

National Black Nurses Association

August 6, 2010
San Diego, California

National Library of Medicine

Evidenced-based Information At Your Fingertips





National Library of Medicine: Evidence-based Information At Your Fingertips

A workshop
developed for the
National Black Nurses Association

Presented at the
2010 Institute and Conference
San Diego, California
August 6, 2010



The Oak Ridge Institute for Science and Education (ORISE) is a U.S. Department of Energy institute focusing on scientific initiatives to research health risks from occupational hazards, assess environmental cleanup, respond to radiation medical emergencies, support national security and emergency preparedness, and educate the next generation of scientists. ORISE is managed by Oak Ridge Associated Universities.

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Preface

The workshop titled, *National Library of Medicine: Evidence-based Information At Your Fingertips*, is a computer training class designed to meet the needs of nurses who require access to information on specific medical topics and on the adverse health effects of exposure to hazardous substances. The Specialized Information Services Division of the National Library of Medicine (NLM) is sponsoring this workshop for the National Black Nurses Association to increase the awareness of health professionals of the availability and value of the free NLM medical, environmental health, and toxicology databases.

Participants will receive hands-on practice with selected NLM resources, and demonstrations of other valuable resources. Major emphasis will be placed on searching NLMs medical resources, MedlinePlus® and MEDLINE®/PubMed®, along with the Hazardous Substances Data Bank (HSDB), one of several databases under the TOXNET (Toxicology Data Network) database system. Also covered by instructor demonstration only will be several databases referred to as the Drug Suite: Dietary Supplements Labels, Drug Information Portal, and Pillbox (Beta); and the Disaster Information and Preparedness Suite: Radiation Emergency Medical Management (REMM), Tox Town®, and the Wireless Information System For Emergency Responders (WISER®).

This workbook is designed to be used as a reference following the course. It contains exercises using realistic scenarios for the resources covered in the class as well as information on some of NLMs newest resources and lists of other health information resources selected for their quality and relevant content.

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Savvy Health Surfing (a pull-out flyer)	<i>final page</i>

NLM: Evidence-based Information at Your Finger Tips

Developed for the National Black Nurses Association 2010 Institute & Conference

Sheraton San Diego Hotel & Marina – San Diego, California

August 6, 2010

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Agenda

Welcome and Introductions

Pre-test

Introduction to NLMs Online Resources

MEDLINE/PubMed

 Hands-on exercises

MedlinePlus

 Hands-on exercises

Introduction to NLMs Environmental Health and Toxicology Information Resources

HSDB

 Hands-on exercises

Other Resources (*instructor demonstrations*)

- ▶ Dietary Supplements Labels Database
- ▶ Drug Information Portal
- ▶ Pillbox^{BETA}
- ▶ Radiation Emergency Medical Management (REMM)
- ▶ Tox Town
- ▶ Wireless Information Systems for Emergency Responders (WISER)

Questions/Post-test

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Introduction



Introduction



National Library of Medicine: Evidence-based Information at Your Finger Tips

A workshop developed for the
National Black Nurses Association
2010 Institute and Conference

San Diego, California
August 6, 2010

Purpose

- Familiarize nurses affiliated with the National Black Nurses Association (NBNA) with the National Library of Medicine's (NLM) online medical information resources and other resources that address global health issues.
- Skills and knowledge acquired in this training class will empower NBNA nurses to
 - remain current in their area of specialty,
 - conduct medical research, and
 - provide consumer level information to their patients.

Objectives

- Identify and evaluate quality, accurate, and authoritative online resources pertaining to global health issues.
- Demonstrate the ability to perform strategic search techniques in order to find health disparity and related information.
- Apply the skills and knowledge obtained in this course in their nursing practice, public health education programs, and research.

The National Library of Medicine



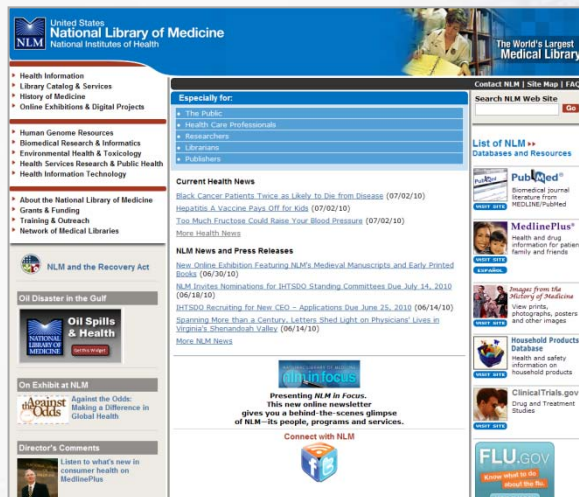
- Established in 1836
- The world's largest biomedical library
- Part of the National Institutes of Health

National Library of Medicine

- Books, journals, and historical collections
- Health information resources and databases
- Biomedical informatics research
- Biotechnology information resources
- Toxicology and environmental health resources

Why the National Library of Medicine?

- Easy
- Quick access
- Quality information
- Free



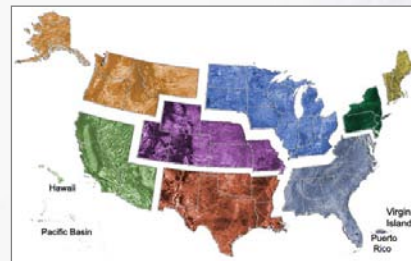


NLM Database Assistance

- Training Manuals: PubMed, and TOXNET
 - http://www.nlm.nih.gov/pubs/web_based.html
 - <http://sis.nlm.nih.gov/enviro/manuals.html>
- PubMed Quick Start/FAQ and Tutorial
 - <http://pubmed.gov> (Using PubMed)
- NLM Fact Sheets
 - <http://www.nlm.nih.gov/pubs/factsheets/factsheets.html>
- Help Links for TOXNET Databases
 - http://sis.nlm.nih.gov/toxnet_faq.html

The National Network of Libraries of Medicine (NN/LM)

- Call to find your NN/LM Regional Medical Library
 - 1.800.338.7657
 - Monday-Friday 8:30 a.m.–5:00 p.m. in all time zones
- Visit the NN/LM Web site
 - <http://nnlm.gov>



NLM Resources Covered in this Class

- PubMed
- MedlinePlus & Information Rx
- Hazardous Substances Data Bank

Other Resources

- Drug Suite:
 - Dietary Supplements Labels Database
 - Drug Information Portal
 - Pill Box ^{BETA}
- Disaster Information & Preparedness Suite:
 - Radiation Emergency Medical Management (REMM)
 - Tox Town
 - Wireless Information System for Emergency Responders (WISER)

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MEDLINE/PubMed



MEDLINE/PubMed



PubMed

- PubMed is a search tool for accessing literature citations from NLM's premiere bibliographic database, MEDLINE, and other databases
- Special Features
 - New materials added Tuesday through Saturday
 - Clinical Queries
 - Topic-Specific Queries
 - Related articles
 - Links to full-text journals at Web sites of participating publishers

MEDLINE Overview

- Over 19 million references dating back to 1948
- Citations and author abstracts from approximately 5,400 biomedical worldwide journals
- Majority of records are English language sources
- Approximately 79% of the citations include English language abstracts
- Most articles written for health care professionals
- Spell check feature

MEDLINE Subject Coverage

- Clinical, research, educational, and administrative aspects of
 - Dentistry
 - Medicine
 - Nursing
 - Veterinary Medicine
 - Allied Health
 - Pre-clinical Sciences

PubMed Searching

- Key words
 - Automatically matched to MeSH, journal titles, phrase list, and author index
 - Not case sensitive
- Phrases (“heart attack”)
 - Phrases in quotes will not be matched to MeSH, journal titles, phrase list, and author index
- Auto Suggest
 - Based on the terms you enter, some of the most popular PubMed searches will be displayed in the menu
- Author's name format for searching (smith ja)
- Full name may be used for citations from 2002 forward

PubMed Searching

- Boolean commands or connector words: **AND**, **OR**, and **NOT**
 - HIV **AND** AIDS (finds all search terms)
 - Treatment **OR** Therapy (finds either term or both)
 - Tuberculosis **NOT** Pneumonia (eliminates specified terms)
- Stop words
 - Frequently used words such as: about, because, can, each, should, and would

PubMed Searching

- Truncation
 - Finds all words beginning with a given root word or text string
 - Place an asterisk (*) at the end of the term

Example

Search Term

infect*

Retrieves

infect
infection
infections
infectious
etc.

Limits

The screenshot shows the PubMed website interface. At the top, the 'Limits' link in the navigation bar is circled in red. Below it, the 'Limits' panel is open, displaying various filters. The 'Reset' and 'Search' buttons at the bottom of the panel are also circled in red.

Note the Reset and Search button

Advanced Search

Advanced Search

Search Builder

All Fields Index

Add to Search Box with: **AND** **OR** **NOT**

[Search Builder Instructions](#)

Search History

[Search History Instructions](#)

More Resources

[MeSH Database](#)
[Journals Database](#)
[Single Citation Matcher](#)
[Clinical Queries](#)
[Topic-Specific Queries](#)

You are here: [NCBI](#) > [Literature](#) > [Published](#) [Write to the Help Desk](#)

GETTING STARTED	RESOURCES	POPULAR	FEATURED	NCBI INFORMATION
NCBI Help Manual NCBI Handbook Training & Tutorials	Literature DNA & RNA Proteins Sequence Analysis Genes & Expression Genomes & Maps Domains & Structures Genetics & Medicine	Published PubMed Central Bookshelf BLAST Gene Nucleotide Protein DDBJ	GenBank Reference Sequences Map Viewer Genome Projects Human Genome Mouse Genome Influenza Virus Protein BLAST	About NCBI Research at NCBI NCBI Newsletter NCBI FTP Site

Search Results

- Results displayed in order entered into system – last in, first out
- Display summary, abstract, MEDLINE, or other record format
- Provides option to Save Search via My NCBI feature
- Link to Related Articles
- Send to:
 - File
 - Clipboard
 - Collections
 - E-mail
 - Order

Search Results

NCBI Resources How To My NCBI Sign In

PubMed.gov
U.S. National Library of Medicine
National Institutes of Health

Search: PubMed
influenza h1n1

RSS Save search Limits Advanced search Help

Search Clear

Display Settings: Summary, 20 per page, Sorted by Recently Added

Send to: Filter your results:

Results: 21 to 40 of 5605

All (5605)
Review (223)
Free Full Text (1594)

21 Fulbright scholar international teaching and research opportunities for veterinary faculty. **Free Full Text** → **Free Full Text (1594)**
Memon MA, Garrison G, Mashima TY, Chaddock M. **Author(s)**
J Vet Med Educ. 2010 Summer;37(2):207-8.
PMID: 20576911 [PubMed - in process]
[Related citations](#)

22 2009 pandemic influenza A(H1N1) virus in Scotland: geographically variable immunity in Spring 2010, following the winter outbreak.
Adamson WF, Maddi S, Robertson C, McDonagh S, Molyneaux PJ, Templeton KE, Carman WF. **Publication Date**
Euro Surveill. 2010 Jun 17;15(24): pii: 19590.
PMID: 20576237 [PubMed - in process] **Free Article**
[Related citations](#)

23 Transmissibility of 2009 pandemic influenza A(H1N1) in New Zealand: effective reproduction number and influence of age, ethnicity and importations.
Paine S, Mercer GN, Kelly PM, Bandaranayake D, Baker MG, Huang QS, Mackereth G, Bissielo A, Glass K, Hope V.
Euro Surveill. 2010 Jun 17;15(24): pii: 19591.
PMID: 20576236 [PubMed - in process] **Free Article**
[Related citations](#)

24 Effect of Clinical and Virological Parameters on the Level of Neutralizing Antibody against Pandemic Influenza A Virus H1N1 2009.
Hung IF, To KK, Lee CK, Lin CK, Chan JF, Tse H, Cheng VC, Chen H, Ho PL, Tse CW, Ng TK, Que TL, Chan KH, Yuen KY.

Find related data
Database: Select
Find items

Search details
(("influenza, human" [MeSH Terms] OR ("influenza" [All Fields] AND "human" [All Fields])) OR "human influenza" [All Fields])
Search See more...

Recent activity
Turn Off Clear

Search Results

NCBI Resources How To My NCBI Sign In

PubMed.gov
U.S. National Library of Medicine
National Institutes of Health

Search: PubMed
influenza h1n1 children

RSS Save search Limits Advanced search Help

Search Clear

Display Settings: Summary, 20 per page, Sorted by Recently Added

Send to: Filter your results:

Results: 21 to 40 of 931

21 High Sensitivity of a Rapid Immunochromatographic Test for the Detection of Influenza Virus in Nasopharyngeal Aspirates from Young Children.
Andresen DN, Kesson AM.
J Clin Microbiol. 2010 May 26. [Epub ahead of print]
PMID: 20504988 [PubMed - as supplied by publisher]
[Related citations](#)

22 Predictors of Influenza Vaccination in the Cystic Fibrosis Foundation Patient Registry, 2006 through 2007.
Ortiz JR, Neuzil KM, Victor JC, Aitken ML, Goss CH.
Chest. 2010 May 21. [Epub ahead of print]
PMID: 20495106 [PubMed - as supplied by publisher]
[Related citations](#)

23 Severe A/H1N1 influenza in four pregnant women in Podkarpacie Province of Poland.
Skret-Magierlo J, Florek A, Skret A, Piechota Z, Botiuk K, Pajak M, Kokot P.
Ginekol Pol. 2010 Mar;81(3):227-31.
PMID: 20486547 [PubMed - indexed for MEDLINE]
[Related citations](#)

24 Guillain-Barre Syndrome Following H1N1 Immunization in a Pediatric Patient (July/August).
Tremblay ME, Closon A, D'Anjou G, Bussi res JF.
Ann Pharmacother. 2010 May 18. [Epub ahead of print]
PMID: 20484170 [PubMed - as supplied by publisher]
[Related citations](#)

25 A computer simulation of vaccine prioritization, allocation, and rationing during the 2009 H1N1 influenza

Choose Destination
File Clipboard
Collections E-mail
Order

Send to: pull down menu areas

Find related data
Database: Select
Find items

Search details
(("influenza, human" [MeSH Terms] OR ("influenza" [All Fields] AND "human" [All Fields])) OR "human influenza" [All Fields])
Search See more...

Recent activity
Turn Off Clear

Register for My NCBI

- An easy way to STORE and UPDATE searches on topics of continuing interest
 - Store your searches in MY NCBI
 - Update your stored search(es) to see what's new
 - Set up e-mail alerts for new content
 - Display links to Web resources (Link Out)
 - Choose filters that group search results

How to Order Documents

- Loansome Doc
 - An automated document ordering program
 - Accessible directly from PubMed
 - Click Order under the Send to: drop down menu
 - Allows you to order the full text of an article from a Loansome Doc participating library

Clinical Queries

- Specialized PubMed searches for clinicians, including:
 - Clinical Study Categories
 - Etiology
 - Diagnosis
 - Therapy
 - Prognosis
 - Systematic Reviews
 - Medical Genetics

Topic-Specific Queries

- Directory of topic-specific PubMed Queries containing:
 - Queries targeted for clinicians and health services researchers
- Specific subject queries
- Additional search queries/interfaces
- Journal collections

Print Research Results

- Use Web browser print function
- Can print only records on displayed page
- Use Display Settings to increase the number of records on displayed page (up to 200)
- Use your browser's print options to print record(s)

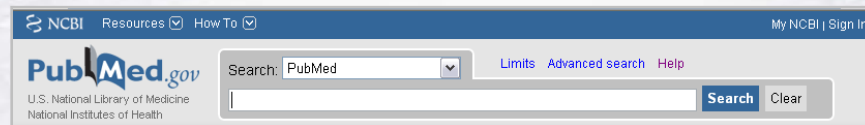
Save Search Results

- Default: Entire retrieval of one search
 - Up to 5,000 items
- Select specific records by clicking in the check box above the item number you want to save
- Choose a Display Format and Sort by selection if desired
- Select File from the Send to menu and select the MEDLINE format to download record(s) for use with reference management software

Additional Resources

- PubMed Tutorial Web-based learning program
 - http://www.nlm.nih.gov/bsd/pubmed_tutorial/m1001.html
- MeSH Video
 - <http://www.nlm.nih.gov/bsd/disted/video>
- NLM Training Manuals and Resources
 - http://www.nlm.nih.gov/pubs/web_based.html
 - Workbook sections 1, 2, and 3
- NLM Distance Education Program Resources
 - http://www.nlm.nih.gov/bsd/dist_edu.html

Access



<http://pubmed.gov>

Or...

