subscribers** app for Apple, Android, and Windows 8 devices is available for FREE for Micromedex customers.
- You can access these apps via the iTunes® App Store (Apple devices), Google Play® (Android devices) or the Windows Store® (Windows 8 devices).
- Android users only: the app is called **Free Micromedex Drug Reference** in the Google Play store.
- You can activate the app by following the simple instructions below.

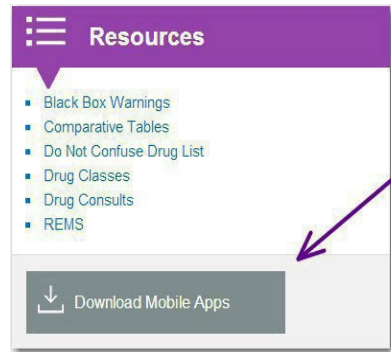
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Simple instructions for installation:

Step 1

Visit the iTunes App Store (Apple devices), Google Play (Android devices) or the Windows Store (Windows 8 devices) and search for "Micromedex."

Note: You can also click on **Download Mobile Apps** in the *Resources* column on the Micromedex Internet home page to access direct links to the app on the iTunes App Store, Google Play, and the Windows Store.



Step 2

From the Micromedex app results, select **Free Micromedex Drug Reference for Internet Subscribers** (Apple devices and Windows 8 devices) or **Free Micromedex Drug Reference** (Android devices). You may be prompted to enter your Apple, Google or WindowsID.

Step 3

The app should download directly to your device. (If you visited the iTunes App Store on your PC rather than your device, you may have to sync your device to iTunes on your PC, in order to load the app onto your device.)

Step 4

Open the app on your device. To begin using **Free Micromedex Drug Reference for Internet Subscribers** enter the password which can be found on the *mobile*Micromedex page in the Micromedex Internet application by clicking on **Download Mobile Apps** in the *Resources* column on the Micromedex home page.



The password is case-sensitive. Please enter it exactly as it appears on the *mobile*Merative Micromedex page.

Note: A valid password is required to download the apps and on a recurring (annual) basis. When downloading for the first time and when prompted from within the app, return to the *mobileMicromedex* page in the Micromedex Internet application to obtain the current password.

Micromedex® Drug Int.



The **Drug Interactions** app for Apple and Android devices is available for FREE for Micromedex customers.

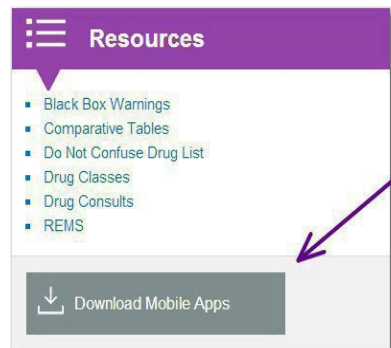
You can access these apps via the iTunes® App Store (Apple devices) or Google Play® (Android devices).

Simple instructions for installation:

Step 1

Visit the iTunes App Store (Apple devices), or Google Play (Android devices) and search for "Micromedex."

Note: You can also click on **Download Mobile Apps** in the *Resources* column on the Micromedex Internet home page and scroll to the Micromedex® Drug Interactions section to access direct links to the app on the iTunes App Store and Google Play.



Step 2

From all the Micromedex app results, select **Drug Interactions**. You may be prompted to enter your Apple or Google ID.

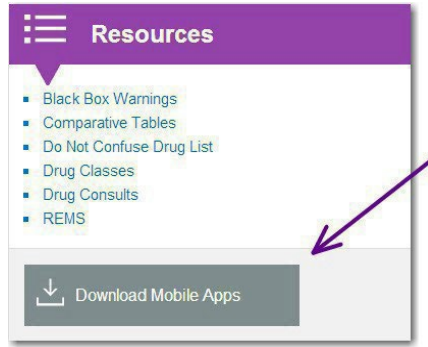
Step 3

The app should download directly to your device. (If you visited the iTunes App Store on your PC rather than your device, you may have to sync your device to iTunes on your PC, in order to load the app onto your device.)

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Step 4

Open the app on your device. To begin using **Micromedex Drug Interactions** enter the password which can be found on the *mobile*Micromedex page in the Micromedex Internet application by clicking on **Download Mobile Apps** in the *Resources* column on the Micromedex home page and scrolling to the Micromedex Drug Interactions section.



The password is case-sensitive. Please enter it exactly as it appears on the *mobile*Micromedex page.

Note: A valid password is required to download the apps and on a recurring (annual) basis. When downloading for the first time and when prompted from within the app, return to the *mobile*Micromedex page in the Micromedex Internet application to obtain the current password.

Micromedex® IV Comp.

The **IV Compatibility** app for Apple and Android devices is available for FREE for Micromedex customers with a current subscription to IV Compatibility.

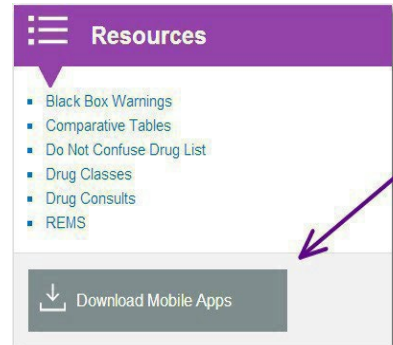
You can access these apps via the iTunes® App Store (Apple devices) or Google Play® (Android devices).

Simple instructions for installation:

Step 1

Visit the iTunes App Store (Apple devices) or Google Play (Android devices) and search for "Micromedex."

Note: You can also click on **Download Mobile Apps** in the *Resources* column on the Micromedex Internet home page and scroll to the Micromedex IV Compatibility section to access direct links to the app on the iTunes App Store and Google Play.

**Step 2**

From the Micromedex app results, select **Micromedex IV Compatibility**. You may be prompted to enter your Apple or GoogleID.

Step 3

The app should download directly to your device. (If you visited the iTunes App Store on your PC rather than your device, you may have to sync your device to iTunes on your PC, in order to load the app onto your device.)

Step 4

Open the app on your device. To begin using **Micromedex IV Compatibility** enter the password which can be found on the *mobile*Micromedex page in the Micromedex Internet application by clicking on **Download Mobile Apps** in the *Resources* column on the Micromedex home page and scrolling to the Micromedex IV Compatibility section.

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The password is case-sensitive. Please enter it exactly as it appears on the *mobileMicromedex* page.

Note: A valid password is required to download the apps and on a recurring (annual) basis. When downloading for the first time and when prompted from within the app, return to the *mobileMicromedex* page in the Micromedex Internet application to obtain the current password.

APPENDIX A: DATABASE DESCRIPTIONS

Micromedex publishes clinical decision support databases and tools. Micromedex® provides a wide range of databases tailored to meet the needs of clinicians and healthcare professionals, including information related to drugs, acute care, toxicology, complementary and alternative medicine, and patient education.

Micromedex® Databases

Alternative Medicine for Patient

Alternative Medicine Information

- Summary Alt Med Info
- In Depth Alt Med Info
- Alt Med Consults
- Alt Med Protocols
- Alternative Medicine Reactions

Complete Drug Interactions

Complete IV Compatibility with Trissel's 2™

Detailed Drug Information for the Consumer™

Disease Information

- Summary Disease Information
- Emergency Medicine
- Emergency Medical Abstracts
- General Medicine

DRUGDEX System

- Summary Drug Information
- Detailed Drug Information
- Drug Consults

Herbal Medicines: A Guide for the Health-Care Professional

IDENTIDEX System

Index Nominum

Italian Drug Database - Dialogo sui Farmaci

Lab Recommendations

Martindale: The Complete Drug Reference

P&T QUIK Reports

POISINDEX System

- Summary Toxicology Information
- Detailed Toxicology Information

Reproductive Effects

- REPROTEXT
- REPROTOX
- Shepard's
- TERIS

TOMES System

- HAZARDTEXT
- INFOTEXT
- MEDITEXT

Alternative Medicine for Patient

Patient Education for Complementary and Alternative Medicine

As part of the Complementary and Alternative Medicine (CAM) Series, Alternative Medicine for Patient documents offer fully referenced patient counseling materials, written and peer reviewed by representatives from both conventional Western medicine and the alternative medicine communities.

What's in Alternative Medicine for Patient?

- Dietary Supplement documents
- Disease state/Medical condition documents
- Therapy documents

Dietary Supplement

documents

Dietary supplement documents provide concise information on indications, dosage, storage, interactions, side effects and warnings associated with the most frequently used herbal medicines, vitamins, minerals, and other CAM-related substances. Disease States/Medical Condition documents

These documents provide information on common diseases or medical conditions and how to treat them using CAM therapies. A description of the condition, causes, signs and symptoms, wellness recommendations, and complementary treatments are presented.

Therapy documents

Therapy, or modality documents, offer overviews on biofeedback, aromatherapy, acupuncture, and other frequently used CAM therapies and treatments.

Alternative Medicine Information

Herbal and Dietary Information

Part of the Complementary and Alternative Medicine (CAM) Series, Alternative Medicine Information offers evidence-based, clinical information on herbal, vitamin, mineral and other dietary supplements. The unbiased information is peer reviewed by a team of experts from both alternative medicine and traditional medicine communities. Editorial board members performing the reviews include MDs, DOs, RPhs, RNs, and NDs.

What's in Alternative Medicine Information?

- Evaluations
- Consults
- Protocols

Summary Alt Med Info

Summary Alt Med Info provides brief highlights of dosing, indications, contraindications, adverse effects, drug interactions, therapeutic class, pregnancy, and lactation for herbals, vitamins, minerals and other dietary supplements. The documents deliver answers quickly and efficiently. They link directly to more in-depth information in In Depth Alt Med Info documents.

In Depth Alt Med Info

In Depth Alt Med Info monographs appear in a standardized format that allows you to easily find the information you need. Specific topics include the following:

- Dosing Information

- Synonyms
- Pharmacokinetics
- Cautions (contraindications, adverse reactions, drug interactions)
- Place in therapy
- Mechanism of Action
- Therapeutic Uses
- Comparative Efficacy

Alt Med Consults

Alt Med Consults provide crucial information of interest to those needing information on herbal medicines and other dietary supplements. Topics include FDA warnings, pregnancy risk categories, and guidelines on dosing, safety and efficacy issues.

Alt Med Protocols

Provides practical advice to help you integrate complementary and alternative medicine into clinical practice.

Every day healthcare professionals are being asked to combine alternative medicine therapies with more traditional treatment practices. Alt Med Protocols provides complementary and alternative medicine (CAM) information and recommends methods for successfully blending CAM therapies with conventional medicine to offer patients a full range of options and help optimize their treatment outcomes.

Alternative Medicine Reactions

Contains easy-to-understand materials to help you educate patients about potential herbal & dietary supplement interactions

Increased use of herbals and dietary supplements means increased risk of harmful interactions. Without knowledge of the possibilities, inadvertent mixing of medications can result in adverse drug events or decreased efficacy. Alternative Medicine Reactions discusses the potential for interactions between alternative medicines and other drugs, dietary supplements, food, alcohol, and tobacco. Designed to help educate patients, supporting evidence and advice about what to do if experiencing an interaction are included.

Complete Drug Interactions

Drug Interactions

Complete Drug Interactions allows clinicians to check for interacting drug ingredients, their effects, and their clinical significance. It provides drug-drug, food-drug, drug-allergy, drug-alternative medicine, drug-ethanol, drug-laboratory, drug-tobacco, drug-pregnancy, and drug-lactation interactions and screens for ingredient duplication. The tool screens for therapeutic duplication of ingredients in the terms entered and identifies ingredients or products that are therapeutically antagonistic. However, please note that not all additive adverse effects or therapeutic antagonist effects are included in the tool.

Complete Drug Interactions information is drug-specific rather than class-specific, although many drug-specific interactions are included for known or suspected interactions based on class characteristics or metabolic activity. The specificity to individual drugs is helpful for accurate interpretation of interaction data. The program is able to distinguish between and equate trade names and generic drug names, eliminating possible duplication of interaction data on the page. A large number of concurrent clinical conflicts can be reviewed, and the

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response speed of this database demonstrates negligible degradation in data retrieval as the number of drugs being screened is increased.

Complete IV Compatibility - Trissel's™ 2 Clinical Pharmaceutics Database

- Features Trissel's 2™, the latest database from the ultimate authority on IV compatibility - Lawrence Trissel, MS, FASHP
- Enhances patient safety by pinpointing potentially lethal combinations
- Supports confident decisions with multiple studies and full study information including manufacturer, concentration, stability, and other conditions
- Helps clinicians interpret conflicting compatibility results by identifying contributing factors
- Includes 600 unique drugs and solutions
- Over 50,000 compatibility results
- Provides solution, Y-Site, syringe, and admixture compatibility information
- Includes TPN/TNA data
- Allows for either single or multiple drug searches

Detailed Drug Information for the Consumer™

Easy-to-understand, in-depth materials to help educate your patients about medications and their proper use. Today's patients are informed patients. Now you can give them an educational resource to match their proactive role in their care.

Detailed Drug Information for the Consumer™ - Drug Information in Lay Language provides patient-oriented drug information to help patients understand and successfully follow their drug regimens. Written at a 12th-grade literacy level, documents provide greater detail than most patient education leaflets and include brand names, descriptions, proper use, precautions, and side effects. Instructions for how to handle missed doses are included, as are guidelines for when to seek medical assistance or supervision.

Disease Information

Summary Disease Information

Summary Disease Information provides brief highlights of treatment, diagnosis, and key point information. The documents deliver answers quickly and efficiently. They also link directly to the more in-depth Disease Emergency Medicine and Disease General Medicine documents.

