

National Medical Association

August 2, 2010
Orlando, Florida

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 Medical Association

Presented at the
2010 Convention and Scientific Assembly
Orlando, Florida
August 2, 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 *National Library of Medicine: Evidence-Based Information at Your Fingertips* workshop is designed specifically for physicians attending the Community Medicine and Public Health Section portion of the National Medical Association 2010 Annual Convention and Scientific Assembly. This course seeks to address the digital divide issue by teaching participants to use the NLM resources and to improve their ability to use health information technology to treat their patients and develop strategies to eliminate race-based disparities in health.

Participants will receive hands-on practice with selected online resources from the National Library of Medicine to address these issues, allowing them to increase their knowledge as well as to provide their patients with user-friendly information resources to increase understanding of their own health problems.

Medical databases covered in the course include MEDLINE®/PubMed®, and MedlinePlus®.

MEDLINE/PubMed is a medical literature database containing more than 19 million references to journal articles published in 5,400 journals in the fields of medicine and the life sciences.

MedlinePlus is an online consumer health information resource that includes links to authoritative information on more than 800 health topics; information on drugs and supplements; a medical encyclopedia; a medical dictionary; more than 165 interactive health tutorials; directories of libraries, hospitals, and health care professionals; links to current health news; and links to health information in more than 40 languages other than English. Additional medical resources covered in this workshop and referred to as the Drug Suite include: the Dietary Supplements Labels Database, the Drug Information Portal, and the Pillbox [Beta] Database.

The prevalence of toxins and other hazardous substances in today's environment makes it ever more important for health professionals to be able to recognize the impact of chemical exposures on community health. NLMs TOXNET® (Toxicology Data Network) databases provide the means to research and find solutions to these problems. TOXNET's factual and bibliographic databases provide quality, up-to-date, and relevant information on hazardous substances in the environment. The TOXNET database covered in this workshop is the Hazardous Substances Data Bank (**HSDB®**), which contains comprehensive, peer-reviewed toxicological data for more than 5,000 chemicals. Additional environmental health resources referred to as Disaster Information & Preparedness Suite include Radiation Emergency Medical Management (REMM), Tox Town®, and the Wireless Information System for Emergency Responders (WISER®).

For more information on NLMs TOXNET resources, visit <http://toxnet.nlm.nih.gov>.

This workbook is designed to be used as a reference following the workshop. 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)*final page*

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

Developed for the National Medical Association 2010 Convention & Scientific Assembly

Gaylord Palms Hotel and Convention Center – Orlando, Florida
August 2, 2010

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Agenda

Welcome and Orientation

Introduction to NLM's Online Resources

MEDLINE/PubMed  *(with hands-on practice)*

Information RX

MedlinePlus  *(with hands-on practice)*

Introduction to NLM's Environmental Health and Toxicology Information Resources

HSDB  *(with hands-on practice)*

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/Evaluations

Class ends

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Introduction



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

Introduction



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

A workshop developed for the
National Medical Association
Annual Convention & Scientific Assembly

Orlando, Florida
August 2, 2010

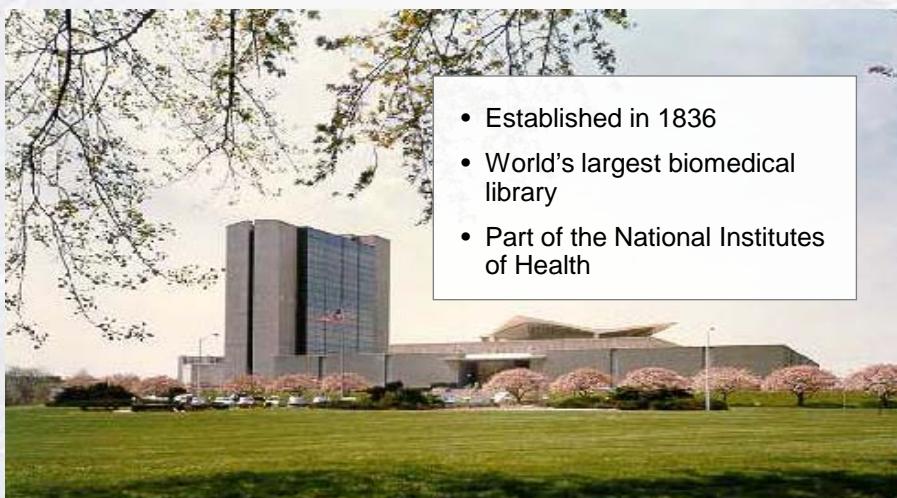
Purpose

- Familiarize physicians affiliated with the National Medical Association (NMA) with the National Library of Medicine's (NLM) online medical information resources and other resources that address health disparities and related medical conditions.
- Skills and knowledge acquired in this training class will empower NMA physicians to
 - remain current in their area of specialty,
 - conduct medical research, and
 - prepare to provide consumer level information to their patients.