Click the PubMed link
on NLM's home page:
<http://www.nlm.nih.gov>



PubMed for Handhelds Web site



- A website for searching MEDLINE® with the web browser of any mobile device.

<http://pubmedhh.nlm.nih.gov>



MEDLINE/PubMed Exercises

Search Example: Crush injuries and crush syndrome are common among earth quake victims. What information has been written about the management of these conditions?

- Go to <http://pubmed.gov> and type **management crush injuries crush syndrome** in the search box:

NCBI Resources How To My NCBI Sign In

PubMed.gov
U.S. National Library of Medicine
National Institutes of Health

Search: PubMed Limits Advanced search Help

management crush injuries crush syndrome **Search** Clear

- Click the **Search** button and review the citation(s) retrieved:

NCBI Resources How To My NCBI Sign In

PubMed.gov
U.S. National Library of Medicine
National Institutes of Health

Search: PubMed RSS Save search Limits Advanced search Help

management crush injuries crush syndrome **Search** Clear

Display Settings: Summary, 20 per page, Sorted by Recently Added Send to: Filter your results:

Results: 1 to 20 of 140

1. [\[Non-traumatic rhabdomyolysis in medical practice\]](#)
Lionte C, Sorodoc L, Petriș O, Sorodoc V, Bologa C, Anton G.
Rev Med Chir Soc Med Nat Iasi. 2009 Oct-Dec;113(4):1025-33. Romanian.
PMID: 20191869 [PubMed - indexed for MEDLINE]
[Related citations](#)

2. [Trauma evaluation of patients with chest injury in the 2008 earthquake of Wenchuan, Sechuan, China.](#)
Hu Y, Tang Y, Yuan Y, Xie TP, Zhao YF.
World J Surg. 2010 Apr;34(4):728-32.
PMID: 20127240 [PubMed - indexed for MEDLINE]
[Related citations](#)

3. [Complex extrication and crush injury.](#)
Burns K, Cone DC, Portereiko JV.
Prehosp Emerg Care. 2010 Apr 6;14(2):240-4.
PMID: 20095831 [PubMed - indexed for MEDLINE]
[Related citations](#)

4. [Management of severe crush injury in a front-line tent ICU after 2008 Wenchuan earthquake in China: an experience with 32 cases.](#)
Li W, Qian J, Liu X, Zhang Q, Wang J, Chen D, Lin Z.

Titles with your search terms
Crush injuries of the foot with compartment syndrome: immediate one-st: [Foot Ankle. 1989]
See more...

4 free full-text articles in PubMed Central
Management of severe crush injury in a front-line tent ICU after 2008 Wenchuan [Crit Care. 2009]
Medical experience of a university hospital in Turkey after the 1999 Marmara [Emerg Med J. 2005]
Bench-to-bedside review: Rhabdomyolysis – an overview [Crit Care. 2005]

- Click the **Clear** button to prepare for the next search.

NCBI Resources How To My NCBI Sign In

PubMed.gov
U.S. National Library of Medicine
National Institutes of Health

Search: PubMed RSS Save search Limits Advanced search Help

management crush injuries crush syndrome **Search** **Clear**

Display Settings: Summary, 20 per page, Sorted by Recently Added Send to: Filter your results:

Basic Searches

Exercise 1: What is the impact of disasters on diabetic and renal patients?

Keyboard Help:

- | | |
|-------|---|
| Type | impact disasters AND diabetic renal patients in the search box |
| Click | the Search button and review the citations retrieved |
| Click | the Clear button to prepare for the next search |

Exercise 2: Locate an article titled *Earthquakes and Crush Syndrome Casualties: Lessons Learned from the Kashmir Disaster*.

Keyboard Help:

- | | |
|--------|---|
| Type | earthquakes crush syndrome casualties in the search box |
| Click | Limits above the search box |
| Select | Title from the pull down menu under Search Field Tags |
| Click | the Search button and review the citation |
| Click | Remove in the yellow bar above the citation to deactivate limits |
| Click | the Clear button to prepare for the next search |

Exercise 3: Locate citations on disaster preparedness training for health care professionals. Next, access free full-text articles.

Keyboard Help:

- | | |
|--------|---|
| Type | disaster preparedness training health care professionals in the search box |
| Click | the Search button and scan the citations retrieved |
| Click | <u>Free Full Text</u> under "Filter your results:" in the top right of the page and scan citations |
| Select | a citation by clicking on the title |
| Click | the icon to the right of the citation.
 Some icons may indicate free full text. |
| Close | the pop-up window |
| Click | the backspace button to return to search results page |
| Click | the Clear button to prepare for the next search |

Exercise 4: Find citations on metabolic syndrome in African Americans. Limit your search to articles published during the past five years.

Keyboard Help:

Type	metabolic syndrome african americans in the search box
Click	Limits above the search box
Click	<u>Any date</u> from the “Published in the Last:” pull-down menu under <u>Dates</u>
Select	<u>5 years</u> from the “Published in the Last:” pull-down menu under <u>Dates</u>
Click	the Search button and review the citations retrieved
Click	on “Remove” next to “Limits Activated:” in the yellow bar above the search results
Click	Clear to prepare for the next search

Exercise 5: Find an article by D. Mohr titled “Southern Cooking and Lung Cancer.”

Keyboard Help:

Type	southern cooking lung cancer in the search box
Apply	Limits  The limits search screen should already be displayed from your previous search.
Scroll	down right side of the page and select <u>Title</u> from the “Field” pull-down menu under Search Field Tags
Click	the Search button and review the citation retrieved
Click	on <u>Change</u> next to “Limits Activated:” in the yellow bar above the search results
Click	<u>All Fields</u> from the “Field” pull-down menu under Search Field Tags
Click	Clear to prepare for the next search

Advanced Searches

Exercise 6: Search the AIDS subset to locate articles that discuss taking Nevirapine during pregnancy for the prevention of HIV transmission. Limit retrieval to human studies and articles written in English.

Keyboard Help:

Type	nevirapine AND pregnancy AND transmission in the search box
	 Always capitalize Boolean operators (AND, OR, NOT) in PubMed.

Apply	Limits
	 The limits search interface should already be selected from your previous search.
Select	the <u>Humans</u> checkbox under Species
Select	the <u>English</u> checkbox under Languages
Select	the <u>AIDS</u> topic checkbox under Subsets
Click	the Search button and review the citation(s) retrieved
Click	<u>Remove</u> next to "Limits Activated:" in the yellow bar above the search results
Click	Clear to prepare for the next search

Exercise 7: Research articles on the subject of health care access in African American populations. Next, e-mail to yourself the abstract of the first record in text format

Keyboard Help:

Type	African American health care access in the search box
Click	the Search button
Click	the checkbox to the left of the first record
Select	<u>E-mail</u> from the "Send to:" pull-down menu
Select	<u>Abstract</u> from the "Format" pull-down menu
Type	your e-mail address in the "E-mail" field
Click	the E-mail button
Review	the e-mail confirmation message highlighted in green above the abstract
Click	the Clear button to prepare for the next search

Exercise 8: Using the Single Citation Matcher, locate an article published in 1999 titled "Barriers to prostate cancer screening in African American men."

Keyboard Help:

Click	<u>Advanced Search</u> above the search box
Scroll	down and click <u>Single Citation Matcher</u> under More Resources
Type	1999 in the box next to "Date"
Type	barriers screening prostate cancer african american in the "Title words" search box
Click	the Go button and review the citation
Click	the Clear button to prepare for the next search

Exercise 9: Set up a My NCBI user account and conduct a search for journal articles on the prevalence of asthma children. Next, access all free full-text articles and review choice.

Keyboard Help:

Click	My NCBI at the top right of the page
Click	<u>Register for an account</u>
Follow	the directions for setting up a User Name and Password
	 Clicking the “Keep me signed in” checkbox will create a permanent cookie so that My NCBI will be indefinitely available on your computer without signing in again.
Type	asthma prevalence children in the search box
Click	the Search button
Click	Save Search at the top of the screen
Click	Save button
	 You must validate e-mail address to receive search e-mails and notifications.
Select	<u>E-mail</u> update options and click Save button
Review	search results
	 Note that your search was saved in the green bar above the citations. Click <u>Edit your search settings</u> to change your search settings.
Click	<u>Free Full Text</u> link under “Filter your results:” at the top right of the screen
Select	citation and click title to review
Click	the icon(s) to the right of the citation indicating free full text
Review	select article and close window(s)
Click	the Clear button and prepare for the next search

Saving and Printing Records in PubMed

The **Send to:** button is available on screens with search results. You can save the entire results of a specific search or selected citations. If you don't select specific citations before clicking on the **Send to:** button, you will create a file on your computer that will contain the entire search results, up to a maximum of 5,000 items.

You can also save records collected from multiple searches by using the **Send to:** [Clipboard](#) feature. The Clipboard holds a maximum of 500 items. When you save a file, your browser will prompt you where this file should be placed on your computer, and also give you the opportunity to rename the file.

Saving Entire Search Results

- ▶ Click **Send to:** [File](#) to select your formatting and sorting preferences.
 -  The default for the File feature is to save the entire retrieval—up to 5,000 items— unless you specifically select citations. For example, if you use the **Send to:** [File](#) feature on a screen displaying 1-20 items of 2,356, your saved file will contain all 2,356 citations.
- ▶ Click [Create File](#)

Saving Selected Citations from a Single Search

- ▶ Click the check box next to each citation you want to save.
 -  You can move to other pages within the search results to make more selections.
- ▶ Click **Send to:** [File](#) to select your formatting and sorting preferences.
 -  Saving a large retrieval may take several minutes. To save citations in html format, use the Save As function of your browser, and change the file extension to html. This will save only the citations displayed on the screen, so you may wish to consider changing the number of items per page from the Display Settings.
- ▶ Click [Create File](#)

Using the Clipboard

- ▶ Click the check box next to each citation you want to send to the Clipboard, select [Clipboard](#) from the **Send to:** pull-down menu. Click Add to Clipboard and those items selected will automatically be saved to the clipboard.
 -  Once you have added a citation to the Clipboard, the item will display a note, “Item in Clipboard” in green beneath the selected citation.
 -  If you use the [Clipboard](#) feature without selecting citations using the check box(es), PubMed will add all of your search results—up to 500 citations—to the Clipboard. The Clipboard will be lost after eight hours of inactivity.



PubMed uses cookies to add your selections to the clipboard. In order for you to use this feature, your Web browser must be set to accept cookies.



Citations in the clipboard are represented by the search number “#0,” and may be used in Boolean search statements. For example, to limit the citations you have collected in the Clipboard to English language citations, use the following search:

#0 AND english [la]

- This does not affect or replace the Clipboard contents.

E-mailing Citations

- ▶ Select E-mail from the **Send to:** menu
- ▶ Select your formatting and sorting preferences
- ▶ Select the number to send (if sending more than the first 20 records)
- ▶ Enter an e-mail address
 -  Only one is permitted, to prevent spam
- ▶ Add additional text if you wish
- ▶ Click E-mail

Ordering Full-text Articles

The **Order Documents** function allows you to order the full-text copy of an article from a medical library. Prior to using this feature, you must establish an agreement with a Loansome Doc participating library. During the registration process, you will have the opportunity to search for a Loansome Doc provider in your area (U.S. and International). Local fees may apply. To register, click Order from the **Send to:** menu, then Order articles to get to the **Loansome Doc Screen**, then **Sign up!** from the Loansome Doc screen.

After you have registered with a Loansome Doc participating library, you can order citations by clicking the check box to the left of each citation you want to order. When you have finished marking your selections (you may move to other pages within your results), select Order from the **Send to:** pull-down menu.



You may use the Clipboard to collect items from multiple searches before ordering.



For some journals, full-text articles are available via a PubMed link to the publisher's Web site. Publisher links for the full-text of the article are displayed on the Abstract or Citation display. LinkOut is a PubMed feature that links to outside sources for the full text of the article (e.g., a publisher's Web site), as well as other resources such as biological databases and sequencing centers. User registration, a subscription fee, or some other type of fee may be required to access full-text articles in some journals.

Exporting Citations into a Reference Manager Program

To export your search results into a reference manager program, select File from the **Send to:** pull-down menu. Select the MEDLINE format to download records for use with reference management software.



Consider changing the .fcgi extension to .txt if you wish to open the file in a text editor, word processor, or reference manager program.

Printing Your Search Results

To print your search results, use the print function of your Web browser. Before printing, consider using the **Display Settings** feature to increase the number of documents per page so that the total number of documents is displayed on one page (maximum: 200 per page). You can print only the citations from the displayed page.



To print selected items from one or more searches on a single page, use the Clipboard feature first to collect them.

MEDLINE and MedlinePlus: What is the Difference?

MEDLINE is the National Library of Medicine's (NLM) premier bibliographic database. This Web-based research tool covers the fields of medicine, nursing, dentistry, veterinary medicine, the health care system, and the preclinical sciences. It contains more than 19 million citations and abstracts. Most of the articles found in MEDLINE are very technical and written for health care professionals. MEDLINE is available free through NLM's PubMed search system.

While MEDLINE is a source of medical research literature for health professionals, **MedlinePlus** provides health information especially written for consumers and patients by the National Institutes of Health and other reliable sources. MedlinePlus provides information on over 800 health topics. Additionally, consumers can search for information in the online medical encyclopedia or medical dictionary, get information on prescription and over-the-counter medication, and obtain information on local physicians and dentists. MedlinePlus is not a database for references to journal articles.

Use this Decision Tree to choose the correct database:

MEDLINE/PubMed	MedlinePlus
Database	Directory
Journal citations	Health topics
Published medical literature	Multiple sources
Health professionals	Consumers and patients
Clinical terminology	Easy to understand language
Search only	Browse and search
Value added: • Links to publishers • Selected full text articles • Selected consumer health journals • Links to MedlinePlus	Value added: • Drug information • Medical encyclopedia • Links to other Web resources • Link to MEDLINE searches • Spanish version • Surgery videos

MedlinePlus & Information Rx



*National Library of Medicine:
Evidence-based Information At Your Fingertips*

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- Over 800 topics on health conditions, diseases, and wellness
 - Including Videos & Cool Tools
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- Multiple Languages
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- MedlinePlus Magazine
- Medical Words
 - <http://www.nlm.nih.gov/medlineplus/medicalwords.html>

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Find your topic by first letter:
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Health Topics

Read about symptoms, causes, treatment and prevention for over 800 diseases, illnesses, health conditions and wellness issues. MedlinePlus health topics are regularly reviewed, and links are updated daily.

Body Location/Systems

- [Blood, Heart and Circulation](#)
- [Bones, Joints and Muscles](#)
- [Brain and Nerves](#)
- [Digestive System](#)
- [Ear, Nose and Throat](#)
- [Endocrine System](#)
- [Eyes and Vision](#)
- [Immune System](#)
- [Kidneys and Urinary System](#)
- [Lungs and Breathing](#)
- [Mouth and Teeth](#)
- [Skin, Hair and Nails](#)
- [Female Reproductive System](#)
- [Male Reproductive System](#)

Disorders and Conditions

- [Cancer](#)
- [Diabetes Mellitus](#)
- [Genetics/Birth Defects](#)
- [Infections](#)
- [Injuries and Wounds](#)
- [Mental Health and Behavior](#)
- [Metabolic Problems](#)
- [Poisoning, Toxicology, Environmental Health](#)
- [Pregnancy and Reproduction](#)
- [Substance Abuse Problems](#)
- Diagnostic and Therapy**
- [Complementary and Alternative Therapies](#)
- [Diagnostic Tests](#)
- [Drug Therapy](#)
- [Surgery and Rehabilitation](#)
- [Symptoms](#)

Demographic Groups

- [Children and Teenagers](#)
- [Men](#)
- [Population Groups](#)
- [Seniors](#)
- [Women](#)
- Health and Wellness**
- [Disasters](#)
- [Fitness and Exercise](#)
- [Food and Nutrition](#)
- [Health System](#)
- [Personal Health Issues](#)
- [Safety Issues](#)
- [Sexual Health Issues](#)
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MedlinePlus - Clinical Trials

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Other Topics: 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 All Topics

Clinical Trials

Clinical trials are research studies that test how well new medical approaches work in people. Each study answers scientific questions and tries to find better ways to prevent, screen for, diagnose or treat a disease. Clinical trials may also compare a new treatment to a treatment that is already available.