Disease Emergency Medicine

Comprehensive source of urgent and acute care information

Disease Emergency Medicine provides actionable information extracted from an extensive library of medical journals. With over 40,000 key terms and synonyms, Emergency Medicine helps clinicians quickly access current and crucial data organized by both condition and diagnosis.

Disease Emergency Medicine includes:

Emergency and Acute Care Summaries and detailed information on emergency conditions and treatments covering:

- Treatment
- Diagnosis
- Key Points

Emergency Medical Abstracts

EMA from Rick Bukata, MD and Jerry Hoffman, MD - a definitive source of literature review covering a broad scope of topics.

Disease General Medicine

Evidence-based, current disease information

Disease General Medicine supports disease management and treatment decisions in ambulatory and inpatient care settings.

General Medicine content enables clinicians to quickly reference the most current treatment of choice information at the point of care to help minimize errors, prevent unnecessary tests and procedures, reduce treatment costs, and improve patient outcomes.

Each General Medicine document covers:

Management highlight	Prognosis
Background	Advising the Patient
Diagnosis	Follow-up
Treatment	Prevention and Screening
Complications	Key References
Special Circumstances	Literature Cited
When to Consult or Refer	Tables and Images

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DRUGDEX System

Detailed Drug Information

Drug & Pharmaceutical Information

Designed to deliver unbiased drug information for those who prescribe, order, dispense, or administer medications, the DRUGDEX System provides independently reviewed data gathered from major drug centers and pharmacology services worldwide. FDA-approved and investigational drugs, along with over-the-counter and non-U.S. preparations, are covered with regard to dosage, pharmacokinetics, cautions, interactions, clinical applications, and comparative drug efficacy. Information is reviewed by the Micromedex editorial board and can be retrieved by generic name, manufacturer brand name, or indications.

What's in DRUGDEX?

DRUGDEX includes the following modules:

- Drug Evaluations
- Drug Consults
- Product Index
- Summary Drug Information

Summary Drug Information

Summary Drug Information provides brief highlights of dosing, drug interactions, adverse effects, pregnancy warnings, indications, cautions, therapeutic class, and brand information. The content provides answers quickly and efficiently. The documents also link directly to more in-depth DRUGDEX Detailed Drug Information (available only with a current DRUGDEX subscription).

Drug Evaluations

Drug evaluation monographs appear in a standardized format that allows you to easily find the information you need. Specific topic areas include the following:

- Dosage
- Pharmacokinetics
- Interactions
- Cautions
- Interactions
- Adverse side effects
- Contraindications/precautions
- Comparative drug efficacy
- Clinical applications
- Comparative drug efficacy
- Indications
- Therapeutic uses
- Generic names
- Indications
- Adverse side effects

Drug Consults

Drug Consults are evidence-based, fully-referenced articles covering drug therapies and drug guidelines. Some Drug Consults present patient related, referenced consultations with case histories. They are also an excellent resource for information on herbal medications, medical and surgical materials, excipients, drugs of abuse, and health foods. Drug Consults are provided for investigational, international, FDA-approved, and over-the-counter preparations.

DRUGDEX Product Index

Product documents offer comprehensive search results listing trade names, manufacturers, and dosage forms for investigational, international, FDA-approved, and over-the-counter preparations.

Herbal Medicines: A Guide for the Health-Care Professional

Invaluable reference for everyone interested in herbal medicines and their uses

While the use of herbal remedies has dramatically increased, the availability of actual information about such substances has not. Herbal products are not regulated in the same manner as drugs, so credible, proven data about them is scarce. As part of the International Drug content in Micromedex, *Herbal Medicines: A Guide for Health-Care Professionals*, published by the Pharmaceutical Press, London, UK, presents fully referenced information to assist with the identification, application, safe use, and assessment of commonly found herbal medicines. Its quick, easy-to-access content addresses pharmacological actions, side effects, contraindications, and safety and efficacy issues.

IDENTIDEX System

Tablet & Capsule Identification

The IDENTIDEX database identifies pharmaceutical tablets and capsules by imprint code and secondary characteristics, such as color and shape. Prescription and over-the-counter drugs (both trademarked and generic) are listed, along with manufacturers' telephone numbers and logo descriptions. Many international and street drugs are included, as is an extensive index of drug-related slang terms.

What's in IDENTIDEX?

IDENTIDEX identifies substances from unmarked containers in emergency situations. It includes prescription and nonprescription drugs with information about the manufacturer and provides an extensive library of information on street drugs and slang terms. IDENTIDEX documents follows this standard outline:

- Imprint code
- Color
- Dosage form
- Active ingredients
- Manufacturer
- AAPCC code

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Index Nominum

Recognized worldwide, Index Nominum is an international drug directory providing access to over 5,300 substances and derivatives, more than 12,800 synonyms, and over 41,800 tradenames from more than 45 countries.

The Micromedex version of Index Nominum in Micromedex, edited by the Wissenschaftliche Verlagsgesellschaft, provides electronic access to an international drug directory of generic substances, drug tradenames, synonyms, chemical formulas, therapeutic classes, and manufacturer information. Designed to meet the drug information needs of drug and poison information centers, pharmacists, physicians, research and medical centers, pharmaceutical companies and libraries, the system presents area-specific information from more than 45 countries for preparations used in human and veterinary medicine.

Index Nominum enables users to locate information by entering a substance name, therapeutic category, brand name, synonym, chemical name, manufacturer name, or country as the keyword or search term. Each monograph provides detailed information about a drug's name and synonyms, chemical structure diagrams, and a list of manufacturers. Name and address information enables the user to conveniently identify manufacturers worldwide.

Index Nominum contains:

- Drug tradenames
- Official and unofficial synonyms
- Substances and derivatives
- Manufacturer names and addresses
- Therapeutic classes
- CAS numbers
- ATC codes
- Chemical structures
- Molecular weights

Italian Drug Database - Dialogo sui Farmaci

The Italian Drug Database from Dialogo sui Farmaci is a compilation of all pharmaceuticals marketed and approved for use in Italy - currently at approximately 16,000 products and is updated on a monthly basis. The database includes both products with pharmaceutical active ingredients as well as over-the-counter drug products. Bulk products such as Ringer's Lactate and Saline solutions are also included in the database.

The following information is available in Dialogo sui Farmaci product documents:

- MINSAN Code - code for each medicine, given by the Ministry of Health
- Brand Name
- Form, strength, packaging and route of administration
- ATC codes
- Italian and English INN
- Price
- Reimbursement class

- Class A - Essential drugs and those for chronic diseases
These drugs are fully reimbursed by the National Health Service (NHS).
- Class H - Drugs that are fully reimbursed and must be used only in hospitals
- Class C - Drugs not reimbursed by the NHS
Among Class C drugs are:
SOP: drugs that can be sold without prescription but for which advertisement is not allowed.
OTC: drugs sold without prescription. Advertisement is allowed.
- Limitative note
- Distribution criteria
- Registry
- Prescribing criteria
- Authorized prescriber
- Drug manufacturer
- Off-patent drugs
- Italian indications

Lab Recommendations

Lab Recommendations is a clinical laboratory database which presents the most critical information about which laboratory tests are appropriate for a given condition, interpretation and management of results, normal ranges, test methodology, and other laboratory related information.

Lab Recommendations will:

- Describe which tests are appropriate for a given indication
- Help streamline workflow by providing actionable information that eliminates the need to call the lab or library with questions about administering and interpreting labs
- Aid in the interpretation of test results
- Link to summary level drug, disease, and toxicology documents for more detailed information on the topic or substance
- Provide evidence-based testing information on how and when to monitor drug levels, therapeutic levels and side effects
- Provide normal or therapeutic range to enable appropriate triage of lab test results
- Provide information on how to interpret unfamiliar tests when evaluating patients
- Provide information on how to collect samples and submit tests

Martindale: The Complete Drug Reference

This electronic version of the highly respected MARTINDALE reference book published by The Royal Pharmaceutical Society of Great Britain offers extensive, unbiased, evaluated information on worldwide drugs and related substances. It provides quick and easy searching or pharmacological and therapeutic data, synonyms, and manufacturers' brand names.

What's in MARTINDALE?

The MARTINDALE database contains information on drugs in clinical use worldwide, as well as selected investigational and veterinary drugs, herbal medicines, pharmaceutical excipients, vitamins and nutritional agents, vaccines, radiopharmaceuticals, contrast media and diagnostic agents, medicinal gases, drugs of abuse and recreational drugs, toxic substances, disinfectants, and pesticides. Sections of text summarize the relevant information, followed, if appropriate, by referenced abstracts or reviews that expand upon the details given in the text or add additional information. The contents may be categorized as follows:

- Generic drug names, including U.S., British, and international approved names
- Synonyms/chemical names
- Molecular formula/molecular weight, CAS registry numbers
- Pharmacopeias
- Physical characteristics
- Adverse effects and their treatment
- Precautions, including contraindications
- Interactions
- Pharmacokinetics
- Uses and Administration, including pharmacology and dosage
- Preparations and brand names

Preparations summaries of more than 70,000 proprietary products from 17 countries are included. Information is provided on brand name, manufacturer, country of origin, active constituents, and licensed uses. Cross-references link each ingredient to an appropriate drug monograph when possible.

In addition, more than 600 disease treatment reviews offer overviews of the diseases and drugs used in their treatment, along with key references. Cross-references are provided between disease reviews and relevant drug monographs.

MARTINDALE coverage includes:

- More than 5,300 drug monographs
- Over 70,000 proprietary preparations
- At least 6,000 manufacturers
- More than 600 disease treatment reviews
- Over 200 herbal medicine monographs
- At least 5,000 herbal preparations

P&T QUIK Reports

P&T QUIK Reports assists pharmacists in preparing for Pharmacy and Therapeutics Committee meetings. P&T QUIK contains monographs on drugs being considered by P&T Committees for placement on the hospital formulary. Included are drugs recently approved by the FDA, those of intense interest, or drugs suggested by subscribers. Twelve monographs are added each quarter, and the most recent 24 months of monographs are available.

POISINDEX System

Commercial, Pharmaceutical, Biological Substance Identification & Management

The POISINDEX System identifies ingredients for hundreds of thousands of commercial, pharmaceutical, and biological substances. Each substance is linked to one or more management documents providing information on clinical effects, range of toxicity, and treatment protocols for exposures involving the substances.

What's in POISINDEX?

The system contains the following modules:

- Product/Substance Identification
- Toxicological Managements
- Summary information

Product/Substance Identification:

POISINDEX Product/Substance Identification contains information on over 1,000,000 different household items, such as:

- Common household products (cleaners, personal care, insect protection)
- Industrial chemicals (manufacturing agents)
- Industrial products (cleaners, protective agents)
- Pharmaceutical products (prescriptions, generic, trade, OTC, veterinary)
- Biological entities (botanic, zoologic, food poisoning)

Summary Toxicology Information

Summary Toxicology Information provides brief highlights of clinical effect, treatment, and range of toxicity information. The content delivers answers quickly and efficiently. The documents also link directly to the more in-depth POISINDEX System Toxicological Managements (available only with a current POISINDEX subscription).

Toxicological Managements:

Toxicological Managements offers over 850 detailed courses of treatment for someone exposed to a substance.

Reproductive Effects

Reproductive Risk Information

Reproductive Effects is a unique collection of reproductive risk information databases. It provides information covering full-range health effects that is helpful when assessing reproductive risks of drugs, chemicals, and physical and environmental agents. Risks to females, males, and unborn children are discussed.

What's in Reproductive Effects?

Reproductive Effects can define potential problems for women, men, and the effect on unborn children. It also can define risks associated with drugs and other substances, both legal and illicit. It suggests treatment plans to minimize risks during pregnancy.

Reproductive Effects includes the following modules:

- REPROTEXT Database
- REPROTOX Reproduction Hazard Information
- Shepard's Catalog of Teratogenic Agents
- TERIS Teratogenic Information System

REPROTEXT Database

Reproductive Hazard Reference

REPROTEXT includes information such as the following:

- Presents in-depth reviews on full-range health effects of industrial chemicals commonly encountered in the workplace
- Covers physical agents including heat, noise, and radiation
- Describes effects on human reproduction of acute and chronic exposures to substances, as well as reproductive, carcinogenic, and genetic influences
- Includes unique Dual Health Hazard Ranking System for general toxicity, and "grade-card" scale suggesting level of reproductive hazard
- Helps set risk reducing priorities by combining hazard rankings with exposure estimates
- Assists with development of programs to improve employee protection guidelines

REPROTOX

Reproductive Hazard Reference

Developed by the Reproductive Toxicology Center, Columbia Hospital for Women Medical Center, Washington, D.C.