Objectives

- Identify and evaluate quality, accurate, and authoritative online resources pertaining to health disparities and related information.
- Demonstrate the ability to perform strategic search techniques in order to find health disparities and related information.
- Apply the skills and knowledge obtained in this course in their medical practice and research.

The National Library of Medicine



- Established in 1836
- 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

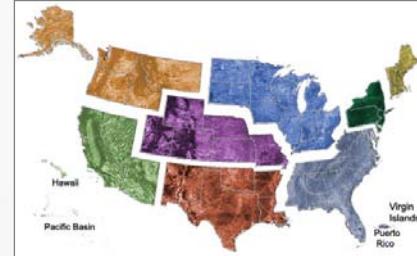


NLM Database Assistance

- 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



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

MEDLINE/PubMed



A screenshot of a PubMed search results page. The title "PubMed" is at the top. Below it is a list of search results, each consisting of a small thumbnail image, the title of the article, the name of the journal, the date of publication, and a brief abstract. The results are paginated with "1-20 of 1,000,000 results" and "Next 20 results" buttons.

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

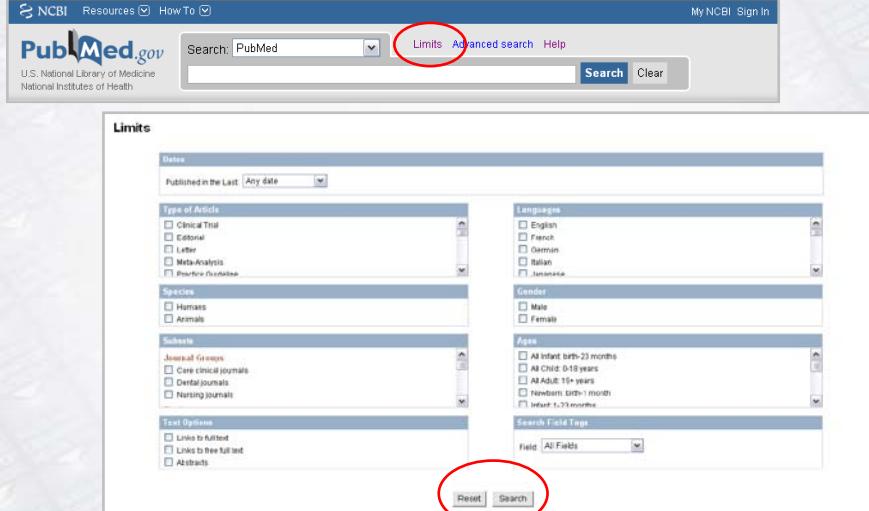
PubMed Searching

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

Example

<u>Search Term</u>	<u>Retrieves</u>
infect*	infect
	infection
	infections
	infectious
	etc.

Limits



Note the Reset and Search button

Advanced Search

Advanced Search

Search Builder

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 > PubMed

Write to the Help Desk

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

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
 - Collections
 - Order
 - Clipboard
 - E-mail

Search Results

NCBI Resources How To

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

Search PubMed RSS Save search Limits Advanced search Help

Search: influenza h1n1

Send to: Filter your results: All (5605) Review (223) Free Full Text (1594) Manage Filters

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

Results: 21 to 40 of 5605

Send to: Filter your results: All (5605) Review (223) Free Full Text (1594) Manage Filters

21 Memon MA, Garrison G, Mashima TY, Chaddock M. **Author(s)** **Free Full Text** → [J Vet Med Educ. 2010 Summer;37\(2\):207-8. PMID: 2056911 \[PubMed - in process\]](#)

22 Adamson WF, Madhi S, Robertson C, McDonagh S, Molynaux PJ, Templeton KE, Carman WF. **Publication Date** [Euro Surveill. 2010 Jun 17;15\(24\): pii: 19590. PMID: 20576237 \[PubMed - in process\]](#)

23 Paine S, Mercer GN, Kelly PM, Bandaranayake D, Baker MG, Huang QS, Mackereth G, Bissel A, Glass K, Hope V. [Euro Surveill. 2010 Jun 17;15\(24\): pii: 19591. PMID: 20576236 \[PubMed - in process\]](#)