Every clinical trial has a protocol, or action plan, for conducting the trial. The plan describes what will be done in the study, how it will be conducted, and why each part of the study is necessary. Each study has its own rules about who can participate. Some studies need volunteers with a certain disease. Some need healthy people. Others want just men or just women.

In the United States, an independent committee of physicians, statisticians and members of the community must approve and monitor the protocol. They make sure that the risks are small and are worth the potential benefits.

NIH: National Institutes of Health

Get Clinical Trials updates by email **GO** [What's this?](#)

Start Here

- [Clinical Trials](#)
- [Interactive Tutorial](#) (Patient Education Institute)
- [Also available in Spanish](#)
- [How Does Clinical Research Work?](#) NIH (National Institutes of Health)
- [Understanding Clinical Trials](#) NIH (National Institutes of Health)

Related Topics

- [Understanding Medical Research](#)
- [Personal Health Issues](#)

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Basics	Learn More	Multimedia & Cool Tools
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Research	Reference Shelf	For You
Research Journal Articles	Dictionaries/Glossaries Directories Organizations Law and Policy	MedlinePlus Magazine Children Seniors

Overviews

- [Basic Questions and Answers about Clinical Trials](#) (Food and Drug Administration)
- [Clinical Trials Easy-to-Read](#) (Food and Drug Administration)
Also available in [Spanish](#)
- [Clinical Trials: A Chance to Try Evolving Therapies](#) (Mayo Foundation for Medical Education and Research)

Specific Conditions

- [Access to Investigational Drugs](#) [NIH](#) (National Cancer Institute)
- [Clinical Trials](#) [NIH](#) (National Cancer Institute)
Also available in [Spanish](#)
- [Clinical Trials of Medical Treatments: Why Volunteer?](#) (Food and Drug Administration)
- [Clinical Trials: What You Need to Know](#) (American Cancer Society)
- [How Is a Clinical Trial Planned and Carried Out?](#) [NIH](#) (National Cancer Institute)
- [JAMA Patient Page: Randomized Controlled Trials](#) (American Medical Association)
Also available in [Spanish](#)
- [Monitoring the Safety of Clinical Trials](#) [NIH](#) (National Cancer Institute)
- [Participate in Clinical Studies at the NIH Clinical Center](#) [NIH](#) (National Institutes of Health, Clinical Center)
- [Participating in a Trial: Questions to Ask Your Doctor](#) [NIH](#) (National Cancer Institute)
- [Stories from Volunteers](#) [NIH](#) (National Institutes of Health)

Related Issues

- [Clinical Trials and Complementary and Alternative Medicine](#) [NIH](#) (National Center for Complementary and Alternative Medicine)

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Tutorials

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Also available in [Spanish](#)
- [Participating in Clinical Trials](#) [NIH SeniorHealth](#) [NIH](#) (National Library of Medicine)
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Videos

- [Children and Clinical Studies](#) [NIH](#) (National Heart, Lung, and Blood Institute, National Marfan Foundation, National Center for Research Resources)
Also available in [Spanish](#)
- [What Is a Clinical Trial?](#) [NIH SeniorHealth](#) (National Cancer Institute)
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Research

- [Research into What Works Best](#) [NIH](#) (National Institutes of Health) - PDF
- [Study Examines Success Rates of Phase III Clinical Trials](#) (American Cancer Society)
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Journal Articles

References and abstracts from MEDLINE/PubMed (National Library of Medicine)

- [Article: Enrolling pregnant women in research—lessons from the H1N1 influenza pandemic.](#)
- [Article: Network that oversees cancer trials in the US needs to...](#)
- [Article: Cardiovascular clinical trials in patients with diabetes mellitus: lessons from...](#)
- [Clinical Trials -- see more articles](#)
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Dictionaries/Glossaries

- [Glossary of Clinical Trials Terms](#) [NIH](#) (National Institutes of Health)
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Directories

- [ClinicalTrials.gov: Search Clinical Trials](#) [NIH](#) (National Institutes of Health)
- [ResearchMatch](#) [NIH](#) (National Center for Research Resources)
- [Search the Studies](#) [NIH](#) (National Institutes of Health, Clinical Center)
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- [Clinical Trials: State Laws Regarding Insurance Coverage](#) (American Cancer Society)
- [Medicare and Clinical Research Studies](#) (Centers for Medicare & Medicaid Services) - PDF
- [Medicare Clinical Trial Policies](#) (Centers for Medicare & Medicaid Services)
- [Reporting Complaints Related to FDA-Regulated Clinical Trials](#) (Food and Drug Administration)
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MedlinePlus Magazine

- [Clinical Trials: A Crucial Key to Human Health Research](#) **NIH**
- [Clinical Trials: Key to Medical Progress](#) **NIH**
- [Value of Medical Research](#) **NIH**
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Children

- [Children and Clinical Studies](#) **NIH** (National Heart, Lung, and Blood Institute, National Marfan Foundation, National Center for Research Resources)
Also available in [Spanish](#)
- [Children's Assent to Clinical Trial Participation](#) **NIH** (National Cancer Institute)
- [Should Your Child Be in a Clinical Trial?](#) (Food and Drug Administration)
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Medical Encyclopedia

The A.D.A.M. Medical Encyclopedia includes over 4,000 articles about diseases, tests, symptoms, injuries, and surgeries. It also contains an extensive library of medical photographs and illustrations. For more information about A.D.A.M., see its [content review board](#).

Browse by first letter of topic:

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#ADAM

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Medical Dictionary

Type the word that you would like to find. If you're not sure of the spelling, type the first few letters, followed by an asterisk(*)

Enter search term **SEARCH** [Random Word](#)

Rhino = nose

Visit the tutorial, [Understanding Medical Words](#)

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News



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Latest Health News

Health news from HealthDay and Reuters Health Information, plus recent press announcements from major medical organizations.

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RSS Feed for This Page

Tuesday, July 20

High Heels vs. Flats (HealthDay)

Related MedlinePlus Topics: [Heat Injuries and Disorders](#), [Leg Injuries and Disorders](#), [Women's Health](#)

Monday, July 19

Aggressive Drug Therapy May Help Slow Spread of AIDS (HealthDay)

Infections in British Columbia cut in half since regimen introduced in 1996, study finds

Related MedlinePlus Topics: [AIDS](#), [AIDS Medicines](#)

Autistic Kids Often Easier Eaters, but Nutrition OK (HealthDay)

Slower, pickier eating can arise in infancy, but growth tends to be unimpaired, study finds

Related MedlinePlus Topics: [Autism](#), [Child Nutrition](#), [Toddler Nutrition](#)

Bad Cholesterol Common, but Screening Rates Low among Young Adults (Centers for Disease Control and Prevention)

Ban Point of Sale Tobacco Ads in Retail Outlets, Researchers Urge (HealthDay)

Teens twice as likely to try smoking if they frequent stores plastered with cigarette ads, study shows

Related MedlinePlus Topic: [Smoking and Youth](#)

Better Way to Predict Success of Second IVF Attempt? (HealthDay)



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Directories

MedlinePlus provides links to directories to help you find libraries, health professionals, services and facilities. NLM does not endorse or recommend the organizations that produce these directories, nor the individuals or organizations that are included in the directories.

Libraries

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Doctors and Dentists--General

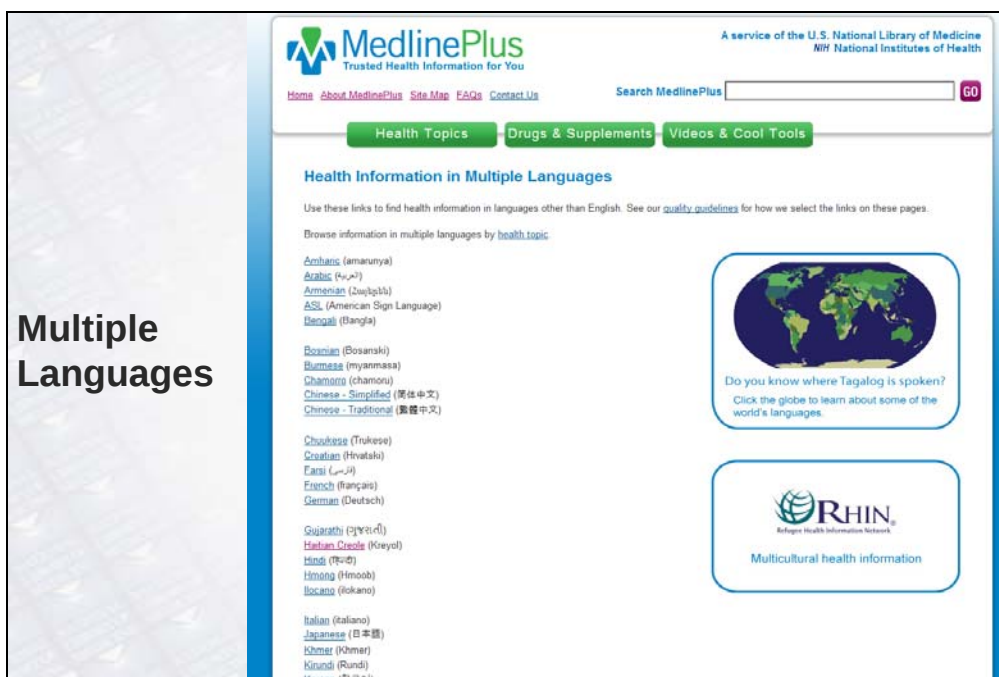
[AMA Physician Select...Online Doctor Finder](#) (American Medical Association)
[DocFinder](#) (Administrators in Medicine)
[Find a Dentist](#) (Academy of General Dentistry)
[Find a Dentist: ADA Member Directory](#) (American Dental Association)
[Medicare Physician and Other Healthcare Professional Directory](#) (Centers for Medicare & Medicaid Services)

Hospitals and Clinics--General

[Find a Health Center](#) (Health Resources and Services Administration)
[Find a Provider: TRICARE Provider Directories](#) (TRICARE Management Activity)
[Hospital Quality Compare](#) (Centers for Medicare & Medicaid Services)

Doctors and Dentists--Specialists

[AACE Physician Finder](#) (American Association of Clinical Endocrinologists)
[AAP Pediatrician Referral Service](#) (American Academy of Pediatrics)
[ACOG's Physician Directory](#) (American College of Obstetricians and Gynecologists)
[American Board of Hospice and Palliative Medicine Physician Directory](#) (American Board of Hospice and Palliative Medicine)
[American College of Rheumatology Geographic Membership Directory](#) (American College of Rheumatology)
[American College of Surgeons Membership Directory](#) (American College of Surgeons)
[American Osteopathic Association O.O. Database](#) (American Osteopathic Association)
[American Society for Gastrointestinal Endoscopy Find a Doctor](#) (American Society for Gastrointestinal Endoscopy)
[Cancer Genetics Services Directory](#) (National Cancer Institute)



MedlinePlus Mobile

- Available in English and Spanish
- Includes a subset of content from the full Web site.
- Over 800 diseases, wellness topics, the latest health news, an illustrated medical encyclopedia, and information on prescription and over-the-counter medications.



<http://m.medlineplus.gov>

Awards and Recognition



One of 5 winners - Best of 2005 in E-Health category internationally



“Web Sites that Work” – recognized as the “most reliable and easiest to navigate” government health Web site

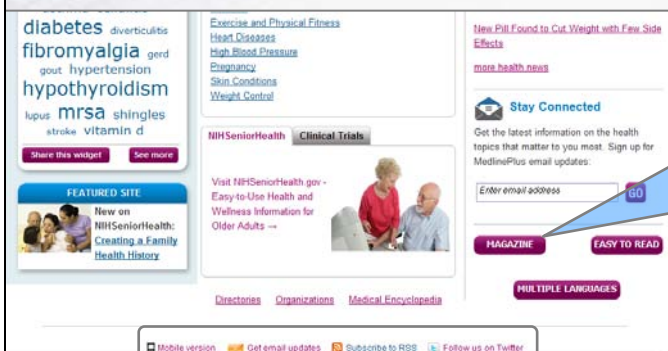


(September 30, 2008)

Mentioned as one of the best places to find medical information

<http://www.nlm.nih.gov/medlineplus/recognition.html>

Additional Features



NIH Medline Magazine

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- E-mail announcement list with links to consumer health topics and Web sites
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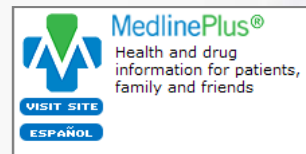
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Spanish version: <http://medlineplus.gov/esp>

Information Rx Program

The screenshot shows the Information Rx Program website. At the top, it says "WELCOME" and "Information Rx a FREE information prescription program from the National Library of Medicine". Logos for the American College of Physicians, National Institutes of Health, and National Library of Medicine are visible. The main content area features "MedlinePlus.gov THE WEB SITE YOUR DOCTOR PRESCRIBES" and a description of the site. Below this is a collage of images with labels like "Healthy living", "drug information", and "health topics". To the right, there are three dropdown menus for selecting professional affiliations: Physicians, Other Healthcare Professionals, and Librarians. Each menu has a "GO" button. At the bottom, there is a "Genetics HOME REFERENCE" section and a URL: <http://informationrx.org>.

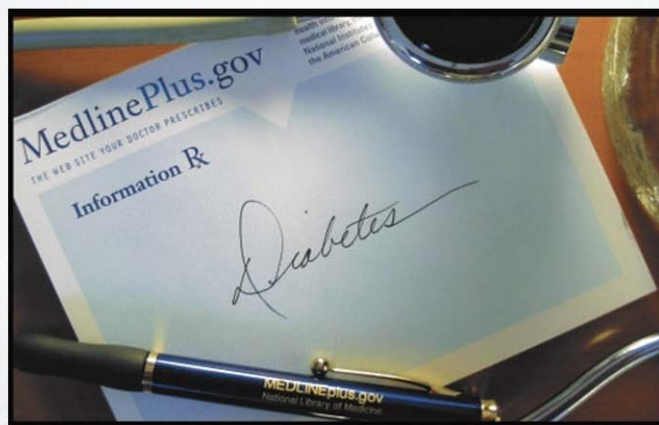
Information Rx

- Easy mechanism for physicians to refer their patients to MedlinePlus
- Partners in promoting MedlinePlus.gov; American College of Physicians Foundation, National Medical Association, American Osteopathic Association, and the American Academy of Physician Assistants

Information Rx

- NLM → Healthcare Professionals
 - Educational materials, FREE
- Healthcare Professionals → Patients to MedlinePlus
 - Information related to a new diagnosis, chronic condition, etc.

Information Prescription Pad



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Benefits of Information Rx

- Provides healthcare providers with a new clinical service that enhances patient education
- Improves quality health information searches on the Internet
- Increases patients' comfort with Internet health information-seeking and discussing findings with a healthcare provider



MedlinePlus Search Exercises

Search Example: Find general information about health issues related to travel.

- Go to <http://medlineplus.gov> and click **Health Topics**, then click **T**:



- Click **Traveler's Health** in the alphabetical list:



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Other Topics: A B C D E F G H I J K L M N O P Q R S T U V W XYZ All Topics

Traveler's Health

Traveling can increase your chances of getting sick. It takes your body time to adjust to the water, food and air in another place. Water in developing countries can contain viruses, bacteria and parasites that cause stomach upset and diarrhea. Be safe by using only bottled or purified water for drinking, making ice cubes and brushing your teeth. If you use tap water, boil it or use iodine tablets.

If you are traveling out of the country, you might also need vaccinations or prevention medicine. Which ones you need will depend on what part of the world you're visiting, the time of year, your age, overall health status and previous immunizations. See your doctor 4 to 6 weeks before your trip. Most vaccines take time to become effective. Bon voyage!

Centers for Disease Control and Prevention

Print Email Share

MEDICAL ENCYCLOPEDIA

- Click a topic of interest to you and review the information. Then close the pop-up window and click the **Home** tab at the top of the MedlinePlus page to prepare for the next search.