REPROTOX includes information such as the following:

- Provides information regarding the impact of the physical and chemical environment on human reproduction and development
- Covers all aspects of reproduction including fertility, male exposures, and lactation
- Discusses reproductive influences of industrial and environmental chemicals; prescription, over-the-counter, and recreational drugs; and nutritional agents
- Includes latest, most relevant teratology articles

Shepard's

Catalog of Teratogenic Agents

Developed by Dr. Thomas H. Shepard, Professor of Pediatrics, University of Washington, Co-authored by Dr. Ronald J. Lemire, Professor of Pediatrics, University of Washington; Director, In-Patient Services at Seattle Children's Hospital and Regional Medical Center

Shepard's includes information such as the following:

- Electronic version of Shepard's Catalog
- Up-to-date information on teratogenic agents including chemicals, food additives, household products, environmental pollutants, pharmaceuticals, and viruses
- Includes research methods, results, and citations from both Japanese and Russian literature

TERIS

Teratogen Information System

Developed by the University of Washington

TERIS includes information such as the following:

- Current information on the teratogenic effects of drugs and environmental agents
- Agent summaries derived from thorough literature reviews rate reproductive risk and explain data used to determine the rating

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TOMES System

Handling hazardous chemicals is routine in many workplaces. The TOMES System provides the critical medical and hazard data needed for immediate, effective response to exposure and accidents in chemical handling. Designed to help reduce the risk of exposure and injury, the TOMES System provides:

- Treatment guidelines for acute chemical exposures
- Evacuation procedures
- Chemical disposal information

General areas unrelated to chemicals are addressed such as ergonomics and human health risk assessment. The System's three databases - MEDITEXT, HAZARDTEXT, and INFOTEXT - are integrated to ensure quick access to the fully reviewed, referenced information. The

TOMES System includes:

Hazard Management Information

Hazard Management Information documents can help you understand the issues related to environmental impact including how to implement emergency reaction to chemicals and their impact: Fire, Clean up, Personal protection. These documents also help you manage chemicals safely in the workplace.

INFOTEXT Documents

Infotext documents provide regulatory listings and other general health and safety data. Includes industry-related areas (not chemical-specific) including ergonomics, endocrine disruptors, and human health risk assessment.

Medical Management Information

The Medical Management Information monographs can help you evaluate issues associated with exposure. They deliver information on acute exposure, treatment, and adverse health effects.


APPENDIX B: BROWSER SETTINGS

Micromedex Solutions will no longer support Internet Explorer 11. For the best experience, we recommend using the latest browser versions of either Microsoft Edge or Google Chrome.

LOCALIZED LANGUAGE SUPPORT

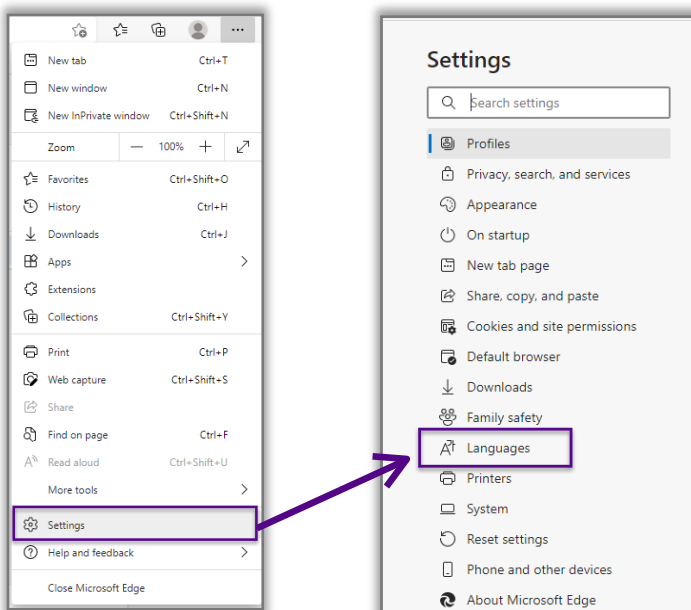
By modifying a few settings in your Internet browser, you can view some of the elements of the Micromedex® interface in your local language. These settings only impact certain buttons and descriptions on the interface; the content is not translated.

Setting Up Language Support in Microsoft Edge

1. Open **Microsoft Edge** browser.
2. Click the **Settings and more (Alt +F)** three dotted icon  seen on the right top corner of the page to access the Settings.



3. Select **Settings**. From the list of settings, Select **Languages**.

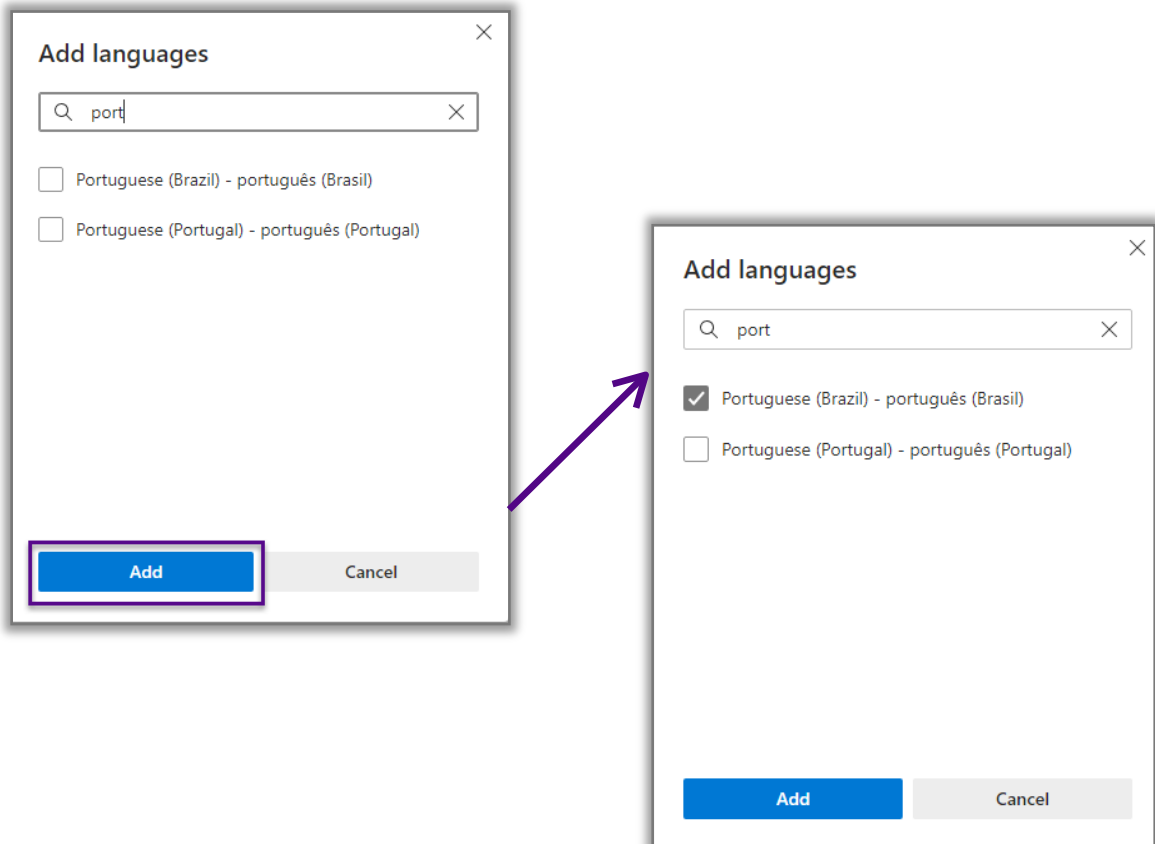


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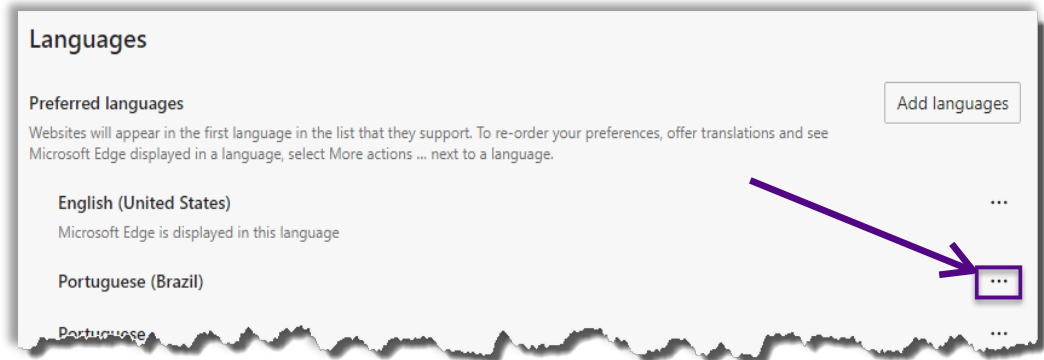
4. In the Languages settings page, click the **Add Languages** to add a language.




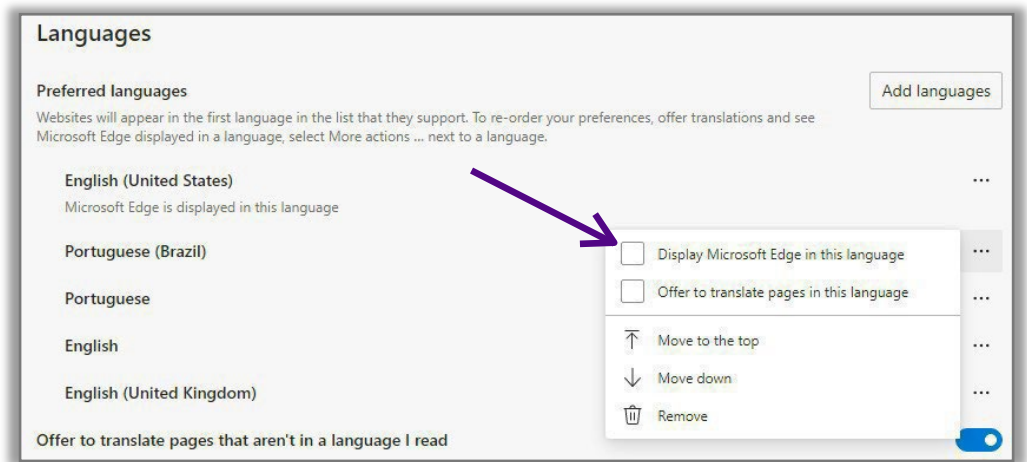
5. From Add languages, scroll to the desired language, select the check box to the corresponding language and then click **Add**. For a quick search, enter the first few letters related to your search in the search filter. The search filter displays the result related to your search, select the checkbox, and then click **Add**.



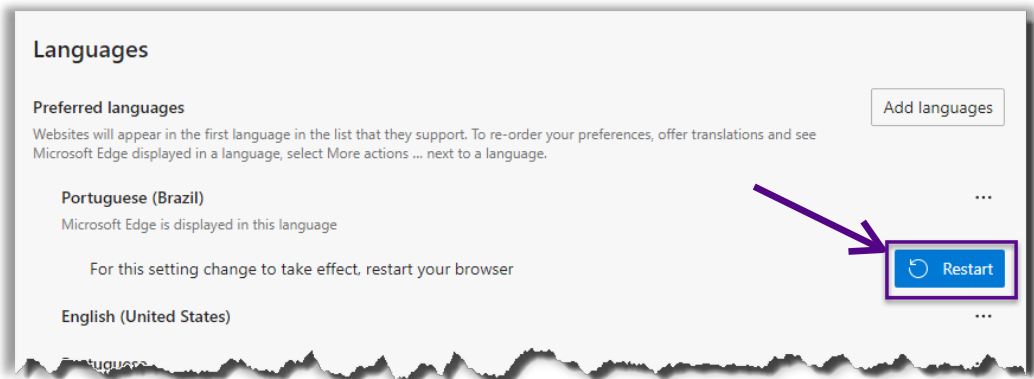
- Selected language will be listed under the **Preferred languages**.



- Once the added languages, are seen in the preferred languages. Click the three dotted icon  seen to the right of the language to make any changes to the preferences. To set the preferred language as default, select the checkbox **Display Microsoft Edge in this language**.

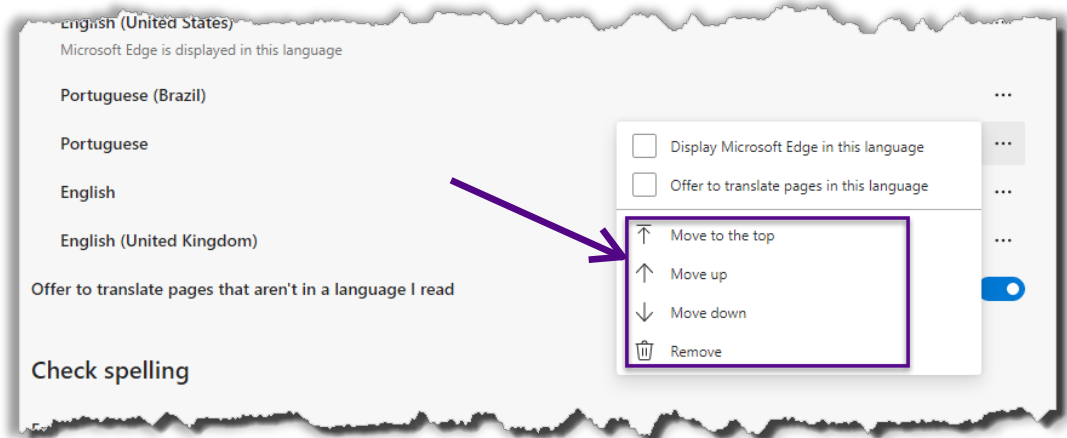


- The moment you select the **checkbox Display Microsoft Edge** in this language, you need to restart the browser to apply the settings. Click **Restart** to apply the changes to the browser.

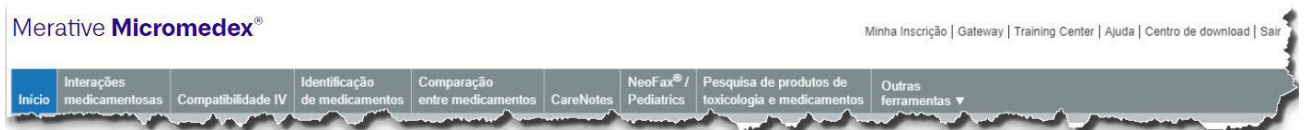


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9. Click **Move to the top**, **Move up** or **Move down** to change the order of the language. To remove languages, click **Remove**.