24 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. [Effect of Clinical and Virological Parameters on the Level of Neutralizing Antibody against Pandemic Influenza A Virus H1N1 2009.](#)

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

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

Search PubMed RSS Save search Limits Advanced search Help

Search: influenza h1n1 children

Send to: Filter your results: All (5605) Review (223) Free Full Text (1594) Manage Filters

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

Results: 21 to 40 of 931

Choose Destination

Send to: **pull down menu areas**

File Clipboard

Collections E-mail

Order

21 High Sensitivity of a Rapid Immunochromatographic Test for the Detection of Influenza A Viral RNA in Nasopharyngeal Aspirates from Young Children. Andresen DN, Kesson AM. [J Clin Microbiol. 2010 May 26. \[Epub ahead of print\]](#)

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. \[Epub ahead of print\]](#)

23 Severe A/H1N1 influenza in four pregnant women in Podkarpackie Province of Poland. Skret-Magierko J, Florek A, Skret A, Piechota Z, Botiuk K, Pajak M, Kokot P. [Ginekol Pol. 2010 Mar;81\(3\):227-31.](#)

24 Guillain-Barre Syndrome Following H1N1 Immunization in a Pediatric Patient (July/August). Tremblay ME, Closon A, D'Anjou G, Blussières JF. [Ann Pharmacother. 2010 May 18. \[Epub ahead of print\]](#)

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

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)

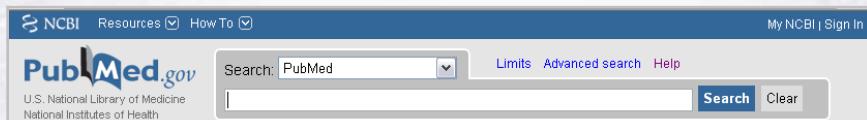
Save Search Results

- 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



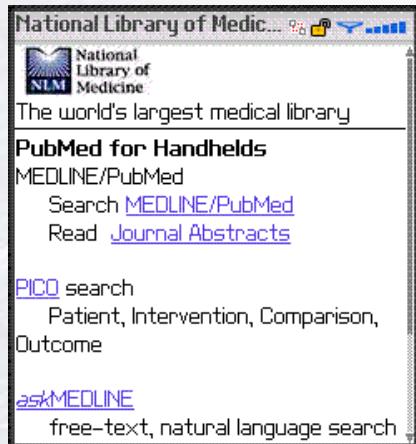
<http://pubmed.gov>

Or...

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



PubMed for Handhelds Web site



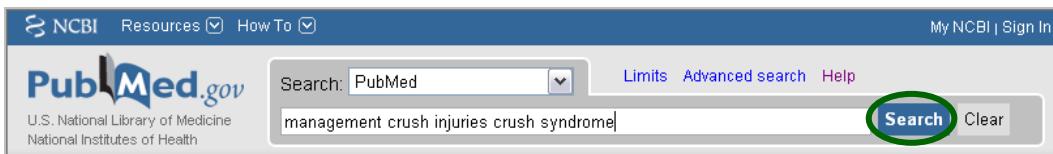
- A website for searching MEDLINE® with the web browser of any mobile device.



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:



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

Results: 1 to 20 of 140

1. Lointe C, Sorodoc L, Petriş 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]

2. 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]

3. Burns K, Cone DC, Portereiko JV. Prehosp Emerg Care. 2010 Apr;14(2):240-4. PMID: 20095831 [PubMed - indexed for MEDLINE]

4. Li W, Qian J, Liu X, Zhang Q, Wang L, Chen D, Lin Z. Management of severe crush injury in a front-line tent ICU after 2008 Wenchuan earthquake in China: an experience with 32 cases. Crit Care. 2009;13(6):R114. doi: 10.1186/cc7944

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



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	Free Full Text 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	Free Full Text 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:	Value added:
<ul style="list-style-type: none"> Links to publishers Selected full text articles Selected consumer health journals Links to MedlinePlus 	<ul style="list-style-type: none"> Drug information Medical encyclopedia Links to other Web resources Link to MEDLINE searches Spanish version Surgery videos

3

MedlinePlus & Information Rx



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

MedlinePlus



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MEDICAL DICTIONARY

POPULAR SEARCHES

About Your Health

General Seniors Men Women Children

Back Pain COPD (Chronic Obstructive Pulmonary Disease) Depression ...