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Exercise 1: Dengue, Diphtheria and Malaria are potential illnesses that may affect relief workers as a result of working in Haiti after the recent earthquake. Using the alphabetical search feature, locate information about each of these diseases.

Suggested Solution:

- Click the **Health Topics** tab
- Click **D**
- Click Dengue from the alphabetical list
- Click a topic of interest to you
- Review the information retrieved and close the pop-up window
-  Repeat these steps for: Diphtheria and Malaria

Exercise 2: Locate disaster preparation and recovery information written in Haitian Creole.

Suggested Solution:

- | | |
|--------|--|
| Click | the Multiple Languages button at the bottom of the Home page |
| Click | Haitian Creole (Kreyol) |
| Scroll | down to Disaster Preparation and Recovery |
| Select | a topic in Kreyol |
| Review | the information and close the pop-up window |

Exercise 3: What is the risk of an earthquake occurring in my state? What precautions should I take to prepare for an earthquake?

Suggested Solution:

- | | |
|--------|--|
| Click | the Health Topics tab |
| Click | <u>E</u> |
| Click | <u>Earthquakes</u> from the alphabetic list |
| Click | <u>Directories</u> under “Reference Shelf” |
| Click | <u>Earthquake Risk by State and Territory</u> (Federal Emergency Management Agency) |
| Locate | your state on the chart and close the pop-up window |
| Scroll | back up to the middle of the page |
| Click | <u>Related Issues</u> under “Learn More” |
| Click | <u>Are You Ready? Earthquakes</u> (Federal Emergency Management Agency) |
| Review | the information retrieved and close the pop-up window |

Exercise 4: What are the risk factors and warning signs of stroke?

Keyboard Help:

- | | |
|-------|--|
| Click | the Health Topics tab |
| Click | <u>S</u> |
| Click | <u>Stroke</u> from the alphabetical list |
| Click | <u>Diagnosis/Symptoms</u> under Basics |

- | | |
|-------|--|
| Click | <u>Stroke Risk Factors and Symptoms</u> <i>NIH</i> (National Institute of Neurological Disorders and Stroke) and review the information retrieved |
| Close | the pop-up window |

Exercise 5: Find information on child and teen health.

Keyboard Help:

- | | |
|-------|--|
| Click | the Health Topics tab |
| Click | <u>Children and Teenagers</u> under Demographic Groups |
| Click | a topic of your choice and review the information retrieved |
| Close | the pop-up window |

Exercise 6: Locate information on prostate cancer prevention and screening.

Keyboard Help:

- | | |
|--------|--|
| Click | the Health Topics tab |
| Click | <u>P</u> |
| Click | <u>Prostate Cancer</u> from the alphabetical list |
| Click | <u>Prevention/Screening</u> under Basics |
| Click | <u>Prostate Cancer (PDQ): Prevention</u> <i>NIH</i> (National Cancer Institute) |
| Review | the information retrieved and close the pop-up window |
| Click | <u>Prostate-Specific Antigen (PSA) Test</u> <i>NIH</i> (National Cancer Institute) and review the information retrieved |
| |  Note that this information is also available in Spanish. |
| Close | the pop-up window |

Exercise 7: Are there any side effects that patients taking *Ritalin* should know about?

Keyboard Help:

- | | |
|--------|---|
| Click | the Drugs and Supplements tab |
| Click | <u>R</u> from the alphabetical drug list |
| Scroll | to <i>Ritalin</i> ® and click <u>Methylphenidate</u> |

- | | |
|--------|--|
| Click | <u>What side effects can this medication cause?</u> |
| Review | the information |

Exercise 8: Using the MedlinePlus search box, locate information on factors to consider before using an alternative medicine therapy.

Keyboard Help:

- | | |
|--------|--|
| Type | alternative medicine in the Search MedlinePlus box at the top of the page |
| Click | the Go button |
| Click | <u>Complementary and Alternative Medicine</u> in the list of results |
| Click | <u>Be an Informed Consumer</u> NIH (National Center for Complementary and Alternative Medicine) under Start Here |
| Review | the information retrieved |
| Close | the pop-up window |

Exercise 9: Find the MedlinePlus AIDS page and link to the first news article. Next, view the AIDS Interactive Tutorial.

Keyboard Help:

- | | |
|-------|--|
| Click | the Health Topics tab |
| Click | <u>A</u> |
| Click | <u>AIDS</u> in the alphabetical list |
| Click | <u>Latest News</u> under Basics |
| Click | the link of your choice, review the information retrieved, then close the pop-up window or the browser Back button to return to the AIDS page |
| Click | <u>Tutorials</u> under "Multimedia & Cool Tools" near the top of the page |
| Click | <u>HIV and AIDS</u> (Patient Education Institute) |
| Click | the Start Interactive Tutorial button and follow the instructions |
| Close | the tutorial window and return to the MedlinePlus AIDS health topic page |

Exercise 10: Using the Medical Encyclopedia, locate an illustration depicting blood testing for diabetes.

Keyboard Help:

- Click **Medical Encyclopedia** at the bottom of the Home page
- Click **D**
- Click **Diabetes** in the alphabetical list
- Click the **Blood test** link (or the image above it) under **Images** to the right of the page
- Review the information retrieved

NLM Environmental Health and Toxicology Information Portal



NLM Environmental Health and Toxicology Information Portal



What is TOXNET?

- TOXicology Data NETwork
- A free Web-based system of searchable databases covering
 - Environmental health
 - Toxicology
 - Hazardous chemicals
 - Toxic releases

Types of Information in TOXNET Databases

- Specific chemicals, mixtures, and products
- Unknown chemicals
- Specific toxic effects in humans and/or animals
- Examples
 - What are some probable routes of human exposure to lead?
 - What solvents can cause CNS (central nervous system) depression in humans?
 - What environmental triggers can cause asthma in children?

TOXNET on the Web

- | | |
|---|---|
| <ul style="list-style-type: none">• <u>Toxicology Data</u><ul style="list-style-type: none">– HSDB– CCRIS– IRIS– ITER– LactMed– GENE-TOX• <u>Toxicology Literature</u><ul style="list-style-type: none">– TOXLINE– DART/ETIC | <ul style="list-style-type: none">• <u>Chemical Information</u><ul style="list-style-type: none">– ChemIDplus– HSDB Structures– NCI-3D• <u>Toxic Release Information</u><ul style="list-style-type: none">– TRI (1987-2008)– TOXMAP• <u>Environmental Health</u><ul style="list-style-type: none">– Haz-Map– Tox Town– Household Products |
|---|---|

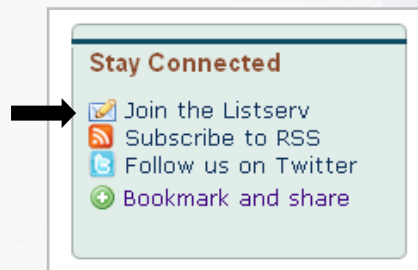
<http://toxnet.nlm.nih.gov>

NLM's TOX/ENV Listserv

- An e-mail announcement list
- Announces updates to SIS's resources, services, and outreach activities in environmental health and toxicology

Access:

- From the NLM Environmental Health and Toxicology Portal: <http://tox.nlm.nih.gov>, under **Stay Connected**, click: "Join the Listserv"



Access



<http://sis.nlm.nih.gov/enviro.html>



<http://toxnet.nlm.nih.gov>

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Hazardous Substances Data Bank



HSDB

The screenshot shows the TOXNET Toxicology Data Network homepage. At the top, there's a header with the NLM logo and the text 'United States National Library of Medicine'. Below this is a navigation bar with links: 'TOXNET PDA Access', 'SIS Home', 'About Us', 'Site Map & Search', and 'Contact Us'. A secondary navigation bar includes 'Env. Health & Toxicology', 'TOXNET', and 'HSDB'. The main heading is 'Hazardous Substances Data Bank (HSDB) - Comprehensive, peer-reviewed toxicology data for about 5,000 chemicals.' Below this, there are three main sections: 'Select Database', 'Search HSDB', and 'Env. Health & Toxicology'. The 'Select Database' section lists various databases including ChemIDplus, HSDB, TOXLINE, CCRIS, DART, GENETOX, IRIS, ITER, LactMed, Multi-Database, TRI, Haz-Map, Household Products, TOXMAP, and TOXNET Home. The 'Search HSDB' section features a search input field with example text '(e.g. antifreeze kidney failure, chromium compounds, 7718-54-9)', buttons for 'Search', 'Clear', and 'Help', and a section for adding synonyms and CAS numbers with 'Yes' and 'No' radio buttons. The 'Env. Health & Toxicology' section includes a 'Portal to environmental health and toxicology resources' with a 'VISIT SITE' button and a 'Support Pages' section with links to Help, Fact Sheet, Sample Record, HSDB Scientific Review Panel, and TOXNET FAQ. At the bottom, there's an 'Additional Resource' section and a URL: 'http://toxnet.nlm.nih.gov'.

Hazardous Substances Data Bank (HSDB)

- Comprehensive toxicology data
- Over 5000 records – fully referenced
- Created and maintained by NLM
- Factual database/online handbook
- Peer-reviewed by a panel of experts in the areas of hazardous substances and toxicology
- Access from PubMed searches

HSDB Content

- Human Health Effects – evidence of carcinogenicity
- Emergency Medical Treatment
- Animal Toxicity Studies
- Metabolism/ Pharmacokinetics
- Pharmacology
- Environmental Fate & Exposure
- Environmental Standards & Regulations
- Chemical/Physical Properties
- Chemical Safety & Handling
- Occupational Exposure Standards
- Manufacturing/Use Information
- Laboratory Methods
- Special References
- Synonyms and Identifiers
- Administrative Information

HSDB Information Sources

- Books
- Government documents
 - Department of Transportation
 - Occupational Safety and Health Administration
 - Environmental Protection Agency
- Technical reports
- Selected primary literature
- Databases

HSDB Information Sources

- Data sources include
 - International Agency for Research on Cancer
 - World Health Organization
 - American Conference of Governmental Industrial Hygienists



United States
National Library
of Medicine

TOXNET

Toxicology Data Network

TOXNET PDA Access

SIS Home | About Us | Site Map & Search | Contact Us

Env. Health & Toxicology | TOXNET | HSDB

Hazardous Substances Data Bank (HSDB) - Comprehensive, peer-reviewed toxicology data for about 5,000 chemicals.

Select Database

- ChemIDplus
- HSDB**
- TOXLINE
- CCRIS
- DART
- GENETOX
- IRIS
- ITER
- LactMed
- Multi-Database
- TRI
- Haz-Map
- Household Products
- TOXMAP
- TOXNET Home

Search HSDB

(e.g. antifreeze kidney failure, chromium compounds, 7718-54-9)

For chemicals, add synonyms and CAS numbers to search:

☒ Yes
 ☐ No

Env. Health & Toxicology



Portal to environmental health and toxicology resources

[VISIT SITE](#)

Support Pages

- Help
- Fact Sheet
- Sample Record
- HSDB Scientific Review Panel
- TOXNET FAQ

Additional Resource

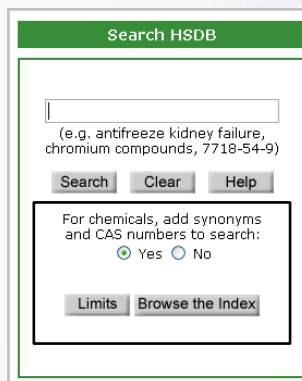
<http://toxnet.nlm.nih.gov>

Searching HSDB

- Chemical name or other name
- Synonym
- Chemical name fragment
- Chemical Abstracts Service (CAS) Registry Number
- Subject terms

Searching HSDB

- By default, the system searches for synonyms and CAS numbers of chemicals
- Refine results with
 - Truncation (*)
 - Boolean operators (AND, OR, NOT)
 - Phrase searching
 - Nested Parentheses
 - Limits
 - Index browsing



The screenshot shows the 'Search HSDB' web interface. It features a search input field with a placeholder text '(e.g. antifreeze kidney failure, chromium compounds, 7718-54-9)'. Below the input field are three buttons: 'Search', 'Clear', and 'Help'. A section titled 'For chemicals, add synonyms and CAS numbers to search:' contains two radio buttons, 'Yes' (which is selected) and 'No'. At the bottom of the interface are two buttons: 'Limits' and 'Browse the Index'.

HSDB Limits

- Click the Limits button to search
 - Exact words, singular & plural forms, word variants
 - All the words, any of the words, or as a phrase
 - In specific fields or categories of fields

Search HSDB

Search Clear Help

Add chemical synonyms and CAS numbers to search: ☐ Yes ☐ No

Search: ☐ exact words ☐ singular & plural forms ☐ word variants

Search records with: ☐ the phrase ☐ all words ☐ any words

Search in fields: ☐ all fields checked, all fields will be searched

Contract all categories Expand all categories

- ☐ Substance Identification
- ☐ Human Health Effects
- ☐ Emergency Medical Treatment
- ☐ Animal Toxicity Studies
- ☐ Metabolism/Pharmacokinetics
- ☐ Pharmacology
- ☐ Environmental Fate & Exposure
- ☐ Environmental Standards & Regulations
- ☐ Chemical/Physical Properties
- ☐ Chemical Safety & Handling
- ☐ Occupational Exposure Standards
- ☐ Manufacturing/Use Information
- ☐ Laboratory Methods
- ☐ Special References
- ☐ Synonyms and Identifiers
- ☐ Administrative Information

Search Browse the Index

Browse the Index

TOXNET
Toxicology Data Network

SIS Home About Us Site Map & Search Contact Us

HSDB Browse Results

benzene Search Clear Return to Basic Search

☒ All Words ☐ CAS Registry Number ☐ Chemical Name

Check one or more text words. Then click on SELECT.

Start of Text Word Browse: benzene

Up Down Select

Check to Select	Number of Records	Index Term
☐	1914	benzene
☐	5	benzeneacetamide
☐	7	benzeneacetate
☐	27	benzeneacetic
☐	1	benzeneacetone
☐	4	benzeneacetonebri
☐	5	benzeneamine
☐	4	benzeneanionic
☐	3	benzeneazo
☐	1	benzeneazamide
☐	2	benzeneazobenzene
☐	1	benzeneazobenzene

- Select the record(s) you want to view by clicking the appropriate box in the Check to Select column
- Click the **Select** button
- Scan the index above or below the original display by clicking the **Up** or **Down** button

Search Results—Primary Record

The initial matching chemical record is the “primary record”

Additional chemical records that contain the chemical name or search term you entered appear below

Click a substance name to retrieve the record for that substance

Items 1 through 20 of 1911 Page 1 of 96 Go to page

Substance Names are sorted in *relevance-ranked* order.

Select Record	Substance Name
☒	BENZENE 71-43-2
☐	HYDROQUINONE 123-31-9
☐	TOLUENE 108-08-3
☐	GASOLINE 8006-61-9
☐	CATECHOL 120-03-9
☐	ETHYL BENZENE

The following is the primary record for the chemical. All of the query terms were found.

The following 1910 records contain one or more of the requested chemical name(s) and all of the query terms anywhere in the record.