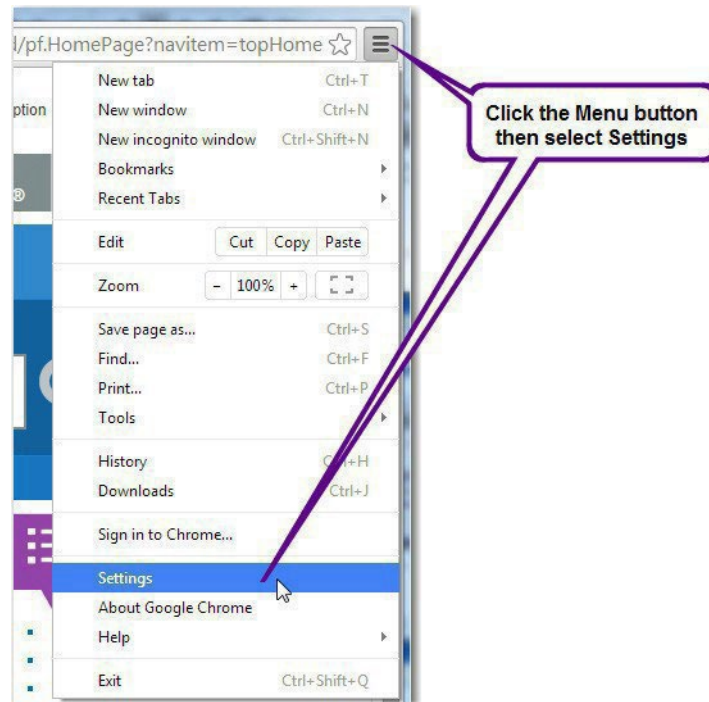


10. Move the cursor on or off **Offer to translate pages that aren't in a language I read** to translate the webpage to different languages. When this cursor is enabled, if you browse the webpage other than the preferred languages listed, then there will be shown an automatic translate pop-up with the language you choose to translate. The default preferred language will be selected in the pop up.
11. If you want the specific preferred language to have the automatic translate pop-up while browsing the webpage with that language, then for that language we need to select the **Offer to translate pages in this language** checkbox.
12. Open Micromedex. The default language is reflected in the user interface.

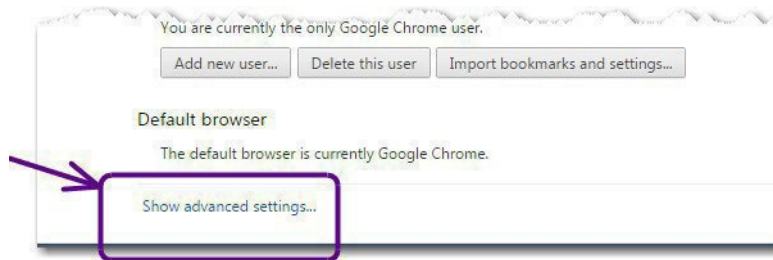


Setting Up Language Support in Google Chrome

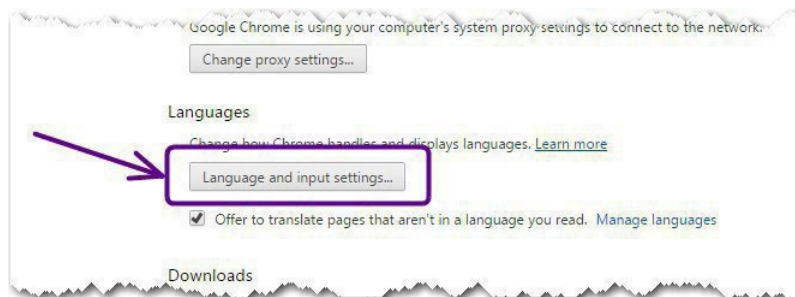
1. Click the **Menu** button in the upper right corner of the browser and select **Settings**.



2. At the bottom of the page click **Show advanced settings...**

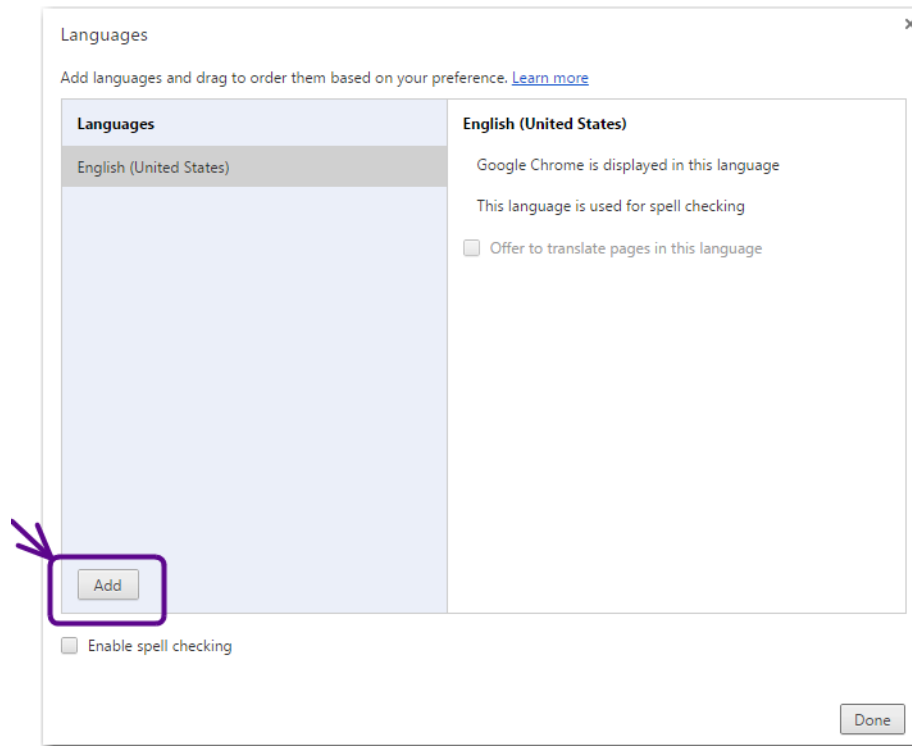


3. Scroll down and click the **Language and input settings...** button.



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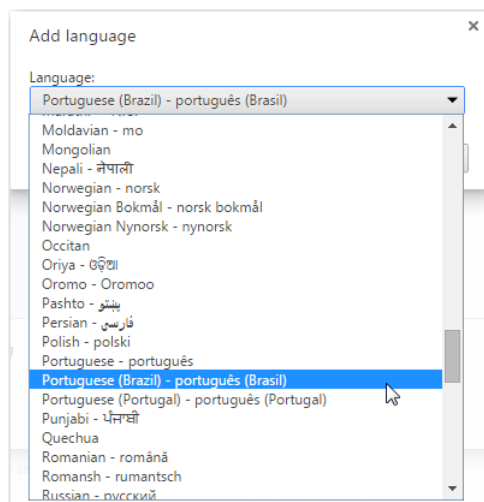
4. On the *Languages* screen click the **Add** button.



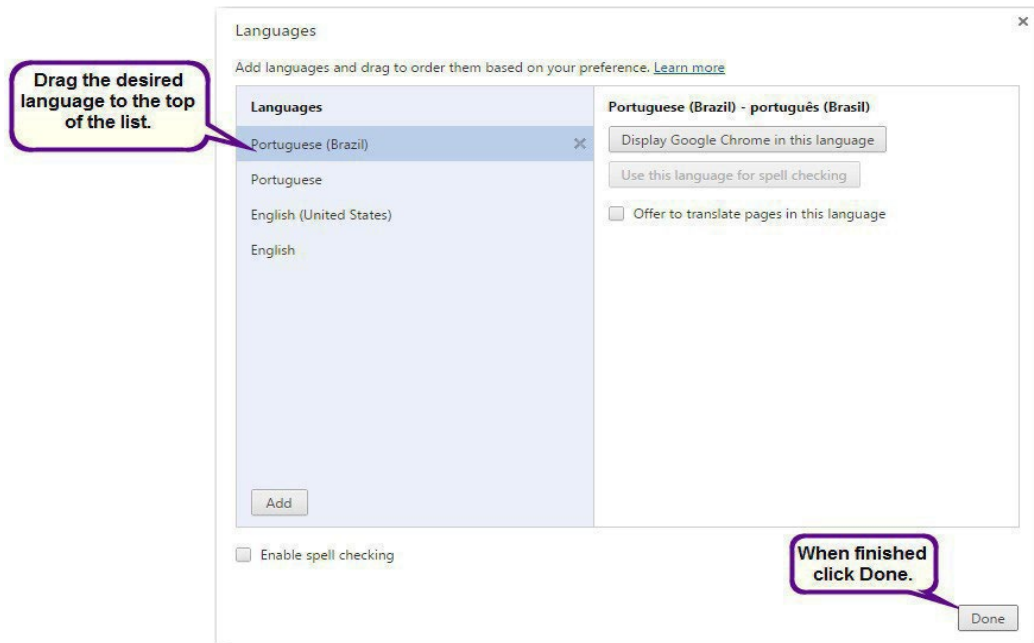
5. Select a language from the *Add language* drop-down and click **OK**.

Note: The following languages are supported:

- Chinese (simplified)
- Chinese (traditional)
- German - Deutsch
- Italian - italiano
- Portuguese (Brazilian) - portugues (Brasil)



- On the left side of the *Languages* screen highlight the language you selected in Step 5 and drag it to the top of the list. Then click **Done**.

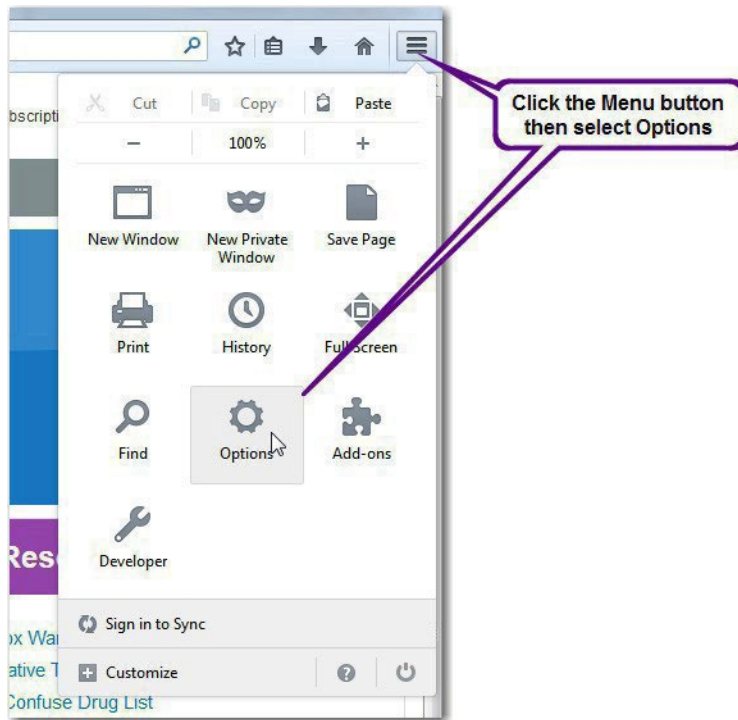


- Open Micromedex. The default language is reflected in the user interface.

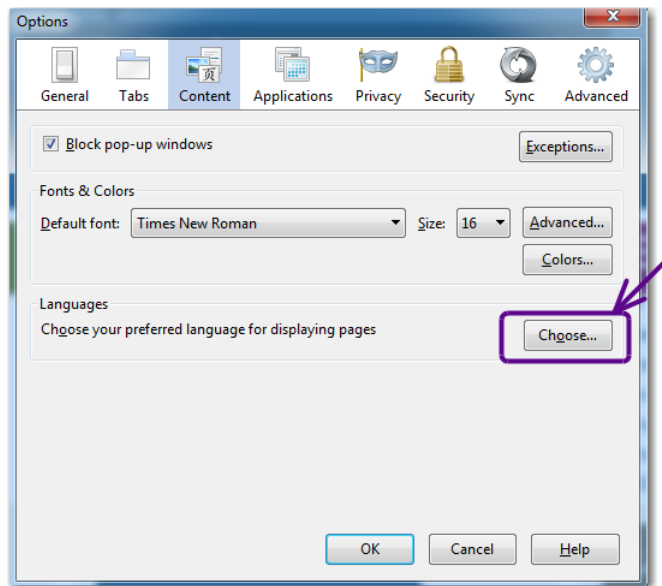


Setting Up Language Support in Mozilla Firefox

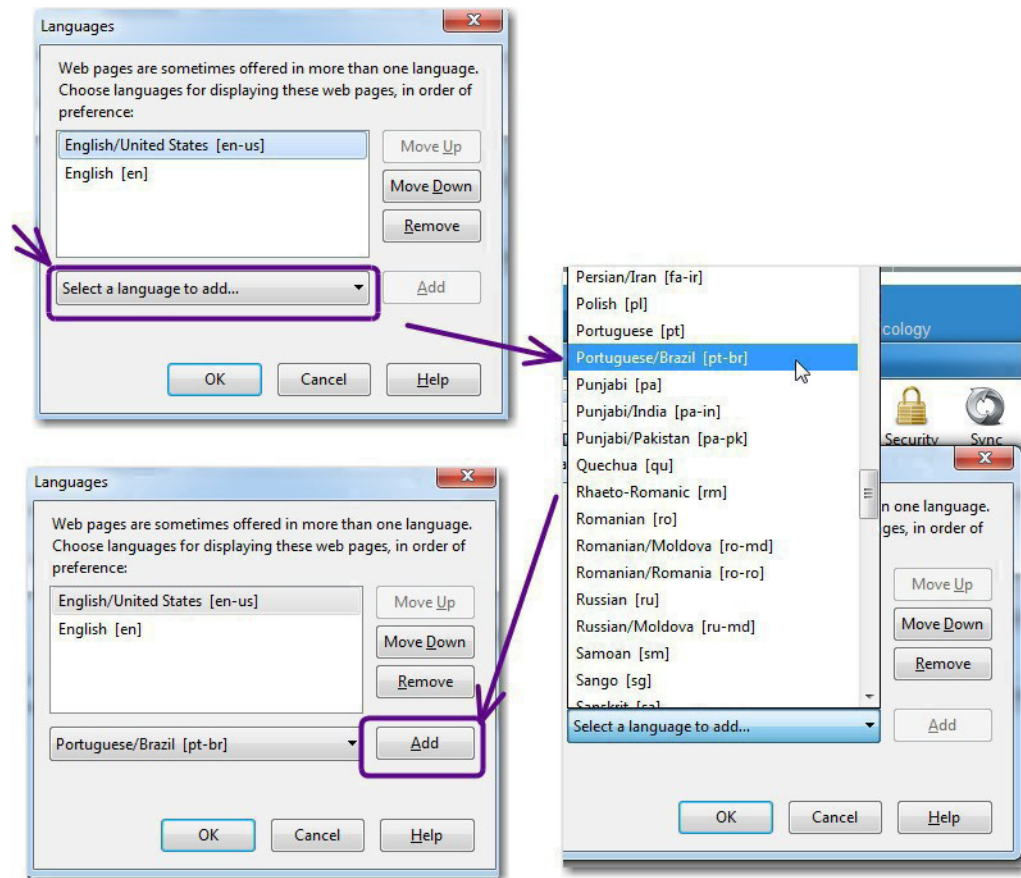
1. Click the **Menu** button in the upper right corner of the browser and select **Options**.



2. On the *Options* dialog next to Languages click the **Choose...** button.



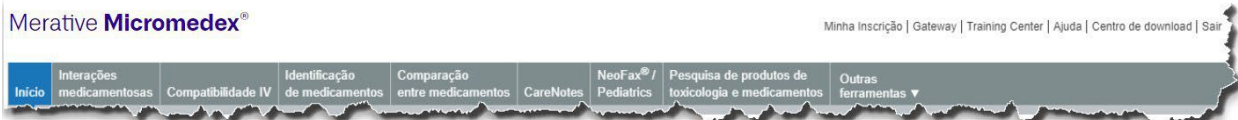
- From the *Language* dialog click the **Select a language to add...** drop-down, select a language, and click **Add**.



Note: The following languages are supported:

- Chinese/China [zh-cn]
- Chinese/Taiwan [zh-tw]
- German/Germany [de-de]
- Italian [it]
- Korean/South Korea [ko-kr]
- Portuguese (Brazilian) = Portuguese (Brazil) [pt-BR]

- Click **OK** until you return to the browser.
- Open Micromedex. The default language is reflected in the user interface.



MICROMEDEX® SEARCH ACCELERATOR

Enjoy fast and easy access to clinical information in Micromedex from any browser-based program, using the Micromedex Search Accelerator. With some simple modifications to your Internet browser settings, you can search Micromedex from other web applications (e.g., an EHR or HIS) or Internet browser sessions without having to first navigate to the Micromedex home page.

With an active Micromedex session (authenticated via a User Name and Password or a recognized IP address), you can be anywhere on the Web and go directly to a search results page in Micromedex.

This value-added feature is similar to Search Providers and Accelerator add-ons widely available on the web. Microsoft Edge, Google Chrome, and Mozilla Firefox® all have this capability with some minor end-user browser configuration.


Micromedex® Search Accelerator Configuration

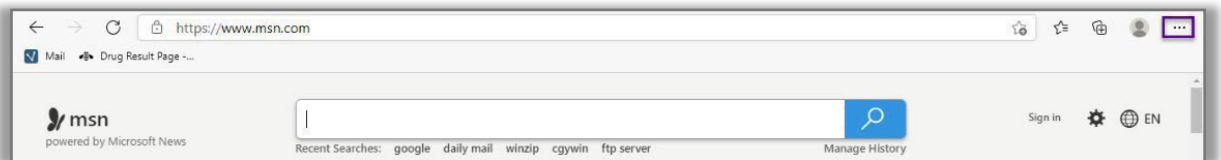
JUMP TO: [Google Chrome](#) | [Mozilla Firefox](#)

Microsoft Edge

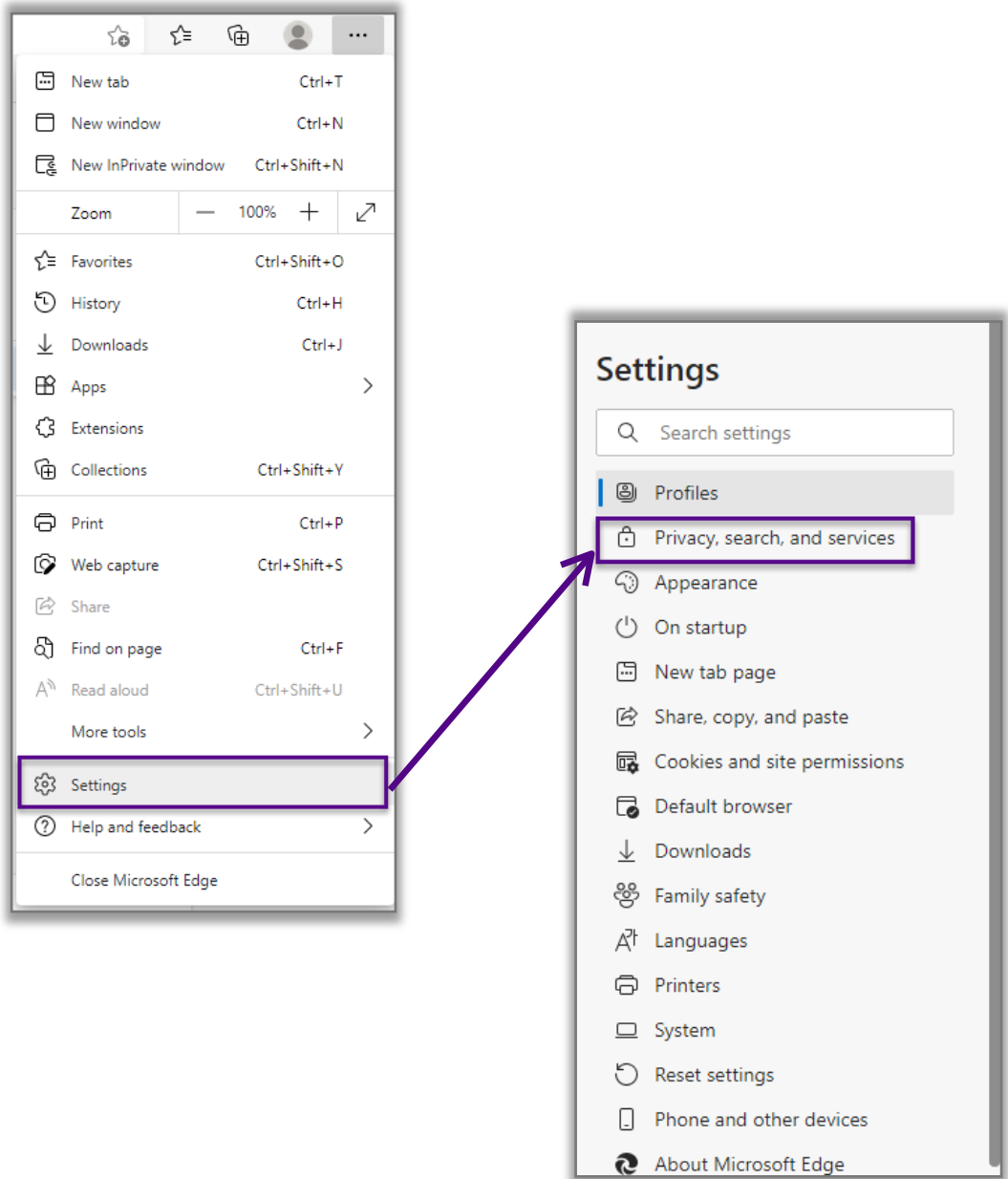
Please be aware, the installation, and workflow may vary slightly between latest versions of Microsoft Edge.

Adding Micromedex® Search Engine using Edge Browser

1. Click the **Settings and more** (Alt +F) three dotted icon  seen on the right top corner of the page to access the Settings.

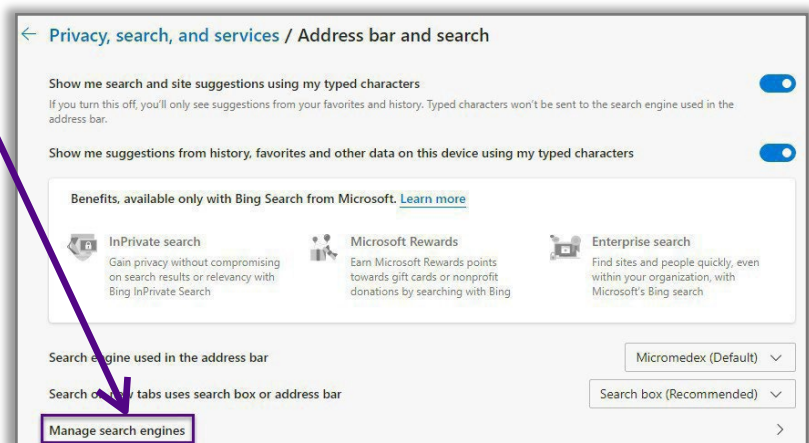
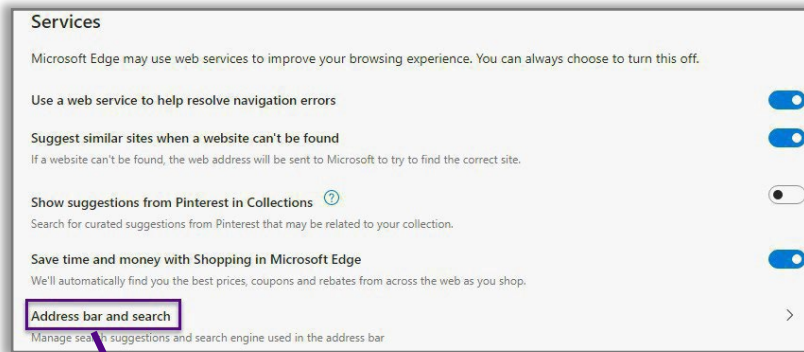


2. Select **Settings**. From the lists of settings, select **Privacy, search, and services**.

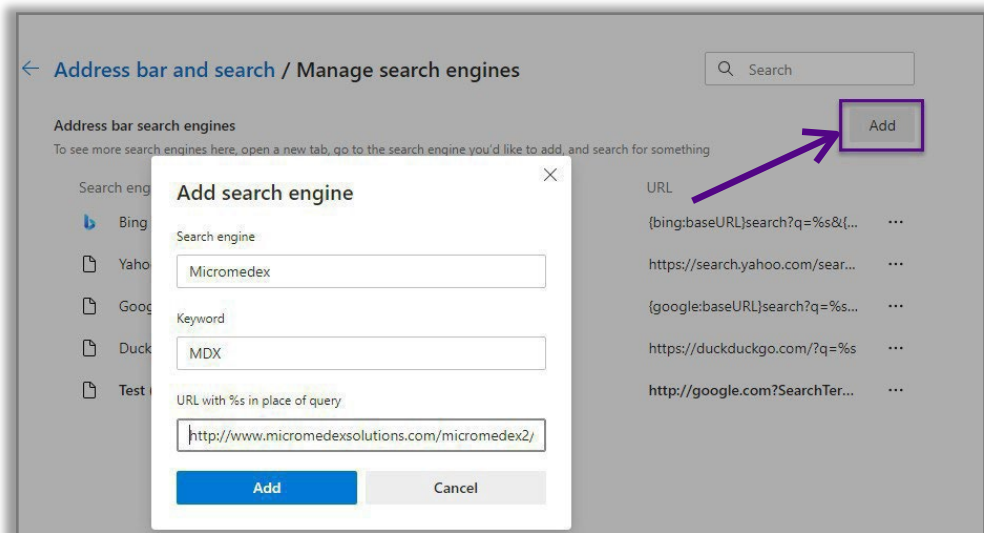


MICROMEDEX® - USER GUIDE

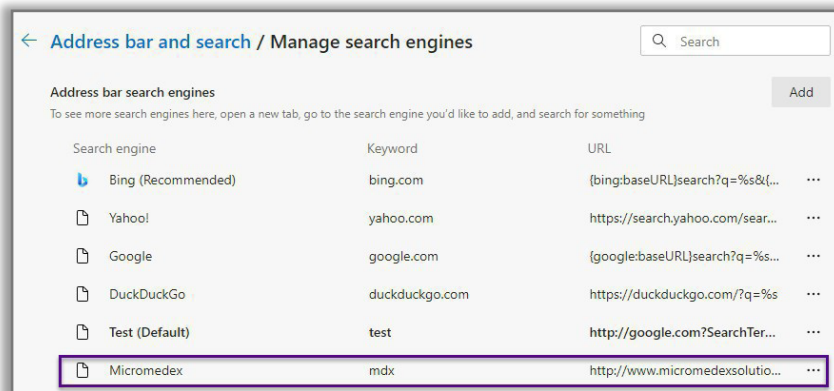
3. Click the **Address bar and search** link. Click the **Manage search engines**.



4. Click **Add** to add Micromedex as search engine.



- Micromedex is added to the list of existing search engines.