Search Results—Record Screen

1. Navigation buttons

2. Table of Contents

3. Chemical data

Navigation buttons: Home, Search Results, Basic Search, Details, Other Uses, Weekly Search, Download, Links, Source Links, Help

Table of Contents:

- Full Record
- MSDS/SDS
- Chemical Name
- Chemical Structure
- Chemical Formula
- Chemical Weight
- Chemical Description
- Chemical Synthesis
- Chemical Uses
- Chemical Hazards
- Chemical Safety
- Chemical Properties
- Chemical Reactions
- Chemical Stability
- Chemical Compatibility
- Chemical Storage
- Chemical Disposal
- Chemical Handling
- Chemical Transport
- Chemical Packaging
- Chemical Labeling
- Chemical Documentation
- Chemical References
- Chemical Citations
- Chemical Abstracts
- Chemical Indexing
- Chemical Classification
- Chemical Identification
- Chemical Authentication
- Chemical Verification
- Chemical Validation
- Chemical Confirmation
- Chemical Corroboration
- Chemical Cross-Check
- Chemical Cross-Reference
- Chemical Cross-Link
- Chemical Cross-Verify
- Chemical Cross-Validate
- Chemical Cross-Confirm
- Chemical Cross-Corroboration
- Chemical Cross-Cross-Check
- Chemical Cross-Cross-Reference
- Chemical Cross-Cross-Link
- Chemical Cross-Cross-Verify
- Chemical Cross-Cross-Validate
- Chemical Cross-Cross-Confirm
- Chemical Cross-Cross-Corroboration

BENZENE
CASRN: 71-43-2

For other data, click on the Table of Contents:

Human Health Effects:

Toxicity Summary:
IDENTIFICATION: Benzene is an aromatic hydrocarbon used as a solvent. It is a clear liquid with a sweet odor. Origin of the substance: Benzene occurs naturally but is primarily produced from petroleum products. Description: Benzene is used as an intermediate in the manufacture of a number of chemicals, including ethylbenzene (used in the synthesis of styrene), toluene (used in the synthesis of plastic and for the manufacture of phenolic resins and nylon intermediates), cyclohexane (used to make nylon monomers), and nitrobenzene (used in the synthesis of aniline). Benzene is also a precursor in the manufacture of urethanes, chlorobenzene, and sodium azide. Benzene was previously used widely as a solvent, but this use has decreased in many countries due to the concern over carcinogenic effects. Acute symptoms: Headache and target organs: Acute exposure to high concentrations of benzene in air results in neurological toxicity and may sensitize the myocardium to endogenous catecholamines. Acute ingestion of benzene causes gastrointestinal and neurological toxicity. Chronic exposure to benzene results primarily in hematotoxicity, including aplastic anemia, pancytopenia, or any combination of anemia, leukopenia, and thrombocytopenia. Chronic benzene exposure is associated with an increased risk of leukemia. Summary of clinical effects: Acute neurological toxicity from benzene exposure may cause headache, dizziness, disorientation, confusion, incoordination, and loss of consciousness. Exposure to high concentrations may have effects on multiple organ systems. Sudden death occurs below anesthetic concentrations of benzene. Acute exposure due to cardiac dysrhythmias. With ingestion, toxic signs and symptoms may include nausea, vomiting, and abdominal pain as well as neurological toxicity. Chronic hematological effects include anemia, thrombocytopenia, leukopenia, pancytopenia, chromosomal abnormalities, and leukemias. Dermal exposure may cause skin irritation. High risk circumstances of poisoning: The most common form of exposure to benzene is occupational, and both occupational and environmental exposures to benzene are overwhelmingly through inhalation. Dermal contact is most often only a minor source of exposure. Environmental exposure is greatest in areas of heavy automobile use due to the presence of benzene in tailpipe emissions, near service stations and from oil-gasoline leaks. In the United States, based on estimates for approximately half of the total population exposure to benzene. In countries where benzene is used as a household solvent, accidental or suicidal ingestion may occur. Compartmentalized populations: Individuals working in industries involved with benzene production (petrochemical industry, oil refineries, rubber tire or cast rubber tire manufacturing, transport or storage of benzene or benzene-containing products), and gas station employees are at risk for excess benzene exposure. Although in the United States benzene has been removed from commercial solvents, the use of industrial solvents may still be a source of exposure. Historically, benzene used as a solvent in printing inks in the lithography industry and adhesives by manufacturers led to a high degree of exposure in these industries. Routes of entry: Oral: Acute

HSDB Limits Search Fields

The **Limits** feature allows you to specify a particular field or category of fields to search. By default, the system will search all fields in all categories. To see all fields within a specific category, click the “+” beside that category.

Search Fields in 16 Categories

Search in fields:
(If no box is checked, all fields will be searched.)
Contract all categories ☐
Expand all categories ☐

- ☐ **Substance Identification**
- ☐ **Human Health Effects**
- ☐ **Emergency Medical Treatment**
- ☐ **Animal Toxicity Studies**
- ☐ **Metabolism/Pharmacokinetics**
- ☐ **Pharmacology**
- ☐ **Environmental Fate & Exposure**
- ☐ **Environmental Standards & Regulations**
- ☐ **Chemical/Physical Properties**
- ☐ **Chemical Safety & Handling**
- ☐ **Occupational Exposure Standards**
- ☐ **Manufacturing/Use Information**
- ☐ **Laboratory Methods**
- ☐ **Special References**
- ☐ **Synonyms and Identifiers**
- ☐ **Administrative Information**

Contract/Expand All Categories

Expanded Categories (All Fields)

Substance Identification

- Chemical Names
- CAS Registry Number

Human Health Effects

- Toxicity Summary
- Evidence for Carcinogenicity
- Human Toxicity Excerpts
- Human Toxicity Values
- Skin, Eye and Respiratory Irritations
- Drug Warnings
- Medical Surveillance]
- Populations at Special Risk
- Probably Routes of Human Exposure
- Body Burden
- Average Daily Intake

- Minimum Fatal Dose Level

Emergency Medical Treatment

- Emergency Medical Treatment
- Antidote and Emergency Treatment

Animal Toxicity Studies

- Toxicity Summary
- Evidence for Carcinogenicity
- Non-Human Toxicity Excerpts
- Ecotoxicity Excerpts
- National Toxicology Program Studies
- Non-Human Toxicity Values
- Ecotoxicity Values
- Ongoing Test Status
- TSCA Test Submissions

Metabolism/Pharmacokinetics

-  Metabolism/Metabolites
-  Mechanism of Action
-  Interactions

Pharmacology

-  Therapeutic Uses
-  Drug Warnings
-  Interactions
-  Drug Idiosyncrasies
-  Drug Tolerance
-  Minimum Fatal Dose Level
-  Maximum Drug Dose
-  Bionecessity

Environmental Fate & Exposure

-  Environmental Fate/Exposure Summary
-  Probably Routes of Human Exposure
-  Body Burden
-  Average Daily Intake
-  Natural Pollution Sources
-  Artificial Pollution Sources
-  Environmental Fate
-  Environmental Biodegradation
-  Environmental Abiotic Degradation
-  Environmental Bioconcentration
-  Soil Adsorption/Mobility
-  Volatilization from Water/Soil
-  Environmental Water Concentrations
-  Effluent Concentrations
-  Sediment/Soil Concentrations
-  Atmospheric Concentrations
-  Food Survey Values
-  Plant Concentrations
-  Fish/Seafood Concentrations
-  Animal Concentrations
-  Milk Concentrations
-  Other Environmental Concentrations

Environmental Standards & Regulations

-  FIFRA Requirements
-  Acceptable Daily Intakes
-  TSCA Requirements
-  CERCLA Reportable Quantities
-  RCRA Requirements
-  Atmospheric Standards
-  Clean Water Act Requirements
-  Federal Drinking Water Standards
-  Federal Drinking Water Guidelines
-  State Drinking Water Standards
-  State Drinking Water Guidelines
-  Soil Standards
-  FDA Requirements
-  Allowable Tolerances

Chemical/Physical Properties

-  Molecular Formula
-  Molecular Weight
-  Color/Form
-  Odor
-  Taste
-  Boiling Point
-  Melting Point
-  Corrosivity
-  Critical Temperature & Pressure
-  Density/Specific Gravity
-  Dissociation Constants
-  Heat of Combustion
-  Heat of Vaporization
-  Octanol/Water Partition Coefficient
-  pH
-  Solubilities
-  Spectral Properties
-  Surface Tension
-  Vapor Density
-  Vapor Pressure
-  Relative Evaporation Rate

-  Viscosity
-  Other Chemical/Physical Properties

Chemical Safety & Handling

-  Hazards Summary
-  DOT Emergency Guidelines
-  Odor Threshold
-  Skin, Eye and Respiratory Irritations
-  Fire Potential
-  NFPA Hazard Classification
-  Flammable Limits
-  Flash Point
-  Autoignition Temperature
-  Fire Fighting Procedures
-  Toxic Combustion Products
-  Firefighting Hazards
-  Explosive Limits & Potential
-  Hazardous Reactivities & Incompatibilities
-  Hazardous Decomposition
-  Hazardous Polymerization
-  Other Hazardous Reaction
-  Prior History of Accidents
-  Immediately Dangerous to Life or Health
-  Protective Equipment & Clothing
-  Preventive Measures
-  Stability/Shelf Life
-  Shipment Methods and Regulations
-  Storage Conditions
-  Cleanup Methods
-  Disposal Methods
-  Radiation Limits & Potential

Occupational Exposure Standards

-  OSHA Standards
-  Threshold Limit Values
-  NIOSH Recommendations

-  Immediately Dangerous to Life or Health
-  Other Occupational Permissible Levels

Manufacturing/Use Information

-  Major Uses
-  Manufacturers
-  Methods of Manufacturing
-  General Manufacturing Information
-  Formulations/Preparations
-  Impurities
-  Consumption Patterns
-  U. S. Production
-  U. S. Import
-  U. S. Exports

Laboratory Methods

-  Clinical Laboratory Methods
-  Analytic Laboratory Methods
-  Sampling Procedures

Special References

-  Special Reports

Synonyms and Identifiers

-  Related HSDB Records
-  Synonyms
-  Associated Chemicals
-  Formulations/Preparations
-  Shipping Name/ Number DOT/UN/NA/IMO
-  Standard Transportation Number
-  EPA Hazardous Waste Number
-  Wiswesser Line Notation
-  RTECS Number

Administrative Information

-  Hazardous Substances Databank Number
-  Last Review Date



HSDB Exercises

Search Example: What are some chemicals used in dry cleaning and what are their human health effects?

- ▶ Go to <http://toxnet.nlm.nih.gov> and click **HSDB** in the **Select Database** column
- ▶ Type **“dry cleaning”** in the search box.

United States National Library of Medicine
TOXNET
Toxicology Data Network

TOXNET PDA Access SIS Home About Us Site Map & Search Contact Us

Env. Health & Toxicology TOXNET HSDB

Hazardous Substances Data Bank (HSDB) - Comprehensive, peer-reviewed toxicology data for about 5,000 chemicals.

Select Database

- ChemIDplus
- HSDB**
- TOXLINE
- CCRIS
- DART
- GENETOX
- IRIS

Search HSDB

"dry cleaning"

(e.g., androsee kidney failure, chloroform compounds, 7718-54-9)

Search Clear Help

Env. Health & Toxicology

Portal to environmental health and toxicology resources

VISIT SITE

Support Pages

- ▶ Click the **Search** button

United States National Library of Medicine
TOXNET
Toxicology Data Network

SIS Home About Us Site Map & Search Contact Us

HSDB Search Results

Env. Health & Toxicology TOXNET HSDB

"dry cleaning" Search Clear Limits

For chemicals, add synonyms and CAS numbers to search: ☒ Yes ☐ No

Items 1 through 20 of 37
Substance Names are sorted in [relevancy ranked order](#).

Pages: 12

Select Record Substance Name

The following 37 records contain all of the query terms anywhere in the record.

1	☐	TETRACHLOROETHYLENE 127-18-4
2	☐	TRICHLOROETHYLENE 79-01-6
3	☐	TETRACHLOROETHANES 25322-20-7
4	☐	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE 76-13-1
5	☐	STODDARD SOLVENT 8052-41-3
6	☐	CYCLOHEXYLAMINE 108-91-8

- ▶ Click the first chemical and review the information in the right frame.

Hazardous Substances Data Bank
HSDB

Next Item Search Results Basic Search Details Other Files Modify Search TOXNET Home NATIONAL LIBRARY OF MEDICINE

Download Limits Browse Index Help

Item 1 of 37

Table of Contents
Contract all categories Expand all categories
Select Clear

- ☐ FULL RECORD
- ☐ BEST SECTIONS
- ☒ Human Health Effects
- ☐ Evidence for Carcinogenicity
- ☐ Human Toxicity Excerpts
- ☐ Skin, Eye and Respiratory Irritations
- ☐ Drug Warnings
- ☐ Medical Surveillance
- ☐ Populations at Special Risk
- ☐ Probable Routes of Human Exposure
- ☐ Body Burden
- ☐ Average Daily Intake

TETRACHLOROETHYLENE
CASRN: 127-18-4

For other data, click on the Table of Contents

Best Sections

Formulations/Preparations :
Tetrachloroethylene is avail in the USA in the following grades: purified, technical, USP, spectrophotometric, & **dry-cleaning**. The technical & **dry-cleaning** grades both meet specifications for technical grade & differ only in the amount of stabilizer added to prevent decomposition. Stabilizers ... incl amines or mixtures of epoxides & esters. Typical analysis of the commercial grade is ... nonvolatile residue, 0.0003%; free chlorine, none; moisture, no cloud at -5 deg C ... USP grade contains not less than 99.0% & no more than 99.5% tetrachloroethylene, the remainder consisting of ethanol. ...
[IARC. Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man. Geneva: World Health Organization, International Agency for Research on Cancer,

- Click **Human Health Effects** in the Table of Contents frame on the left to review the human health effects information:

Hazardous Substances Data Bank
HSDB

Next Item Search Results Basic Search Details Other Files Modify Search TOXNET Home NATIONAL LIBRARY OF MEDICINE

Download Limits Browse Index Help

Item 1 of 37

Table of Contents
Contract all categories Expand all categories
Select Clear

- ☐ FULL RECORD
- ☐ BEST SECTIONS
- ☒ Human Health Effects
- ☐ Evidence for Carcinogenicity
- ☐ Human Toxicity Excerpts
- ☐ Skin, Eye and Respiratory Irritations
- ☐ Drug Warnings
- ☐ Medical Surveillance
- ☐ Populations at Special Risk
- ☐ Probable Routes of Human Exposure
- ☐ Body Burden
- ☐ Average Daily Intake

TETRACHLOROETHYLENE
CASRN: 127-18-4

For other data, click on the Table of Contents

Human Health Effects:

Evidence for Carcinogenicity:
Evaluation: There is limited evidence in humans for the carcinogenicity of tetrachloroethylene. There is sufficient evidence in experimental animals for the carcinogenicity of tetrachloroethylene. Overall evaluation: Tetrachloroethylene is probably carcinogenic to humans (Group 2A). In making the overall evaluation, the working group considered the following evidence: (1) Although tetrachloroethylene is known to induce peroxisome proliferation in mouse liver, a poor quantitative correlation was seen between peroxisome proliferation and tumor formation in the liver after administration of tetrachloroethylene by inhalation. The spectrum of mutations in proto-oncogenes in liver tumors from mice treated with

- Click the **Basic Search** button at the top of the screen to prepare for the next search.

Hazardous Substances Data Bank
HSDB

Next Item Search Results **Basic Search** Details Other Files Modify Search TOXNET Home NATIONAL LIBRARY OF MEDICINE

Download Limits Browse Index Help

Item 1 of 37

TETRACHLOROETHYLENE

Exercise 1: What are the health risks associated with *Ecstasy*?

Keyboard Help:

- | | |
|-------|--|
| Type | ecstasy in the search box |
| Click | the Search button |
| Click | the first record and review the information in the right frame |
| Click | the Basic Search button at the top of the screen to prepare for the next search |

Exercise 2: Using the limits feature, search for the probable routes of human exposure to *asbestos*.

Keyboard Help:

- | | |
|-------|--|
| Click | the Limits button |
| Type | asbestos in the search box |
| Click | the plus sign (+) next to <u>Human Health Effects</u> to expand the category |
| Check | the box for "Probable Routes of Human Exposure" |
| Click | the Search button |
| Click | ASBESTOS and review the "Probable Routes of Human Exposure" in the right frame |
| |  Use your browser's back button to return to the search results screen. Then select the other substance names and review probable routes of human exposure for those substances |
| Click | the Basic Search button at the left of the screen to prepare for the next search |

Exercise 3: What are some anabolic steroids? Are there any drug warnings associated with anabolic steroids?

Keyboard Help:

- | | |
|--------|--|
| Type | anabolic steroids in the search box |
| Click | the Search button |
| Click | the first chemical and review the information in the right frame |
| Click | <u>Drug Warnings</u> under <u>Human Health Effects</u> in the Contents frame |
| Review | the information in the right frame |
| Click | the Basic Search button at the top of the screen to prepare for the next search |

Exercise 4: I have heard of teens using cans of whipped cream as a drug. What is dangerous about these cans?

Keyboard Help:

Type	whipped cream in the search box
Click	the Search button
Click	NITROUS OXIDE
Review	the information in the right frame
Click	the Basic Search button at the top of the screen to prepare for the next search

Exercise 5: Using the limits feature, identify some chemicals manufactured by Monsanto.