IP-Authenticated Users

The search should be seamless, requiring no additional steps or logins when searching using the search box.

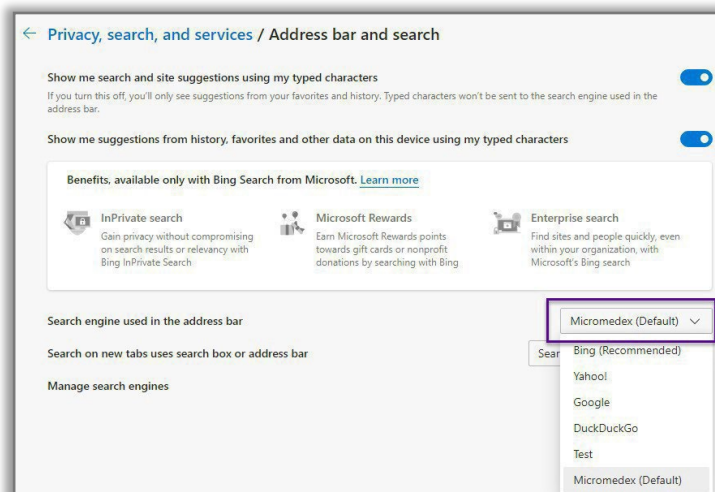
User Name and Password Users and Trusted source URL

You will be required to login to Micromedex before initiating searches from external web pages. To limit having to repetitively enter your User Name and Password, use the “Remember Password” option (cookies must be enabled in your browser). Provided your browser session remains active, you may search Micromedex from any website or tool without first visiting the Micromedex home page.

If you wish to designate Micromedex Search as your default search engine perform the following steps:

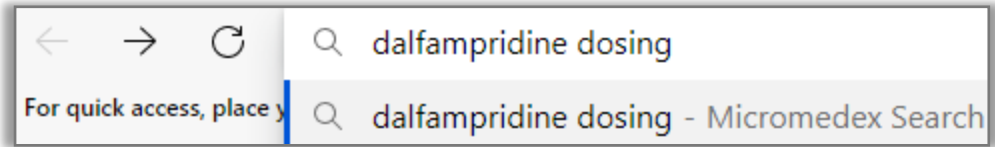
Designate Micromedex® Search as your Default Search Engine (Microsoft Edge)

- To set the Micromedex search page as the default search engine in the address bar. Click the **Address bar and search** link, select the drop-down arrow to Micromedex to set it as the default search engine.

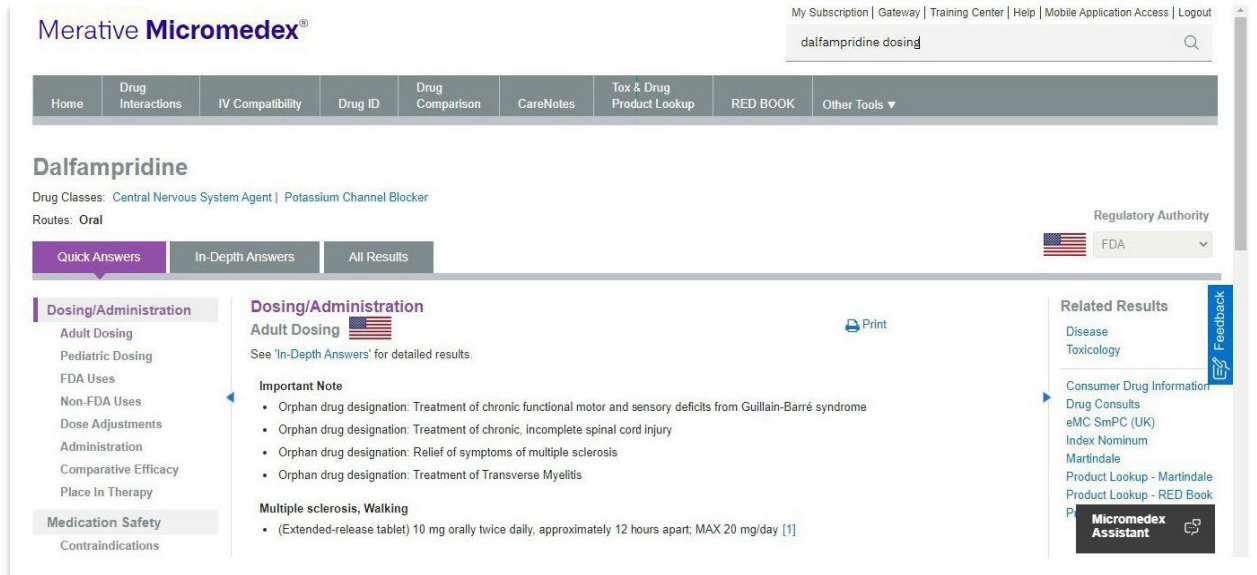


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2. Now the Micromedex search page is displayed as the default webpage. You can start your search by entering the name of the drug and click the search icon or press enter which navigates you directly into the Micromedex search results page.



3. Search results related to Dalfampridine drug will be displayed.

A screenshot of the Merative Micromedex search results page for "Dalfampridine". The page header includes the Merative Micromedex logo and navigation links such as "My Subscription", "Gateway", "Training Center", "Help", and "Mobile Application Access". A search bar at the top right contains the query "dalfampridine dosing". Below the header is a navigation menu with options like "Home", "Drug Interactions", "IV Compatibility", "Drug ID", "Drug Comparison", "CareNotes", "Tox & Drug Product Lookup", "RED BOOK", and "Other Tools". The main content area is titled "Dalfampridine" and lists drug classes ("Central Nervous System Agent", "Potassium Channel Blocker") and routes ("Oral"). There are tabs for "Quick Answers", "In-Depth Answers", and "All Results". The "Quick Answers" tab is active, showing a "Dosing/Administration" section with "Adult Dosing" selected. The "Adult Dosing" section includes an "Important Note" with three bullet points regarding orphan drug designations for Guillain-Barré syndrome, chronic incomplete spinal cord injury, multiple sclerosis, and Transverse Myelitis. Below this is a section for "Multiple sclerosis, Walking" with a bullet point detailing the dosing regimen: "(Extended-release tablet) 10 mg orally twice daily, approximately 12 hours apart, MAX 20 mg/day [1]". A "Print" icon is visible next to the "Adult Dosing" heading. On the right side, there is a "Related Results" sidebar with links to "Disease Toxicology", "Consumer Drug Information", "Drug Consults", "eMC SmPC (UK)", "Index Nominum", "Martindale", "Product Lookup - Martindale", and "Product Lookup - RED Book". A "Feedback" button is also present in the sidebar. The bottom right corner features a "Micromedex Assistant" button.

Google Chrome

Google Chrome supports adding search engines to the Google Omnibox. Google Chrome does not use the separate Search Provider box that is common to Microsoft® Edge and Mozilla Firefox®. Setup is fast and easy:

1. Open the Google configuration screen by selecting the ☰ icon in the upper-right, then select *Settings*.
2. Find the Search area of the settings screen and select **Manage Search Engines...**
3. On the Search Engines screen, scroll to the bottom of the screen to find the text boxes to enter the parameters of your new search:



4. From left to right, enter the name, Micromedex, a shortcut trigger word of your choice (e.g. MDX), and the following URL with **no spaces or line breaks**:

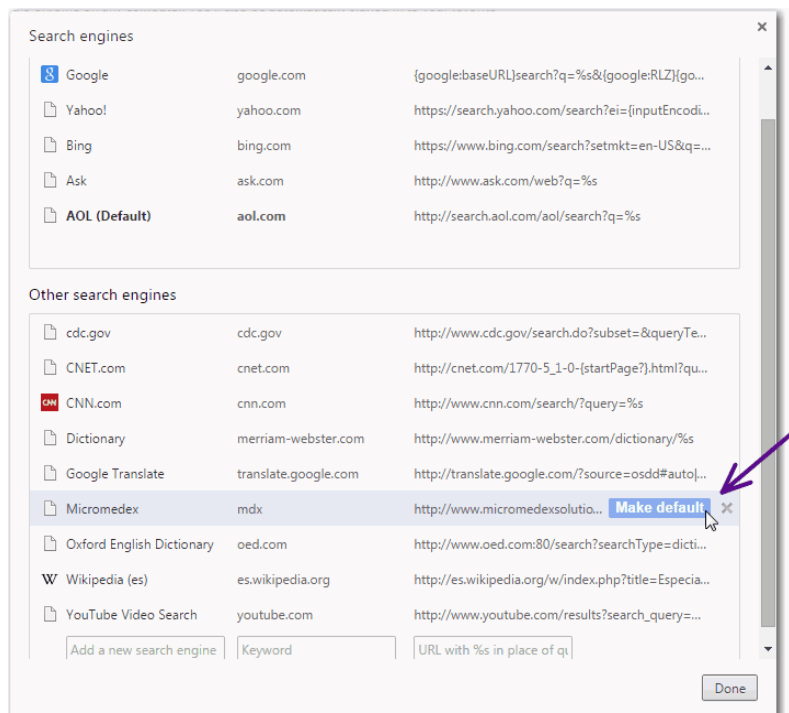
```
http://www.micromedexsolutions.com/micromedex2/librarian/deeplic
kaccess?SearchTerm=%s
```



WARNING

If you copy and paste the URL, a space may be inserted, which will prevent the Micromedex Search Accelerator from functioning.

5. Press the **Enter** key. Micromedex is added to the list of *Other search engines*.
6. Hover your mouse over Micromedex and click **Make default**.



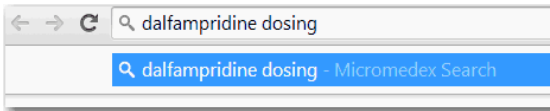
MICROMEDEX® - USER GUIDE

7. Click **Done**.

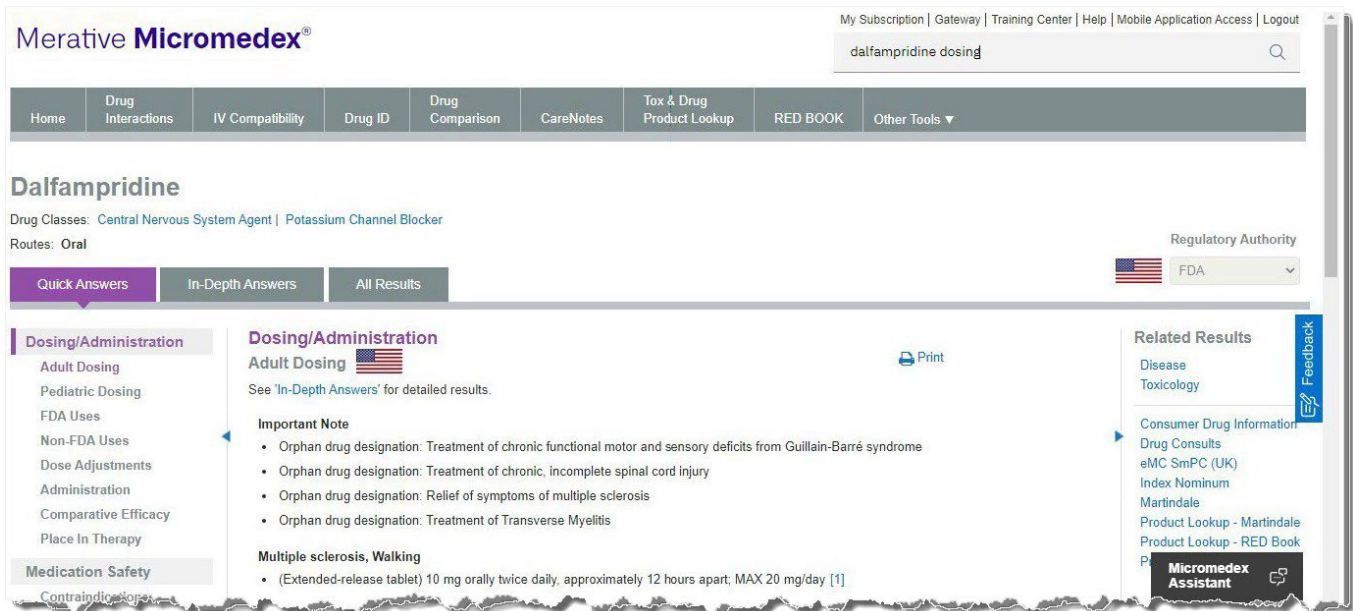
Note: If you choose to set Micromedex as the default search engine in Google Chrome, any terms entered into the Google Chrome Omnibox will search Micromedex first.

Search Accelerator Workflow (Google Chrome)

1. Type your search term(s) and press the **Enter** key.



2. In this example you will navigate directly to the Dosing section of the Micromedex Summary Drug Information monograph for Dalfampridine.