Keyboard Help:

Click	the Limits button
Expand	the <u>Manufacturing/Use Information</u> category
Check	the box for "Manufacturers"
Type	monsanto in the search box
Click	the Search button
Review	the substance names retrieved

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Other Resources

Drug Suite

- ▶ Dietary Supplements Labels Database
- ▶ Drug Information Portal
- ▶ Pillbox ^{BETA}

Disaster Information & Preparedness Suite

- ▶ REMM
- ▶ Tox Town
- ▶ WISER



Other Resources

Other Resources

Drug Suite:

- Dietary Supplements Labels Database
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- REMM
- ToxTown
- WISER

Dietary Supplements Labels Database



The screenshot shows the homepage of the Dietary Supplements Labels Database. The header includes the NLM logo and the text "United States National Library of Medicine". The main title is "Dietary Supplements Labels Database" with the subtitle "brands, ingredients, and references". A search bar is located in the top right corner. A navigation menu includes links for Home, About, FAQ, Glossary, Recalls, Related Resources, Contact, and Help. The left sidebar contains three main categories: Products (All Products, Men, Women, Seniors, Kids/Teens), Active Ingredients (All Ingredients, Vitamins, Minerals, Herbs/Plants, Amino Acids, Enzymes, Specialty), and Manufacturers (All Manufacturers). The main content area features a paragraph explaining the database's purpose, a disclaimer about manufacturer claims, and a list of characteristics for ingredients.

Products

- ▶ All Products
- ▶ Men
- ▶ Women
- ▶ Seniors
- ▶ Kids/Teens

Active Ingredients

- ▶ All Ingredients
- ▶ Vitamins
- ▶ Minerals
- ▶ Herbs/Plants
- ▶ Amino Acids
- ▶ Enzymes
- ▶ Specialty

Manufacturers

- ▶ All Manufacturers

The Dietary Supplements Labels Database offers information about label ingredients in more than 4,000 selected brands of dietary supplements. It enables users to compare label ingredients in different brands. Information is also provided on the "structure/function" claims made by manufacturers. *These claims by manufacturers have not been evaluated by the Food and Drug Administration. Companies may not market as dietary supplements any products that are intended to diagnose, treat, cure or prevent any disease.*

Ingredients of dietary supplements in this database are linked to other National Library of Medicine databases such as [MedlinePlus®](#) and [PubMed®](#) to allow users to understand the characteristics of ingredients and view the results of research pertaining to them, including the following characteristics:

- Uses in humans
- Adverse effects
- Mechanism of action

<http://dietarysupplements.nlm.nih.gov>

Dietary Supplements Labels Database

- Ingredient information on over 4,000 brands of dietary supplements sold in the U.S.
- Provides a centralized information portal that facilitates making informed decisions about supplements
- Provides direct links to health information, fact sheets, research findings, and ongoing clinical studies

Based on the Dietary Supplements On-Line Database (DSOL) ©2005-2007 by DeLima Associates. All rights reserved.

Drug Information Portal



NLM Drug Information Portal

- Information on over 19,000 selected drugs
 - Cover drugs from entry into clinical trials through entry into the marketplace
- Search by trade name or generic name
 - Spell checker gives suggestions if name not found
 - Use asterisk (*) before and/or after partial names
- Results return
 - Type and usage summary
 - Links to further information

Pillbox ^{BETA}



rapid identification, reliable information

United States
National Library of Medicine
National Institutes of Health



[Home](#)
[View All Images](#)
[About](#)
[FAQ](#)
[Feedback](#)

Identify an unknown pill



visual identification/exploration
Adobe Flex powered



HTML-based
screen-reader compatible

What?

Pillbox enables rapid identification of unknown solid-dosage medications (tablets/capsules) based on physical characteristics and high-resolution images.

Once a medication is identified, Pillbox provides links to drug information and FDA-approved drug labels.

How?

The National Library of Medicine is partnering with the Food and Drug Administration to enhance patient safety by providing an identification and reference system for solid-dosage medications.

Pillbox's data and search engine are also accessible through an API.

[National Library of Medicine](#)
[National Institutes of Health](#)
[U.S. Dept. of Health & Human Services](#)
[Copyright](#)
[Accessibility](#)

Last updated: May 20, 2010

<http://pillbox.nlm.nih.gov>

Pillbox ^{BETA}

- Combines pictures of tablets and capsules with FDA-approved appearance information (imprint, shape, color, etc.) to enable users to visually search for and identify an unknown solid dosage pharmaceutical.
 - Primarily for emergency physicians, first responders, Poison Control Center staff, and concerned citizens
- Once a solid dosage form has been identified, additional information is provided, including brand/generic name, ingredients, and the National Drug File identification number.

Disaster Information & Preparedness Suite



The Disaster Information Management Research Center (DIMRC)

was created by the National Library of Medicine (NLM) to aid the nation's disaster management efforts. NLM is considered a global leader in providing authoritative, credible, and timely information. DIMRC provides free access to resources that will assist government agencies, private organizations, and local communities to plan, prepare, respond, and recover from disasters and other public health emergencies.

Disaster Information & Preparedness Suite

<http://disasterinfo.nlm.nih.gov>

Emergency Response Tools

[Radiation Emergency Medical Management \(REMM\)](#)

Guidance on the clinical diagnosis and treatment of mass casualty radiological/nuclear events for health care providers

- [Mobile Application](#)

[Wireless Information System for Emergency Responders \(WISER\)](#)

A system to help emergency responders identify and respond to hazardous materials incidents. Contains information on over 400 chemical, biological and radiological agents

- [Mobile Application](#)

Medical and Public Health Literature

[PubMed](#)

Thousands of references on disaster/emergency preparedness and response including natural disasters, bioterrorism, chemical terrorism, and pandemic flu

- [Mobile Application](#)

[PubMed Central](#)

Includes archive of thousands of free full-text articles on disaster/emergency preparedness and response

[Resource Guide for Public Health Preparedness](#)

A gateway to free online resources on public health preparedness including expert guidelines, fact sheets, Web sites, technical reports, articles, and other tools aimed at the public health community

Disaster Health Links

- Biological and Chemical Warfare Agents
- Disaster Recovery and Environmental Health
- H1N1 (Swine) Flu
- Haiti Earthquake
- Health Effects from the Collapse of the World Trade Center
- Hurricanes, Tornadoes, and Wildfires
- Public Health Preparedness for Mass Gatherings
- Special Populations: Emergency and Disaster Preparedness

Disaster Information & Preparedness Suite

Other Resources

[TOXNET - Toxicology Data Network](#)

More than 14 databases available on toxicology, toxic chemical releases, and environmental health including:

- [HSDB - Hazardous Substances Data Bank](#)

Comprehensive toxicological data on over 5,000 chemicals

- [TOXLINE](#) - Over three million references from the toxicology literature, including [MEDLINE/PubMed](#), research in progress, and meeting abstracts

- [TOXMAP](#) - Environmental Health e-maps
Locations of certain toxic chemical releases and hazardous waste sites

[Tox Town](#)

Environmental health concerns and toxic chemicals where you live, work, and play

[PHPartners.org](#)

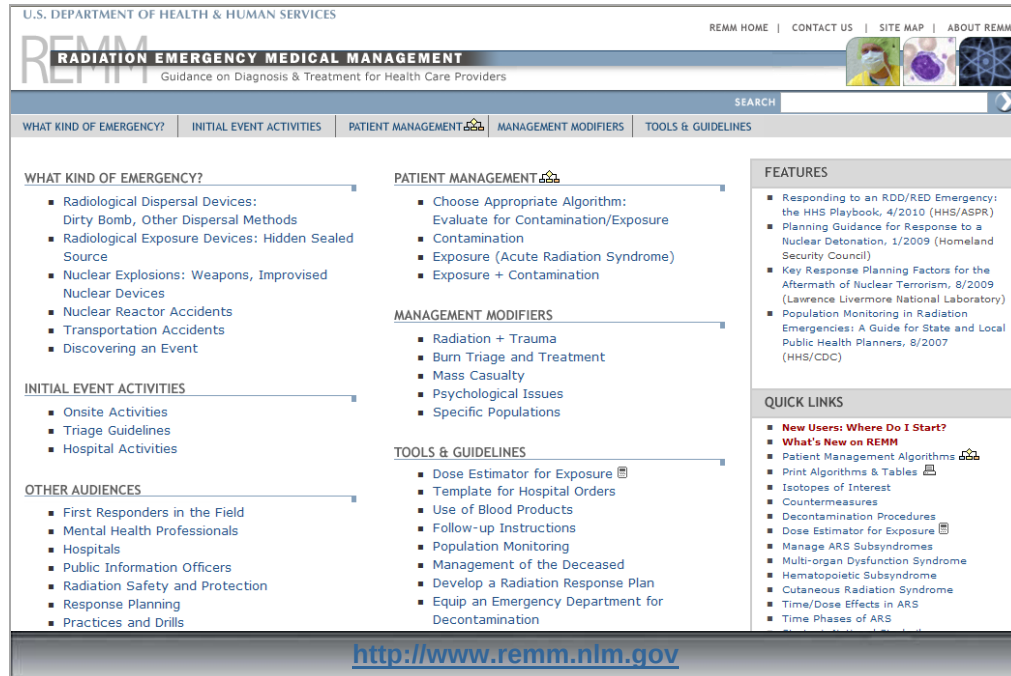
An information portal for the public health workforce

[MedlinePlus Topics](#) (also available in Spanish)

Authoritative information from NLM, the National Institutes of Health (NIH), other government agencies and health-related organizations that directs you to information to help answer health questions

- Biodefense and Bioterrorism
- Coping with Disasters
- Disaster Preparedness and Response
- Earthquakes, Floods, and Tsunamis
- Post-Traumatic Stress Disorder (PTSD)
- Radiation Emergencies
- and more...

Radiation Emergency Medical Management



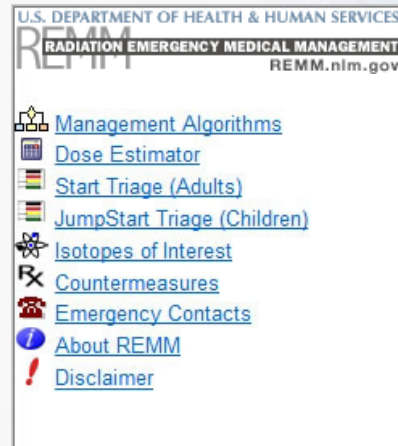
REMM

- Guidance for health care providers on clinical diagnosis and treatment during mass casualty radiological/nuclear emergencies
 - Primarily for physicians
- Understandable for those with no formal radiation medicine expertise
- Downloadable in advance
- Mobile Application

Radiation Emergency Medical Management

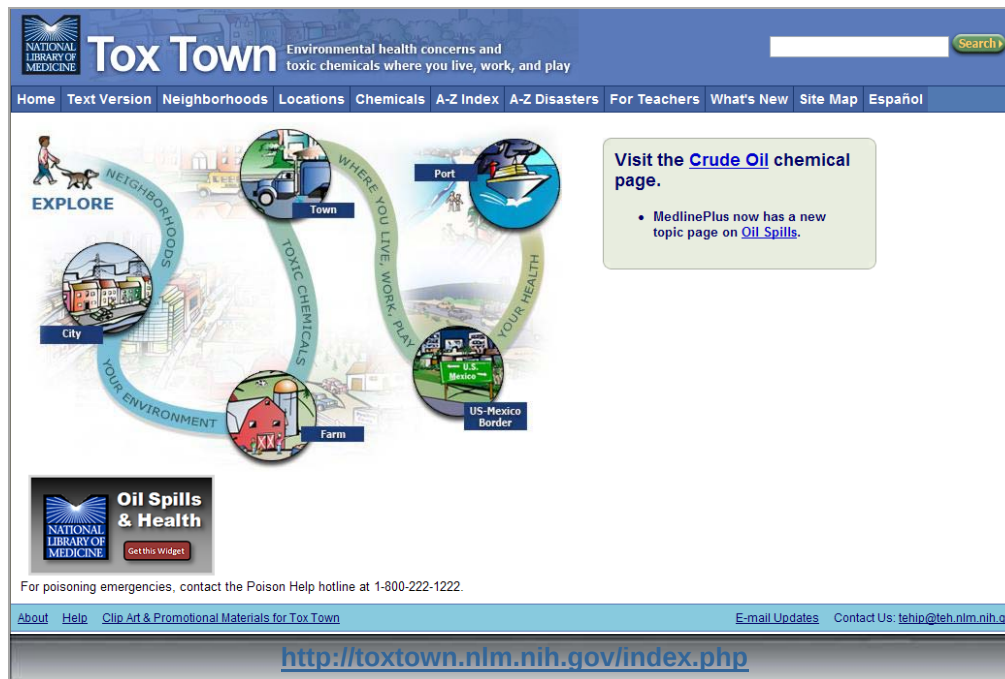
REMM Mobile Application

- Guidance on diagnosis and treatment for healthcare providers during radiation events. Download REMM to your mobile device.



<http://www.remm.nlm.gov>

Tox Town



Tox Town

- Non-technical descriptions of chemicals
- Links to selected, authoritative chemical information on the Internet
- How the environment can impact human health
- Internet resources on environmental health topics

Wireless Information System for Emergency Responders

**Wireless Information System
for Emergency Responders**



**United States
National Library of Medicine**
Specialized Information Services
Search SIS Site:

[Home](#)
[About](#)
[News](#)
[Download](#)
[WebWISER](#)
[Help](#)
[Contact Us](#)

Welcome to **WISER**

the Wireless Information System for Emergency Responders

WISER is a system designed to assist first responders in hazardous material incidents. WISER provides a wide range of information on hazardous substances, including substance identification support, physical characteristics, human health information, and containment and suppression advice.

New! On 6/8/2010, version 1.0 of [WISER for iPhone/iPod touch](#) was released on the Apple App Store. See [more information](#) on this exciting new WISER release.

New! As of 8/21/09, the 4.3 version of WISER is available for [download](#) or via [WebWISER](#). See [what's new in 4.3](#).

Download

WISER is available as a standalone application on Windows Mobile devices, Palm OS PDAs, and Microsoft Windows PCs. [Download for free!](#)

Visit the [training page](#) to download materials that aid with training on the usage of WISER.

WebWISER

When an Internet connection is available, use your web browser to access the same functionality of the standalone applications. [WebWISER](#) supports both PC- and PDA-based browsers, including

Other Hazmat-Related Resources at NLM

Disaster Information Management Research Center

Radiation Emergency Medical Management (REMM)

TOXNET

MedlinePlus offers trusted links to general health topics

- Fire Safety
- Disasters
- Disaster Preparation and Recovery
- Poisoning
- and more...

Household Products Database

Tox Town

Other Environmental Health Topics

Other Hazmat-Related Resources

DOT ERG - (Department of Transportation - Emergency Response Guidebook)

<http://wiser.nlm.nih.gov>

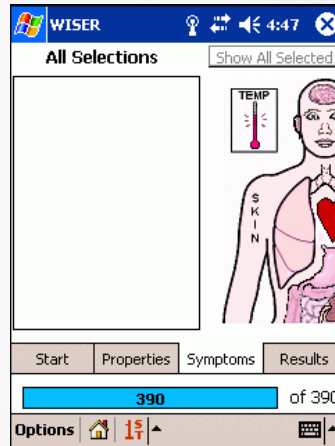
WISER

- Rapid access to information about hazardous substances
- Substance identification support
- Physical characteristics
- Human health information
- Containment and suppression advice
- Available on Palm, Pocket PC, and Microsoft Windows™ platforms
- A web-based WISER supports Web browsers for PCs and PDAs, including BlackBerry
- Mobile Application

Wireless Information System for Emergency Responders

WISER Mobile Application

- Software for Palm Powered or Pocket PC devices to assist first responders in hazardous material incidents.



<http://wiser.nlm.nih.gov>

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Select Internet Resources



Selected Internet Resources in Health

Agency for Healthcare Research and Quality

<http://www.ahrq.gov>

—Although this Web site is primarily for health care professionals, it also contains a section on consumer health. Other topics include Clinical Information, Funding Opportunities, Research Findings, Specific Populations, Public Health Preparedness, Data & Surveys, and Quality and Patient Safety.

American Medical Association

<http://www.ama-assn.org>

—Information for physicians, doctor and hospital finders, the Journal of the American Medical Association, and health and fitness information.

BioMed Central

<http://www.biomedcentral.com/browse/journals>

—Free access to a wide variety of over 100 journals and other services. The Quick Search feature allows searching of not only BioMed Central, but also PubMed and PubMed Central.

CDC Diseases and Conditions

<http://www.cdc.gov/DiseasesConditions>

—An index of illnesses, conditions, concerns, and programs from the Center for Disease Control and Prevention. Includes links to relevant publications, news and events, and related CDC organizations.

CDC Environmental Health

<http://www.cdc.gov/environmental>

—Informs the general public about environmental health. Topics include food safety, extreme cold, hydrocarbons, lead poisoning, mold, and carbon monoxide. Under Featured Items see links for upcoming events and recently released reports on environmental health topics. From the Centers for Disease Control and Prevention.

Center for Drug Evaluation and Research

<http://www.fda.gov/cder>

—This site includes information about prescription and over-the-counter drugs, drug safety, and links to major drug information pages. From the U.S. Food and Drug Administration.

ClinicalTrials.gov

<http://clinicaltrials.gov>

—Developed by the National Institutes of Health through its National Library of Medicine to provide patients, family members, and members of the public current information about clinical research studies. It is updated regularly.

CNN Health

<http://www.cnn.com/HEALTH>

—Health links to Cable News Network news stories regarding health concerns.

Directory of Open Access Journals

<http://www.doaj.org>

—Provides access to free, full text, quality controlled scientific and scholarly journals. Journals may be browsed by title or subject, and many are searchable at article level.

Doctor's Guide

<http://www.docguide.com>

—A comprehensive source of links to medical information of interest to physicians, as well as information and resources a doctor may want to recommend to patients. Includes news stories, a list of webcasts and continuing medical education (CME) opportunities, Case Studies, and the Congress Resource Center, a database of meetings with links to relevant travel planning information.

U.S. Food and Drug Administration

<http://www.fda.gov>

—Provides links to FDA resources, including research information on food, drugs, biologics, cosmetics, medical devices, tobacco, and toxicology.

Health Disparities/CDC

<http://www.cdc.gov/omhd/Topic/HealthDisparities.html>

—Links to extensive information on health disparities organized on the home page by Topics, Quick Links, Key Resources, Programs and Campaigns, and more.

Health Disparities: A Selected Bibliography

<http://www.cdc.gov/nccdphp/publications/healthdisparities/>

—A compilation of peer-reviewed journal articles, book chapters, and monographs written by CDC staff and partners between January 2000 and January 2005, compiled for the 19th National Conference on Chronic Disease Prevention and Control, March 1–3, 2005.

Health Hotlines

<http://healthhotlines.nlm.nih.gov>

—A National Library of Medicine online database of health-related organizations operating toll-free telephone services.

Health Literacy Training [FREE]

<http://www.hrsa.gov/healthliteracy/training.htm>

—The U.S. Department of Health and Human Services, Health Resources and Services Administration, offers this free online training for health providers titled Unified Health Communication 101: Addressing Health Literacy, Cultural Competency, and Limited English Proficiency. The course has five modules, is estimated to take five hours to complete, and can be completed at your own pace. Credits can be elected for CEU/CE, CHES, CME, or CNE.

Healthfinder

<http://www.healthfinder.gov>

—A Web site of the U.S. government's links to dependable consumer health information.

Healthy People 2010

<http://healthypeople.gov>

—A health initiative for the nation coordinated by the Office of Disease Prevention and Health Promotion of the U.S. Department of Health and Human Services. The overarching goals of Healthy People 2010 are to increase quality and years of healthy life and to eliminate health disparities. It is designed to be used by people on many levels—personal, community, state, and national—to improve health.

Healthy People 2010 Information Access Project

<http://phpartners.org/hp>

—A Web resource developed by the National Library of Medicine with assistance from subject experts and public health librarians. The site provides “pre-formulated” PubMed searches for selected Healthy People 2010 focus areas to make current information and evidence-based strategies related to the HP2010 objectives easier to find. Also provides links to relevant full-text resources on NLM's Web site. This site is a pilot project funded by the National Library of Medicine with assistance from the Public Health Foundation and the National Network of Libraries of Medicine. Feedback is requested for project expansion to all HP2010 focus areas.

Healthy Schools Healthy Youth

<http://www.cdc.gov/healthyyouth/>

—The Centers for Disease Control and Prevention's Division of Adolescent and School Health Web site provides tools and resources to promote school health.

Medical Matrix

<http://www.medmatrix.org/reg/register.asp>

—A physician peer-reviewed list with useful topical and specialty categorizations. It contains good links to MEDLINE, CME, and online publications. Registration is required.

MedicineNet

<http://www.medicinenet.com>

—A network of physician educators dedicated to providing up-to-date, quality medical information for the public. Links from this site include subject areas such as “Hot News!,” “Diseases & Treatments,” “Pharmacy Drugs,” “Ask The Experts,” “Medical Dictionary,” and “First Aid Information.”

MedlinePlus

<http://medlineplus.gov>

—A consumer health Web site from the National Library of Medicine, providing health professionals and consumers a wealth of authoritative, up-to-date medical information on over 700 diseases and medical conditions. Resources include lists of hospitals and physicians, a medical encyclopedia, a medical dictionary, extensive information on prescription and non-prescription drugs, health

information from the media, and links to thousands of clinical trials. MedlinePlus is updated daily. Available in English and Spanish.

Medscape®

<http://www.medscape.com>

—Medscape, from WebMD®, offers medical specialists, primary care physicians, and other health professionals integrated medical information and education tools. Key features include “physician-optimized” MEDLINE, CME activities, conference coverage, daily professional medical news in your specialty, and the Internet’s first primary-source medical journal, Medscape General Medicine. A one-time, free registration allows Medscape to automatically deliver you to the specialty page (which you can change at any time) that best fits your profile.

My Family Health Portrait

<https://familyhistory.hhs.gov>

—A tool from the U.S. Surgeon General that allows users to create a family tree (drawing) and personalized family health history report from any computer with an Internet connection and an up-to-date browser. Focus is on six common diseases: heart disease, stroke, diabetes, colon cancer, breast cancer, and ovarian cancer. Other conditions that are of particular interest to the family can also be included. The drawing and the report can be printed and shared with family members and personal physicians. Also available in Spanish.

National Library of Medicine

<http://www.nlm.nih.gov>

—The National Library of Medicine (NLM), on the campus of the National Institutes of Health in Bethesda, Maryland, is the world’s largest medical library. The library collects materials and provides information and research services in all areas of biomedicine and health care.

National Library of Medicine Free Biomedical Literature Resources

<http://www.nlm.nih.gov/docline/freehealthlit.html>

—This National Library of Medicine Web site offers links to a number of free biomedical literature resources, including PubMed, NCBI Bookshelf, the Public Library of Science, BioMed Central, and the Directory of Open Access Journals.

National Medical Association

<http://www.nmanet.org>

—Focuses primarily on health issues related to African Americans and medically underserved populations. Links include Continuing Medical Education (CME), Journal of the National Medical Association (JNMA), and Health Policy.

National Women’s Health Information Center

<http://www.womenshealth.gov>

—This site offers information on more than 800 health topics specifically for women and staffs a call center. Includes information on special populations and information in Spanish. From the U.S. Department of Health and Human Services Office on Women’s Health.

NIH Health Information

<http://health.nih.gov>

—From the National Institutes of Health. Includes quick links to Child & Teen Health, Men's Health, Minority Health, Seniors' Health, Women's Health, and Wellness & Lifestyle.

NursingNet

<http://www.nursingnet.org>

—Provides a forum for medical professionals and students to obtain and disseminate information about nursing and medically related subjects.

Office of Minority Health, U.S. Department of Health and Human Services

<http://www.omhrc.gov>

—Serves as a national resource and referral service on minority health issues for health professionals, consumers, grantseekers, students, and the media. Online resources include publications, funding announcements, and links to federal/state/local government agencies, educational institutions, non-profit/national advocacy/private organizations, and minority group health sites.

Partners in Information Access for the Public Health Workforce

<http://phpartners.org>

—A collaboration of U.S. government agencies, public health organizations, and health science libraries. The site provides links to health resources in the areas of Health Promotion and Education, Literature and Guidelines, Health Data Tools and Statistics, Grants and Funding, Education and Training, Legislation, Conferences and Meetings, Finding People, Discussion and E-mail Lists, and Jobs and Careers.

Public Health Information and Data Tutorial

<http://phpartners.org/tutorial>

—This tutorial from Partners in Information Access for the Public Health Workforce provides instruction on issues related to information access and management. Clear connections are established to recognized competencies in public health, and examples are included which represent much of the diversity inherent in the practice of public health. Content contributors and authors represent city, county, state, and federal agencies.

National Clearinghouse for Alcohol and Drug Information

<http://ncadi.samhsa.gov>

—Current and comprehensive information about substance abuse prevention and addiction treatment from the Substance Abuse and Mental Health Services Administration (SAMHSA).

Public Library of Science

<http://www.plos.org/journals>

—Provides free online access to original published reports of ideas, discoveries, and research results in the life sciences and medicine. The journals are searchable online and also available in print.

PubMed

<http://pubmed.gov>

—One of the National Library of Medicine's free search services. It provides access to over 18 million citations in MEDLINE and about HIV/AIDS, with links to participating online journals.

Rural Assistance Center State Resources

<http://www.raonline.org/states>

—The Rural Assistance Center (RAC) is a health and human services information portal established by the U.S. Department of Health and Human Services' Rural Initiative. Its objective is to provide rural communities and stakeholders access to the full range of programs, funding, and research available to them to enable them to provide quality health and human services to rural residents.

Virtual Hospital®

<http://uihealthcare.com/vh>

—After 13 years of service, on January 1, 2006, Virtual Hospital and Virtual Children's Hospital® ceased operations due to a lack of funding. However, the patient information is now available on the University of Iowa's UI Health Care.com Web site. The information is prepared and reviewed by health professionals.

WebMD

<http://www.webmd.com>

—Provides a wide range of online health information for health care professionals and consumers. WebMD Health® includes consumer health information, health and wellness news, support communities, and interactive health management tools. Medscape® from WebMD provides clinical information and educational tools for health care professionals, including online continuing education, online coverage of medical conferences, access to over 100 medical journals, and daily medical news.

WholeHealthMD

<http://www.wholehealthmd.com>

—A complementary and alternative medicine Web site that is dedicated to providing the best in integrative health and wellness solutions. All material has been reviewed and developed by board-certified doctors. The Healing Center section of the site provides overviews on a wide range of conditions. Other sections include Healing Kitchen, Expert Opinions, Reference Library, News and Perspectives, and Supplements.

Selected Internet Resources in HIV/AIDS

AIDS.GOV

<http://aids.gov>

AIDS.ORG

<http://aids.org>

AIDS Action Committee of Massachusetts

<http://www.aac.org>

AIDS Education Global Information System (AEGIS)

<http://www.aegis.org>

AIDS History Project

<http://www.library.ucsf.edu/collections/archives/manuscripts/aids>

AIDS Images Library

<http://www.aids-images.ch>

AIDS Information and Controversy 1985–1995

<http://aidsinfobbs.org>

AIDS InfoNet

<http://www.aidsinfonyc.org>

AIDS Project Los Angeles

<http://www.apla.org>

AIDS Resource List

<http://www.specialweb.com/aids>

AIDS Treatment Data Network

<http://www.atdn.org>

AIDS Treatment News

<http://www.thebody.com/content/art31573.html>

AIDSinfo

<http://www.aidsinfo.nih.gov>

aidsinfonyc.org

<http://www.aidsinfonyc.org>

Aidsmap

<http://www.aidsmap.com>

All the Virology on the WWW

<http://www.virology.net/garryfavweb.html>

The Alternative Medicine HomePage

<http://www.pitt.edu/~cbw/altm.html>

American Foundation for AIDS Research (amfAR) Global Link

<http://www.amfar.org/globalink>

American Red Cross

<http://www.redcross.org>

Australian Federation of AIDS Organisations

<http://www.afao.org.au>

The Body

<http://www.thebody.com>

California AIDS Clearinghouse

[California AIDS Clearinghouse \(CAC\)](#)

Canadian AIDS Treatment Information Exchange

<http://www.catie.ca>

Canadian HIV Trials Network

<http://www.hivnet.ubc.ca/e/home/>

Center for AIDS Prevention Studies

<http://www.caps.ucsf.edu>

Centers for Disease Control and Prevention (CDC) HIV/AIDS

<http://www.cdc.gov/hiv>

Center for Mental Health Research on AIDS (CMHRA)

<http://www.nimh.nih.gov/about/organization/dahbr/center-for-mental-health-research-on-aids/>

Critical Path AIDS Project

<http://www.critpath.org>

GMHC on the Web Gay Men's Health Crisis

<http://www.gmhc.org>

Healthfinder.gov

<http://www.healthfinder.gov>

**Health Resources and Services Administration (HRSA) HIV/AIDS Program:
Caring for the Underserved**

<http://www.hab.hrsa.gov>

Health Services/Technology Assessment Text (HSTAT)

<http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat>

HIV Databases

<http://www.hiv.lanl.gov/>

HIV InSite

<http://hivinsite.ucsf.edu>

HIV/AIDS Prevention Web Sites for Communities of Color

<http://orise.orau.gov/healthcomm/hiv-aids-prevention.htm>

HIV/AIDS Surveillance (U.S. Census Bureau)

<http://www.census.gov/ipc/www/hivaidsn.html>

HIV/AIDS Vaccines

<http://www3.niaid.nih.gov/topics/HIV/AIDS/research/vaccines/>

HIVandHepatitis.com

<http://hivandhepatitis.com>

HIVdent (dental information)

<http://www.hivdent.org>

HIVpositive.com

<http://www.hivpositive.com>

How to Find Reliable HIV/AIDS Treatment Information on the Internet

<http://orise.orau.gov/healthcomm/hiv-aids-treatment.htm>

International AIDS Society

<http://www.iasociety.org>

International Association of Physicians in AIDS Care

<http://www.iapac.org>

Johns Hopkins HIV Guide

<http://www.hopkins-aids.edu>

Joint United Nations Programme on HIV/AIDS

<http://www.unaids.org>

MedlinePlus AIDS

<http://medlineplus.gov/aids>

Medscape HIV/AIDS

<http://www.medscape.com/hiv>

National AIDS Treatment Advocacy Project (NATAP)

<http://www.natap.org>

National Clearinghouse for Alcohol and Drug Information

<http://ncadi.samhsa.gov>

National HIV/AIDS Clinicians' Consultation Center (NCCC)

<http://www.nccc.ucsf.edu>

National Institute of Allergy and Infectious Diseases (NIAID)

<http://www3.niaid.nih.gov/>

National Institutes of Health (NIH) Office of AIDS Research (OAR)

<http://www.oar.nih.gov>

National Library of Medicine HIV/AIDS Portal

<http://sis.nlm.nih.gov/hiv.html>

National Minority AIDS Council

<http://www.nmac.org>

National Prevention Information Network

<http://www.cdcnpi.org>

New York Academy of Medicine, HIV/AIDS Information Outreach Program

<http://www.aidsnyc.org>

NIAID Division of Acquired Immunodeficiency Syndrome

<http://www3.niaid.nih.gov/about/organization/daids/>

Partners in Information Access for the Public Health Workforce—HIV

<http://phpartners.org/hp/hiv.html>

Positive.org

<http://www.positive.org/Home>

Project Inform

<http://www.projinf.org>

PubMed

<http://pubmed.gov>

PubMed Training Manual (NLM)

http://www.nlm.nih.gov/pubs/web_based.html

PubMed Tutorial (NLM)

<http://www.nlm.nih.gov/bsd/disted/pubmedtutorial/>

Rural Center for AIDS/STD Prevention

<http://www.indiana.edu/~aids>

San Francisco AIDS Foundation

<http://www.sfaf.org>

Social Security Administration

<http://www.ssa.gov>

The TB/HIV Research Laboratory at Brown University

<http://research.brown.edu/research/labs.php>

U.S. Department of Health and Human Services

<http://www.os.dhhs.gov>

U.S. Food and Drug Administration, HIV and AIDS

<http://www.fda.gov/oashi/aids/hiv.html>

World Health Organization, Tuberculosis

<http://www.who.int/tb/en/>

Yahoo AIDS/HIV Resources

http://dir.yahoo.com/health/diseases_and_conditions/aids_hiv

Selected Resources in Environmental Health and Toxicology

Biostatistics and Epidemiology

Bureau of Labor Statistics (BLS)	http://stats.bls.gov
CDC Wonder	http://wonder.cdc.gov
Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov
Comprehensive Epidemiologic Data Resource (CEDR)	http://cedr.lbl.gov
<i>Morbidity and Mortality Weekly Report</i> (MMWR)	http://www.cdc.gov/mmwr/mmwr.html
National Center for Health Statistics (NCHS)	http://www.cdc.gov/nchs
World Health Organization (WHO)	http://www.who.int