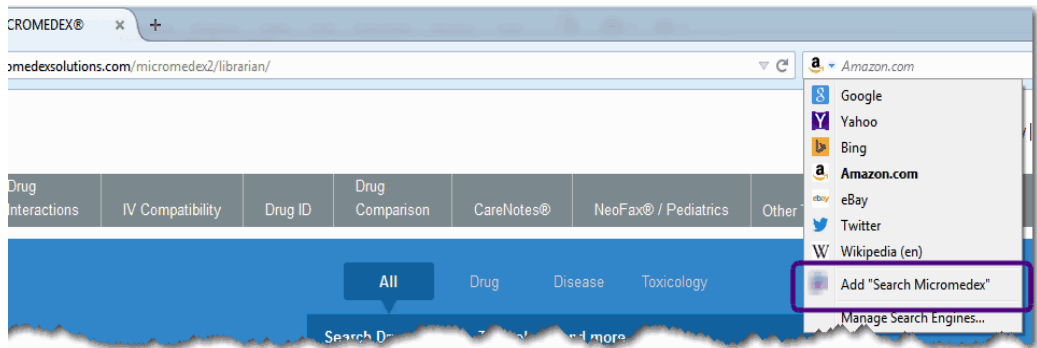
A screenshot of the Merative Micromedex website. The page title is "Dalfampridine". The search bar at the top contains "dalfampridine dosing". The navigation menu includes "Home", "Drug Interactions", "IV Compatibility", "Drug ID", "Drug Comparison", "CareNotes", "Tox & Drug Product Lookup", "RED BOOK", and "Other Tools". The main content area is titled "Dosing/Administration" and includes a sub-section for "Adult Dosing" with a US flag icon. The text under "Adult Dosing" says "See 'In-Depth Answers' for detailed results." Below this, there is an "Important Note" section with three bullet points: "Orphan drug designation: Treatment of chronic functional motor and sensory deficits from Guillain-Barré syndrome", "Orphan drug designation: Treatment of chronic, incomplete spinal cord injury", and "Orphan drug designation: Relief of symptoms of multiple sclerosis". There is also a section for "Multiple sclerosis, Walking" with one bullet point: "(Extended-release tablet) 10 mg orally twice daily, approximately 12 hours apart; MAX 20 mg/day [1]". The right sidebar contains "Related Results" with links to "Disease", "Toxicology", "Consumer Drug Information", "Drug Consults", "eMC SmPC (UK)", "Index Nominum", "Martindale", "Product Lookup - Martindale", and "Product Lookup - RED Book". At the bottom right of the sidebar is a "Micromedex Assistant" button. The top right of the page has links for "My Subscription", "Gateway", "Training Center", "Help", "Mobile Application Access", and "Logout".

An additional benefit of using Google Chrome is that it will retain search history, saving time on re-entry of terms as you begin to build a search history. However, you are not able to launch a search for Micromedex from the body of a web page as in Firefox.

Mozilla Firefox

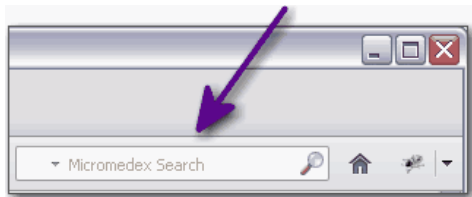
Micromedex can also be added as a search engine in Firefox, but it requires an “Add-on” to the browser. Follow the instructions below:

1. Download and install the Add to Search Bar add-on, available from the Mozilla Add-ons website: <https://addons.mozilla.org/en-US/firefox/addon/add-to-search-bar/>
 2. Login to Micromedex at: www.micromedexsolutions.com/micromedex2/librarian
 3. On the Micromedex home page, select the arrow in the right-hand search box in the header of the browser.
1. Select “Add Search Micromedex”.



Using Micromedex® as a Search Engine in Firefox

Once configured, a Micromedex Search is available from the search engine box in the upper-right corner of the browser. You can manage the priority of your search engines and establish a default from the drop-down.



With an active session in Micromedex and proper authentication, you can search without first visiting the Micromedex home page.

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The screenshot shows a web browser window with the URL `ampyra-hcp.com/hcp/home/`. The page features a navigation bar with links for "Request Form", "Download a Blank Prescription and Service Request Form", "Sign Up Here", and "Learn More". Below the navigation bar, there is a section titled "Indication" with the text: "AMPYRA® (dalfampridine) Extended Release Tablets, 10 mg is indicated as a treatment to improve walking in patients with multiple sclerosis (MS). This was demonstrated by an increase in walking speed in patients with multiple sclerosis." A right-click context menu is open over the word "dalfampridine", with a purple arrow pointing to the "Search Micromedex: Search for 'dalfampridine'" option. Other menu items include "Copy", "Select All", "View Selection Source", "Inspect Element (Q)", and "Inspect Element with Firebug". Below the "Indication" section, there is a "NEW SAFETY INFORMATION" section with the text: "Seizures have been reported in patients with a history of seizures and in patients without a history of seizures, and in patients with a history of seizures, 82 seizures were either reported or confirmed by a healthcare practitioner among 46,000 patients treated with AMPYRA." and "Anaphylactic reaction has been reported in patients with a history of seizures and in patients without a history of seizures. If an anaphylactic or other serious allergic reaction occurs, AMPYRA should be discontinued." Below this is an "IMPORTANT SAFETY INFORMATION" section with the text: "AMPYRA is contraindicated in patients with a history of seizures or with moderate or severe renal impairment (CrCl ≤50 mL/min)."

Note: Other web-based applications such as an HIS or EHR can also access Micromedex. Simply right-click on your selected terms and select the **Micromedex Search** option. Please note however that the Micromedex Search must be set as your default search engine.

APPENDIX C: MICROMEDEX® RED BOOK® - AWP POLICY

Revised: October 11, 2020

Average Wholesale Price (AWP) Policy

The Average Wholesale Price (AWP) as published by Micromedex is in most cases the manufacturer's suggested AWP and does not reflect the *actual* AWP charged by a wholesaler. Micromedex bases the AWP data it publishes on the following:

- AWP is reported by the manufacturer¹(1), **or**
- AWP is calculated based on a markup specified by the manufacturer. This markup is typically based on the Wholesale Acquisition Cost (WAC) or Direct Price (DIRP), as provided by the manufacturer, but may be based on other pricing data provided by the manufacturer, **or**
- Suggested Wholesale Price (SWP) is reported by the manufacturer

When the manufacturer does not provide an AWP, an SWP, or a markup formula from which AWP can be calculated, Micromedex will calculate the AWP by applying a standard 20% markup over the manufacturer-supplied WAC. If a WAC is not provided, the standard markup will be applied to the DIRP.

When the manufacturer supplies an SWP, the Micromedex AWP for that drug will be the manufacturer's reported SWP, even if the manufacturer supplies a WAC, DIRP or both. Consequently, the published AWP may be greater than a 20% markup over the manufacturer-supplied WAC or DIRP.

Please note that Micromedex does not perform any independent analysis to determine or calculate the actual AWP paid by providers² to wholesalers. Micromedex also does not independently investigate the actual WAC paid by wholesalers to manufacturers or DIRP paid by providers to manufacturers. Micromedex relies on the manufacturers to report the values for these categories as described above.

Micromedex provides a list of the manufacturers that do not provide the AWP or a markup formula.

For more information on this list, please email Micromedex at

ProductSupport@Merative.com

Please refer to this AWP Policy as you review the pricing information contained in the Micromedex products.

¹The term "manufacturer" includes manufacturers, distributors, repackagers, and private labelers.

²The term "provider" includes retailers, hospitals, physicians, and others buying either from the wholesaler or directly from the manufacturer for distribution to a patient.

Unit Price Calculations

Each product record in Micromedex® RED BOOK® contains as many as three of the following price quotations:

- The Average Wholesale Price (AWP)
- The Manufacturer’s Direct Price (DIR)
- The Suggested Retail Price (SRP)
- The Federal Upper Limit Price (FUL) from the Healthcare Financing Administration (HCFA)
- The Wholesale Acquisition Cost (WAC)

The unit price is determined by dividing the per-package price by the total size of the package expressed as NCPDP (National Council for Prescription Drug Programs) units as shown below. Unit prices thus can be denoted three ways:

1. Price per gram (for products measured by weight, such as powders and ointments)
2. Price per milliliter (for products measured by liquid volume)
3. Price each, or apiece (for products sold by the item, such as tablets, lozenges, and suppositories)

For products measured by weight or volume, the following factors are used in converting to grams or milliliters.

Liquid		Dry	
1 cc =	1 ml	4 drams =	15 gm
1 oz =	30 ml	1 oz =	30 gm
1 pt =	480 ml	1 lb =	454 gm
1 qt =	960 ml		
1 gal =	3840 ml		

The following formulas are used to calculate unit prices.

Formula 1 (for products sold by the item)

$$\text{Unit Price} = \frac{\text{Price per package}}{\text{Package Quantity}}$$

e.g.

$$\frac{\$15.00}{100 \text{ tablets}} = \$0.15 \text{ each}$$

Formula 2 (for products sold by weight or volume)

Unit Price = Price per package or lot
Product-weight/volume

e.g.

\$15.00
----- = \$0.50/gm
30 gm

Formula 3 (for packages of multiple containers of the product)

Unit Price = $\frac{\text{Price per package}}{\text{Product-weight/volume} \times \text{Package Quantity}}$

e.g.

\$15.00
- ----- = \$0.15/ml
5 ml 20s

Dosage Form Descriptions

Code	Description
ACC	Accessory
AER	Aerosol Liquid
ARO	Aerosol powder
BAN	Bandage
BAR	Bar
BEA	Beads
C12	Capsule, extended release, 12 hour
C24	Capsule, extended release, 24 hour
CAK	Cake
CAP	Capsule
CER	Capsule, extended release
CHI	Chip
CRE	Cream
CRY	Crystal
CTB	Chewable Tablet
DAP	Patch, Device Assisted
DEV	Device

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DRE	Dressing
DSK	Disk
ECC	Capsule, delayed release
ECT	Tablet, enteric coated
ELI	Elixir
EMO	Emollient cream
EMU	Emulsion
FDS	Food, solid
FIL	Film
FLA	Flake
FOA	Foam
GAS	Gas
GEF	Powder, effervescent
GEL	Gel/jelly
GER	Powder for suspension, extended release
GFS	Gel forming solution
GRA	Granule
GUM	Gum
ICR	Insert, controlled release
Code	Description
IMP	Implant
INJ	Injectable
KIT	Kit
LEA	Leaf
LIQ	Liquid
LOT	Lotion
LOZ	Lozenge/troche
LUM	Lump
NMA	Enema
ODT	Tablet, disintegrating
OEM	Emollient ointment
OIL	Oil
OIN	Ointment
PAD	Pad
PAS	Paste
PDR	Powder for suspension
PDS	Powder for solution
PEL	Pellet
PI1	Powder for suspension, 1 month

APPENDIX C: MICROMEDEX® RED BOOK® - AWP POLICY

PI3	Powder for suspension, 3 month
PI4	Powder for suspension, 4 month
PI6	Powder for suspension, 6 month
PKT	Packet
POD	Pod
POW	Powder
PRO	Prophylactic
PUD	Pudding
SER	Suspension, extended release
SGL	Capsule, liquid-filled
SHA	Shampoo
SHE	Sheet
SOA	Soap
SOL	Solution
SPE	Suppository, extended release
SPG	Sponge
SPR	Spray
STI	Stick
SUP	Suppository
Code	Description
SUS	Suspension
SWA	Swab
SYR	Syrup
T12	Tablet, extended release, 12 hour
T24	Tablet, extended release, 24 hour
TAB	Tablet
TAM	Tampon
TAP	Tape
TBS	Tablet for suspension
TCP	Tablet, delayed release
TDM	Patch, extended release
TDR	Tablet, disintegrating, delayed release
TEC	Tablet, extended release, chewable
TEF	Tablet, effervescent
TER	Tablet, extended release
TES	Test
TIN	Tincture
TSN	Tablet for solution
WAF	Wafer
WAX	Wax

Route Listing

Abbreviation	Route Listing
BC	BUCCAL MUCOSA
DE	DENTAL
EP	EPIDURAL
IC	INTRACAVERNOSAL
ID	INTRADERMAL
IH	INHALATION
IJ	INJECTION
IL	URINARY BLADDER
IM	INTRAMUSCULAR
IN	INTRATHECAL
IO	INTRAOCULAR
IP	IMPLANTATION
IR	IRRIGATION
IS	INSTILLATION
IT	INTRATRACHEAL
IU	INTRAUTERINE
IV	INTRAVENOUS
IY	INTRATYMPANIC
MM	OROMUCOSAL
MR	MULTIPLE ROUTES
NA	NOT APPLICABLE
NA	ROUTE NOT APPLICABLE
NS	NASAL
OP	OPHTHALMIC
PC	PERCUTANEOUS
PL	INTRAPLEURAL
PO	ORAL
PT	INTRAPERITONEAL
RC	RECTAL
SC	SUBCUTANEOUS
SG	GINGIVAL
SL	SUBLINGUAL
TD	TRANSDERMAL
OT	OTIC

TP	TOPICAL APPLICATION
UR	URETHRAL
VC	INTRACEREBROVENTRICU
VG	VAGINAL

Orange Book Codes

The Orange Book Codes supply the FDA’s therapeutic equivalence rating for applicable multi-source categories. Codes beginning with ‘A’ signify the product is deemed therapeutically equivalent to the reference product for the category. Codes beginning with ‘B’ indicate bioequivalence has not been confirmed ‘EE’ is assigned by RED BOOK to products that have been evaluated by the FDA but for which an equivalence rating is not available.