Bioterrorism and Disaster Medicine

Institute for Biosecurity	http://bioterrorism.slu.edu
Hospital Preparedness for Mass Casualties	http://www.hospitalconnect.com/ahapolicyforum/resources/disaster.html
Radiation Event Medical Management (REMM)	http://remm.nlm.gov

Consumer Information

American Lung Association (ALA)	http://www.lungusa.org
Environmental Health Clearinghouse	http://infoventures.com
Federal Citizen Information Center (FCIC)	http://www.pueblo.gsa.gov
U.S. Consumer Product Safety Commission (CPSC)	http://www.cpsc.gov

Environmental Health

American Lung Association (ALA)	http://www.lungusa.org
American Public Health Association (APHA)	http://www.apha.org
American Public Works Association (APWA)	http://www.apwa.net
Comprehensive Epidemiologic Data Resource (CEDR)	http://cedr.lbl.gov
CRISP (Computer Retrieval of Information on Scientific Projects)	http://crisp.cit.nih.gov
Duke Occupational & Environmental Medicine	http://dukeocmed.mc.duke.edu
Enviro-Net (Southeast U.S.)	http://www.enviro-net.com
Environmental Fate Databases & more (from Syracuse Research Corporation)	http://www.syrres.com/Esc/efdb.htm
Environmental Health Clearinghouse	http://infoventures.com

Environmental Protection Agency (EPA)	http://www.epa.gov
Environmental Protection Magazine Online	http://www.eponline.com
Free Full Text Health Science/Medical Journals (from the National Library of Medicine)	http://sis.nlm.nih.gov/pdf/FreeFullTextListApril07.pdf
International Agency for Research on Cancer (IARC)	http://www.iarc.fr
National Center for Environmental Health (NCEH)	http://www.cdc.gov/nceh
National Environmental Data Index (NEDI)	http://www.nedi.gov
National Institute of Environmental Health Sciences (NIEHS)	http://www.niehs.nih.gov
Office of Environmental Management (EM)	http://www.em.doe.gov
Organisation for Economic Co-operation and Development's (OECD's) Work on Environment, Health and Safety	http://www.oecd.org/ehs
Specialized Information Services (SIS), National Library of Medicine (NLM)	http://sis.nlm.nih.gov
United Nations Environment Programme (UNEP)	http://www.unep.org
Water Resources of the United States	http://water.usgs.gov
World Health Organization (WHO)	http://www.who.int

General Information

FedWorld (Federal government information locator from the National Technical Information Service [NTIS])	http://www.fedworld.gov
The National Academies	http://www.nas.edu
National Agricultural Library (NAL)	http://www.nalusda.gov
National Institutes of Health (NIH)	http://www.nih.gov
National Library of Medicine (NLM)	http://www.nlm.nih.gov
U.S. Department of Energy (DOE)	http://www.energy.gov
U.S. Department of Health & Human Services (DHHS)	http://www.dhhs.gov
U.S. Department of Labor (DOL)	http://www.dol.gov
U.S. Department of Transportation (DOT)	http://www.dot.gov
World Health Organization (WHO)	http://www.who.int

Genetic Information

Genetics Home Reference	http://ghr.nlm.nih.gov
Human Genome Resources	http://www.ncbi.nlm.nih.gov/projects/genome/guide/human/
National Human Genome Research Institute	http://www.genome.gov/11510197
Office of Rare Diseases (NIH)	http://rarediseases.info.nih.gov

Occupational Health and Safety

American Industrial Hygiene Association (AIHA).....	http://www.aiha.org
Bureau of Labor Statistics (BLS)	http://stats.bls.gov
Canadian Centre for Occupational Health and Safety (CCOHS)	http://www.ccohs.ca
Duke Occupational & Environmental Medicine.....	http://dukeoccmec.mc.duke.edu
Finnish Institute of Occupational Health (FIOH)	http://www.ttl.fi/Internet/English/default.htm
Health and Safety Executive (HSE)	http://www.hse.gov.uk
Injury Control Resource Information Network (ICRIN)	http://www.injurycontrol.com/icrin
International Occupational Safety and Health Information Centre (CIS)	http://www.ilo.org/public/english/protection/safework/cis/
International Programme for Chemical Safety (IPCS) INCHEM	http://www.inchem.org
Laboratory Chemical Safety Summaries (LCSS).....	http://www.hhmi.org
Mine Safety and Health Administration (MSHA)	http://www.msha.gov
National Agricultural Library (NAL)	http://www.nalusda.gov
National Institute for Occupational Safety and Health (NIOSH)	http://www.cdc.gov/niosh
Occupational Safety and Health Administration (OSHA)	http://www.osha.gov
OshWeb (Occupational Safety & Health)	http://www.oshweb.com
Vermont Safety Information Resources, Inc. (SIRI).....	http://hazard.com
Where to find Material Safety Data Sheets on the Internet.....	http://www.ilpi.com/msds

Research

International Agency for Research on Cancer (IARC)	http://www.iarc.fr
Laboratory Chemical Safety Summaries (LCSS).....	http://www.hhmi.org
National Center for Toxicological Research (NCTR)	http://www.fda.gov/AboutFDA/CentersOffices/nctr/default.htm
National Institute of Environmental Health Sciences (NIEHS)	http://www.niehs.nih.gov
National Institutes of Health (NIH)	http://www.nih.gov
National Institutes of Health (NIH) RePORTER.....	http://projectreporter.nih.gov
National Toxicology Program (NTP).....	http://ntp-server.niehs.nih.gov
Office of Human Radiation Experiments	http://www.hss.energy.gov/healthsafety/ohre/
Human Subjects Protection Program (Department of Energy)	http://humansubjects.energy.gov/

Standards

- International Organization for Standardization (ISO) <http://www.iso.ch>
 National Standards System Network (NSSN) <http://www.nssn.org>

Toxicology

- Agency for Toxic Substances and Disease Registry (ATSDR) <http://www.atsdr.cdc.gov>
 Canadian Poisonous Plants Information System <http://www.cbif.gc.ca/pls/pp/poison>
 Carcinogenic Potency Project (CPDB) <http://potency.berkeley.edu/cpdb.html>
 Center for Food Safety and Applied Nutrition (CFSAN) <http://www.cfsan.fda.gov>
 Chemfinder <http://chembiofinder.cambridgesoft.com>
 Comprehensive Epidemiologic Data Resource (CEDR) <http://cedr.lbl.gov>
 Food and Drug Administration (FDA) <http://www.fda.gov>
 Human Subjects Protection Program (Department of Energy)..... <http://humansubjects.energy.gov/>
 Injury Control Resource Information Network (ICRIN) <http://www.injurycontrol.com/icrin>
 International Agency for Research on Cancer (IARC) <http://www.iarc.fr>
 Laboratory Chemical Safety Summaries (LCSS)..... <http://www.hhmi.org>
 National Center for Toxicological
 Research (NCTR) <http://www.fda.gov/AboutFDA/CentersOffices/nctr/default.htm>
 National Institutes of Health (NIH) RePORTER <http://projectreporter.nih.gov>
 National Toxicology Program (NTP) <http://ntp-server.niehs.nih.gov>
 Office of Human Radiation Experiments..... <http://www.hss.energy.gov/healthsafety/ohre/>
 Organisation for Economic Co-operation and Development's (OECD's)
 Work on Environment, Health and Safety <http://www.oecd.org/ehs>
 Pesticide Action Network Pesticide Database (PAN)..... <http://www.pesticideinfo.org>
 Specialized Information Services (SIS), National Library of Medicine (NLM) <http://sis.nlm.nih.gov>
 United Nations Environment Programme (UNEP) <http://www.unep.org>
 U.S. Department of Transportation (DOT) <http://www.dot.gov>
 Vermont Safety Information Resources, Inc. (SIRI) <http://hazard.com>

Selected World Wide Web Search Tools

Major Search Directories and Search Engines

- ‘ AllTheWeb.com <http://www.alltheweb.com>
- ‘ AltaVista.com <http://altavista.com>
- ‘ Ask.com <http://ask.com>
- ‘ Bing.com <http://www.bing.com>
- ‘ Google <http://www.google.com>
- ‘ HotBot <http://www.hotbot.com>
- ‘ Yahoo! <http://www.yahoo.com>

Meta Search Engines

- ‘ Dogpile <http://www.dogpile.com>
- ‘ InfoGrid <http://www.infogrid.com>
- ‘ Ixquick <http://www.ixquick.com>
- ‘ Mamma <http://www.mamma.com>
- ‘ SurfWax <http://www.surf wax.com>
- ‘ Vivisimo <http://vivisimo.com>

Miscellaneous

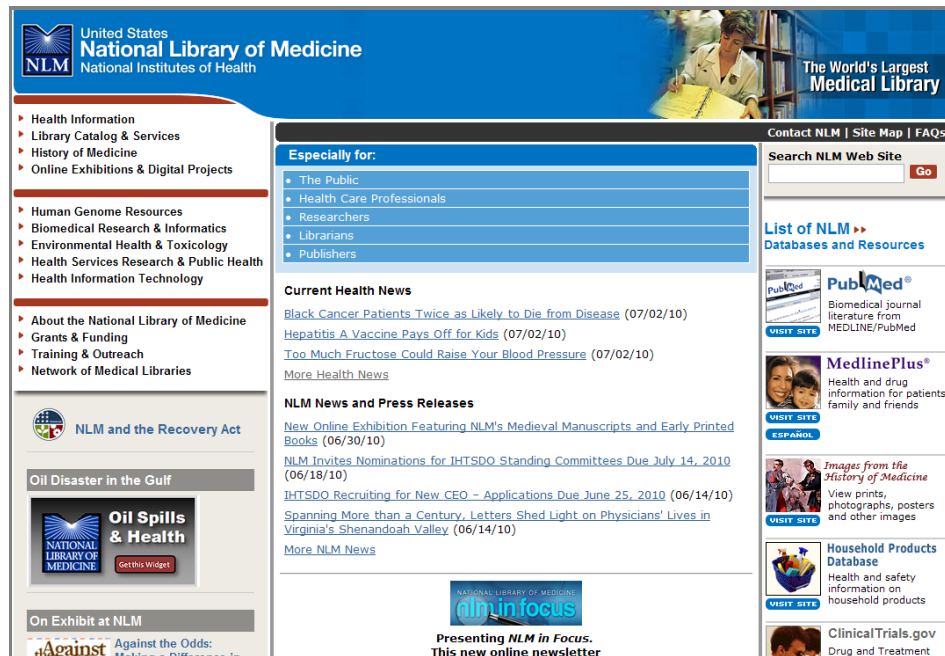
- ‘ Search Engine Watch—Information for Web Designers <http://www.searchenginewatch.com>
- ‘ CataList—Reference Site for LISTSERV® lists
<http://www.lsoft.com/lists/listref.html>

Finding Quality Health Information on the Internet



Finding Quality Health Information on the Internet

The World Wide Web contains an abundance of free health information, available 24 hours per day. Finding health information online is easy, but how do we know that the information we find is reliable and trustworthy?



Evaluating Internet Resources

The **National Library of Medicine (NLM)** is a good place to start to find trustworthy, up-to-date health information. Beyond that, there are some important questions you can ask yourself to determine if a site is trustworthy. Briefly, the categories you should consider are the following:

- ▶ **Authority and Accuracy**
- ▶ **Coverage**
- ▶ **Currentness**
- ▶ **Objectivity**
- ▶ **Design Features**

“Savvy Health Surfing,” developed by the National Library of Medicine, contains a complete list of the questions that should be asked in each category. You will find this pull-out reference sheet in the back of this workbook.

Additional Resources

For further information, we recommend these additional resources:

- ▶ HON Code of Conduct for Medical and Health Web Sites
<http://www.hon.ch/HONcode>
- ▶ Evaluating Internet Health Information: A Tutorial from the National Library of Medicine
<http://www.nlm.nih.gov/medlineplus/webeval/webeval.html>
- ▶ MedlinePlus—Evaluating Health Information
<http://www.nlm.nih.gov/medlineplus/evaluatinghealthinformation.html>
- ▶ National Network of Libraries of Medicine—Is this health information good for me?
<http://nnlm.gov/pnr/hip/criteria.html>
(en Español: <http://nnlm.gov/pnr/hip/informacion.html>)
- ▶ Quackwatch
<http://www.quackwatch.com>
- ▶ National Cancer Institute – Evaluating Health Information on the Internet
<http://www.cancer.gov/cancertopics/factsheet/Information/internet>

Savvy Health Surfing Exercises

Review the following Web sites and determine if each is reliable according to the Savvy Health Surfing criteria discussed in class.

	Authority/ Accuracy	Coverage	Currentness	Objectivity	Design
1: http://www.thinktwice.com					
2: http://www.hivpositive.com					
3: http://www.healthfree.com					
4: http://www.malepregnancy.com					
5: http://www.drkoop.com					
6: http://www.drugs.com					
7: http://www.thebody.com					
8: http://nisa-sids.org					
9: http://www.uoa.org					
10: http://www.webmd.com					
11: http://www.drclark.net					
12: http://www.aaem.com					
13: http://www.medicalacupuncture.org					
14: http://www.amaasportsmed.org					
15: http://www.bonetumor.org					
16: http://www.biausa.org					
17: http://www.connectforkids.org					

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Savvy Health Surfing



Questions to Ask About Health-related Web Sites

Authority and Accuracy

- ▶ Who is the author or source?
- ▶ Can you verify their credentials?
- ▶ Do they represent a recognized organization or is it a personal page?
- ▶ Is affiliation information provided?
- ▶ Does the Web site have an advisory board?
- ▶ Can the information be verified through links to the sources?
- ▶ If the site offers advice, do qualified health professionals provide it?
- ▶ Is contact information provided?

Coverage

- ▶ Who is the intended audience for this site?
- ▶ What is the purpose of the site?
- ▶ Does the site promote or advocate a viewpoint?
- ▶ Is the depth of coverage on the site reasonable?
- ▶ Is the information primary or secondary?
- ▶ If appropriate, are there links to additional information?

Currentness

- ▶ When was the site created?
- ▶ When was the site last updated?
- ▶ When was the data or information collected?
- ▶ Are the links kept up to date?

Objectivity

- ▶ Is the purpose of the site clearly stated?
- ▶ Is the information presented objectively?
- ▶ Is any sponsorship clearly acknowledged?

Design Features

- ▶ Is the site well-organized and user-friendly?
- ▶ Is the site easy to navigate?
- ▶ Is the graphic layout of the site pleasing? Is it clear and uncluttered?
- ▶ Are there any features that increase or decrease usability? Do you need additional viewers or plug-ins?
- ▶ Is there an internal search engine on the site?
- ▶ Are there customizable options?
- ▶ Can you ask questions or provide feedback?
- ▶ Is the site accessible to individuals with disabilities?

Contacting the National Library of Medicine for Database Assistance

Toll-free: 888-FIND-NLM (346-3656)

E-mail: custserv@nlm.nih.gov

TOXNET E-mail: tehip@teh.nlm.nih.gov

Online Resources

Online Training Manuals	http://www.nlm.nih.gov/pubs/web_based.html (ClinicalTrials.gov, NLM Gateway, PubMed, TOXNET)
Tutorials	http://www.nlm.nih.gov/bsd/disted/pubmedtutorial/ (PubMed)
Fact Sheets	http://www.nlm.nih.gov/pubs/factsheets/factsheets.html
Frequently Asked Questions	http://www.nlm.nih.gov/services/faq.html
See also Help and FAQ links on each database home page.	

The National Network of Libraries of Medicine

Toll-free number for all Regional Medical Libraries: 800-338-7657
Monday-Friday 8:30 a.m.–5:00 p.m. in all time zones

Web site: <http://nnlm.gov>

Instructors

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