Code	Interpretation
AA	No bioequivalence problems in conventional dosage forms
AB	Meets necessary bioequivalence requirements
AB1	Meets bioequivalence requirement to AB1 rated reference drug
AB2	Meets bioequivalence requirement to AB2 rated reference drug
AB3	Meets bioequivalence requirement to AB3 rated reference drug
AB4	Meets bioequivalence requirement to AB4 rated reference drug
AN	Solution or powder for aerosolization
AO	Injectable oil solution
AP	Injectable aqueous solution
AT	Topical product
BC	Controlled-release tablet, capsule, or injectable
BD	Documented bioequivalence problem
BE	Enteric coated oral dosage form
BN	Product in aerosol-nebulizer delivery system
BP	Potential bioequivalence problem
BR	Suppository or enema or systemic use
BS	Testing standards are insufficient for determination
BT	Topical product with bioequivalence issues
BX	Insufficient data to confirm bioequivalence
B*	Requires further FDA investigation and review
EE	This entry has been evaluated by the FDA, but a rating is not available for this labeler’s product

Micromedex® RED BOOK® Terms and Definitions

AWP: Average Wholesale Price

DIR: Direct Price

FUL: Federal Upper Limit

HRI: Health Related Item

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J - Codes: J-Codes are a series of reimbursement codes created by the Centers for Medicare and Medicaid Services (CMS) to allow Medicare and Medicaid providers and carriers to communicate their services in a consistent manner and validate fee schedules through standardized coding. While originally developed for Medicare and Medicaid use, this nationally recognized coding system is required by many private insurance carriers for claims reimbursements. J-Codes are most often associated with drugs administered as part of an office-based procedure, such as injectables and drugs used in chemotherapy.

NDC: National Drug Code

SRP: Suggested Retail Price

UPC: Universal Product Code

WAC: Wholesale Acquisition Cost

APPENDIX D: POISON CENTER INTEGRATION

This appendix is applicable to Poison Centers that have integrated Micromedex® POISINDEX with their case management tool.

As a Specialist in Poison Information you can easily add Micromedex® product documents and detailed management documents to cases in your case management tool. The examples provided here are intended to show the general functionality that is available. You may encounter slight differences with your case management tool configuration.

PRODUCT OR SUBSTANCE SEARCH

Adding a Product Document

1. Enter a product or substance name, code, or product ID, in your case management tool, and it initiates a search in Micromedex.
2. The Micromedex search results display in your Internet browser.
3. Click the **Select Product** icon seen below the name of the product to select it. Notice the message that temporarily displays indicating that the product was selected.

Merative Micromedex® Product Lysol has been selected

My Subscription | Gateway | Training Center | Help | Mobile Application Access | Logout

Keyword search

Home Drug Interactions IV Compatibility Drug ID Drug Comparison Case Notes **Tox & Drug Product Lookup** Formulary Other Tools

< Modify Search - Export Search Results As -

Tox & Drug Product / Substance Results

Name or Code

United States Other Countries

Name	Active Ingredient	Physical Description	Company	AAPCC
1. Lysol	N-Alkyl Dimethyl Benzyl Ammonium Chloride - 1.3% Pine Oil - 9% Water - Less Than 89%	Oily Liquid Brown	Flinn Scientific	039282
2. Lysol Action Gel - Toilet Bowl Cleaner - Country	Oxalic Acid - 0.1 to 1% Quaternary Ammonium Compounds, Benzyl- C11-15, 16, 18-hydroxymethyl	Clear Gel Liquid	Reckitt Benckiser	077309

Lysol
Select Product Case: 541823

Micromedex Product ID 7282025 - 08/11
AAPCC 039282 - Disinfectants:
Pine Oil

Toxicology Documentation

POISINDEX Managements



-OR-

4. Click a product name to view the product document. Then click the **Select Product** icon. Notice the message that temporarily displays indicating that the product was selected.

Tox & Drug Product / Substance Results

Name or Code ×

[United States](#) [Other Countries](#)

Name	Active Ingredient	Physical Description	Company
1.  Lysol	N-Alkyl Dimethyl Benzyl Ammonium Chloride - 1.3% Pine Oil - 9% Water - Less Than 89%	Oily Liquid Brown	Flinn Scientific
2.  Lysol Action Gel - Toilet Bowl Cleaner - Country	Oxalic Acid - 0.1 to 1% Quaternary Ammonium Compounds, BenzylC12-16	Clear Gel Liquid	Reckitt Benckiser


Merative **Micromedex**® Product Lysol has been selected My Subscription | Gateway Keyword search

Home Drug Interactions IV Compatibility Drug Drug Comparison CareNotes **Tox & Drug Product Lookup**

< Search Results

Tox & Drug Product / Substance Details

Lysol

 [Select Product](#) Case: 541823

Micromedex Product ID: 7282025 - 08/11

Toxicology Documentation

POISINDEX Managements

- [PINE OIL](#)
- [DETERGENTS-CATIONIC](#)

Excipients: Pine Oil

Click the **Select Product** icon and a message displays indicating that the product was selected

- Depending on the configuration of your case management tool, the product document is automatically added to the case record or you perform another step within the tool to add it.

Adding a Detailed Management Document

- Enter a product or substance name, code, or product ID, in your case management tool, and it initiates a search in Micromedex.
- The Micromedex search results display in your Internet browser.
- Click on a Related Documents link for POISINDEX, and the detailed management document displays. You can use the links on the left side of the page to view specific sections of the document, such as Range of Toxicity.

Modify Search - Export Search Results As -

Tox & Drug Product / Substance Results

Name or Code x

United States **Other Countries** View page: [Preview](#) [List](#)

Name	Active Ingredient	Physical Description	Company	Product ID	AAPCC	Related Documents
1. Lysol	N-Alkyl Dimethyl Benzyl Ammonium Chloride - 1.3% Pine Oil - 9% Water - Less Than 89%	Oily Liquid Brown	Flinn Scientific	7282025	039282	PINE OIL - POISINDEX DETERGENTS-CATIONIC - POISINDEX

[Search similar products](#)

Detergents-Cationic

Quick Answers **In-Depth Answers** All Results

Overview

- Life Support
- Clinical Effects
- Laboratory/ Monitoring
- Treatment Overview
- Range Of Toxicity
- Substances Included/ Synonyms
- Therapeutic/ Toxic Class
- Specific Substances
- Available Forms/ Sources
- Clinical Effects
- Summary Of Exposure
- Heent
- Cardiovascular

Overview

Life Support

[View Full Document](#)

[Print](#)

[Select Management Case: 541823](#)

Related Results

- Disease
- Toxicology
- Medical Management Information
- Product Lookup - Martindale
- Product Lookup - Tox & Drug

Use the links to display the sections of the document

Click the **POISINDEX** link to display the detailed document

- Click the **Select Management** icon to select the document. Notice the message that temporarily displays indicating that the management has been selected.

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Product **Detergents-Cationic** has been selected Keyword search

Home **Drug Interactions** IV Compatibility Drug ID **Drug Comparison** CareNotes Tox & Drug Product Lookup Formulary Other Tools

Detergents-Cationic

Quick Answers **In-Depth Answers** All Results

Overview

- Life Support
- Clinical Effects
- Laboratory/ Monitoring
- Treatment Overview
- Range Of Toxicity
- Substances Included/ Synonyms
- Therapeutic/ Toxic Class

Overview

Life Support

[View Full Document](#)

[Print](#)

[Select Management Case: 541823](#)

Related Results

- Disease
- Toxicology
- Medical Management Information
- Product Lookup - Martindale
- Product Lookup - Tox & Drug

Click the **Select Management** icon, and a message displays indicating that the document was selected

- Depending on the configuration of your case management tool, the detailed management document is automatically added to the case record or you perform another step within the tool to add it.

DRUG IMPRINT SEARCH

Adding a Product Document

1. Enter the imprint on a pill you are trying to identify in your case management tool, and it initiates a search in Micromedex.
2. The Micromedex® Drug Identification search results display in your Internet browser.
3. Click the **Select Product** icon next to one of the products to select it. Notice the message that temporarily displays indicating that the product was selected.

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Search

Product: Mirtazapine has been selected




Home Drug Interactions IV Compatibility Drug ID Drug Comparison CareNotes® NeoFax® / Pediatrics Other Tools

Drug Identification Results

5 Matches for: "mi" Case: 653336 Sort all Results by: Imprint

3 Drug Matches for 'M' 1 - 3 (of 3 matching drugs) First Previous Next

Display: ALL 0-9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Imprint ▼	Drug Name	Manufacturer	Availability	AAPCC	Poisindex Management
MI 15 APO MI15	 Mirtazapine	Apotex (Canada)	United States	310001	MIRTAZAPINE
MI 30 APO MI30	 Mirtazapine	Apotex (Canada)	United States	310001	MIRTAZAPINE
MI-45 APO	 Mirtazapine	Apotex (Canada)	United States	310001	MIRTAZAPINE

-OR-

- Click a product name to view the product document. Then click the **Select Product** icon. Notice the message that temporarily displays indicating that the product was selected.

Drug Identification Results ← Modify Identification Search Images ▶

5 Matches for: "mi" Case: 653336 Sort all Results by: Impr

3 Drug Matches for 'M' 1 - 3 (of 3 matching drugs) «First «Previous |

Display: ALL | 0-9 | A | B | C | D | E | F | G | H | I | J | K | L | **M** | N | O | **P** | Q | R | S | T | U | V | W | X | Y |

Imprint ▼	Drug Name	Manufacturer	Availability	AAPCC	Poisindex Mana
MI 15 APO MI15	Mirtazapine	Apotex (Canada)	United States	310001	MIRTAZAPINE
MI 30 APO MI30	Mirtazapine	Apotex (Canada)	United States	310001	MIRTAZAPINE
MI-45 APO	Mirtazapine	Apotex (Canada)	United States	310001	MIRTAZAPINE

DRUG INFORMATION

Tox & Drug: [Mirtazapine ▶](#)
 Martindale: [Mirtazapine ▶](#)

DRUG NAME: MIRTAZAPINE
INGREDIENTS: MIRTAZAPINE -- 15 MG
RELATED DOCUMENTS: POISINDEX® MANAGERMENTS - MIRTAZAPINE
 DRUGDEX® EVALUATIONS - MIRTAZAPINE

COLOR: PALE YELLOW **NDC:** 60505-0247-8
 60505-0247-1
 60505-0247-3
 60505-0247-5

SHAPE: OVAL

IMPRINT: APO , MI 15 , MI15 **UPC:** 60505-02478
 60505-02471

FORM: ORAL TABLET **EXCIPIENTS:** CELLULOSE

AVAILABLE-CONTAINER-SIZE: BOTTLE OF 30 , BOTTLE OF 100 , BOTTLE OF 500 , BOTTLE OF 1000

AAPCC CODE: 310001 - MIRTAZAPINE

Product: Mirtazapine has been selected

Click the Select Product icon, and a message displays indicating that the product was selected.

[SELECT PRODUCT](#) Case: 653336 PRINT CLOSE

- Depending on the configuration of your case management tool, the document is automatically added to the case record or you perform another step within the tool to add it.

APPENDIX E: LANDING PAGE HIERARCHY

When multiple landing pages exist for a search result (drug, disease, toxicology, alternative medicine), the landing page that is displayed for the search result is determined by where it falls in the hierarchy below. You can navigate to any and all available landing pages when multiple landing page types exist, but the following table explains which landing page opens by default.

If all of the following landing pages exist for a search:	Then the landing page shown is:
<ul style="list-style-type: none"> • Drug: Summary • Drug: Detailed • Alternative Medicine: Summary • Alternative Medicine: Detailed • Toxicology • Disease: Summary • Disease: Detailed 	Drug Summary
<ul style="list-style-type: none"> • Drug: Detailed • Alternative Medicine: Summary • Alternative Medicine: Detailed • Toxicology • Disease: Summary • Disease: Detailed 	Detailed Drug information (DRUGDEX)
<ul style="list-style-type: none"> • Alternative Medicine: Summary • Alternative Medicine: Detailed • Toxicology • Disease: Summary • Disease: Detailed 	Summary Alternative Medicine
<ul style="list-style-type: none"> • Alternative Medicine: Detailed • Toxicology • Disease: Summary • Disease: Detailed 	Detailed Alternative Medicine
<ul style="list-style-type: none"> • Toxicology • Disease: Summary • Disease: Detailed 	Summary Toxicology
<ul style="list-style-type: none"> • Disease: Summary • Disease: Detailed 	Summary Disease
<ul style="list-style-type: none"> • Disease: Detailed 	Detailed Disease

APPENDIX F: ADMINISTRATOR FUNCTIONS

NeoFax® / Pediatrics Settings

To configure the DC Chart Layout, select any one of the header checkbox from the image below and click the **Update** button. A confirmation message appears. Click the **Close** button.

The screenshot shows the 'NeoFax® / Pediatrics Settings' interface. Under the 'DC Chart Layout' section, there are two tabs: 'Neonatal' (selected) and 'Pediatric'. Below the tabs are four layout options, each with a radio button and a diagram of a chart header and plate arrangement:

- Option 1: Header | Plate
- Option 2: Plate | Header
- Option 3: Header | Plate
- Option 4: Plate | Header

To configure the **Print Header Information**, enter organization information that you want to appear on the applicable printouts. Then click the **Update** button. A confirmation message appears. Click the **Close** button.

Click the **Reset** button to clear the entered information.

The screenshot shows the 'Print Header Information' configuration screen. It features four text input fields labeled 'Line1' through 'Line4', each containing the placeholder text 'Header Line 1' through 'Header Line 4' respectively. At the bottom of the form are two buttons: 'Reset' and 'Update'.

Note: The 'NeoFax® / Pediatrics Settings' will be available only for Online Internet (THIDS) users and not to the Offline (THIAS) Intranet users.

APPENDIX G: FREE TEXT FIELDS SUPPRESSION

Suppressing free text fields is a feature added into Micromedex application enabling the account manager or CSM to suppress the text fields. If the user could not see the text fields, it is typically due to PHI regulations in their region.

Suppression means these fields will not be seen by the user. These sections have been suppressed. If the customer has any questions related to free text fields suppression or to make any changes, they need to get in touch with their account manager or CSM.

The following are the three printable pages within the Micromedex application that can be suppressed:

1. Patient Info suppression in Patient Handouts
2. Comments suppression in Dosing Calculators

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