15 JUL Health News

Administration Announces Regulations Requiring New Health Insurance Plans to Provide Free Preventive Care

Mood Disorders Going Undetected in U.S. Children

<http://medlineplus.gov>

MedlinePlus

- User-friendly source
- Health information for patients and the public
- Comprehensive, reliable, non-commercial and free
- Credible sources
- Easy-to-read language
- Links to PubMed searches
- Spanish version

MedlinePlus

- Over 800 topics on health conditions, diseases, and wellness
 - Including Videos & Cool Tools
- Drug and herbal supplement information
- Current health news
- Illustrated medical encyclopedia
- Medical dictionary with over 60,000 definitions
 - audio pronunciation

MedlinePlus

- Directories of physicians and health care facilities
- Organizations
- Multiple Languages
- Mobile Application
- MedlinePlus Magazine
- Medical Words
 - <http://www.nlm.nih.gov/medlineplus/medicalwords.html>

Health Topics

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Health Topics Drugs & Supplements Videos & Cool Tools ESPAÑOL

Find your topic by first letter: A B C D E F G H I J K L M N O P Q R S T U V W XYZ List of All Topics

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

- Cancers
- 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

Diagnosis 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
- Social/Family Issues
- Wellness and Lifestyle

MedlinePlus - Clinical Trials

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Health Topics Drugs & Supplements Videos & Cool Tools ESPAÑOL

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

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.

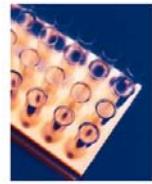
In the United States, an independent committee of physicians, statisticians and members of the community must approve and monitor the protocol. They make sure that the risks are small and are worth the potential benefits.

NIH National Institutes of Health

Get Clinical Trials updates by email GO What's new?

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

MedlinePlus - Clinical Trials

Basics

- [Overviews](#)
- [Research](#)

Learn More

- [Specific Conditions](#)
- [Dictionaries/Glossaries](#)
- [Reference Shelf](#)
- [For You](#)

Multimedia & Cool Tools

- [Tutorials](#)
- [Videos](#)

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

- [Clinical Trials](#) (Patient Education Institute)
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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Organizations

- [National Institutes of Health](#) [NIH](#)

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Law and Policy

- [Clinical Trials and Incentives: Conference](#) [NIH](#) (National Cancer Institute)

MedlinePlus - Clinical Trials

Organizations

- [National Institutes of Health NIH](#)

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Law and Policy

- [Clinical Trials and Insurance Coverage NIH](#) (National Cancer Institute)
- [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 Consent to Clinical Trial Participation NIH](#) (National Cancer Institute)
- [Should Your Child Be in a Clinical Trial?](#) (Food and Drug Administration)

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Seniors

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

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Videos & Cool Tools

Learn by watching health videos on topics such as human anatomy, surgical procedures and health news. Test your knowledge with the interactive tutorials and games. Check your health by using the calculators and quizzes.

Weight-Related Threat



HealthDay

00:01 / 01:04

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GO

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 [Anatomy Videos](#)

 [Surgery Videos](#)

Calculators & Quizzes

[Alcohol Calorie Calculator](#)

[Build Your Question List](#)

[Calculate Your Body Mass Index](#)

[Colonctal Cancer Risk Assessment Tool](#)

[Diabetes PHQ \(Personal Health Decisions\)](#)

[Interactive Menu Planner](#)

[My Fata Translator](#)

[Risk Assessment Tool for Estimating Your 10-Year Risk of Having a Heart Attack](#)

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MedlinePlus & Information Rx | 37

MedlinePlus – Interactive Health Tutorial

Interactive Health Tutorials

MedlinePlus presents interactive health tutorials from the [Patient Education Institute](#). Learn about the symptoms, diagnosis and treatment for a variety of diseases and conditions. Also learn about surgeries, prevention and wellness. Each tutorial includes animated graphics, audio and easy-to-read language.

Diseases and Conditions	Tests and Diagnostic Procedures
Abdominal Aortic Aneurysm	Ammicentesis
Acne	Barium Enema
Allergies to Dust Mites	Bone Densitometry
Alzheimer's	Breast Lumps - Biopsy
Amyotrophic Lateral Sclerosis (ALS)	Bronchoscopy
Angina	Carcinectomy
Anthrax	Carcoscopy
Arrhythmias	Coronary Angiography and Possible Angioplasty
Arthritis	CT Scan (CAT Scan)
Asthma	Cystoscopy - Men
Atrial Fibrillation	Cystoscopy - Women
Avian Influenza (Bird Flu)	Echocardiogram
Back Pain - How to Prevent	Echocardiography Stress Test
Bell's Palsy	IVP (Intra Venous Pyelogram)
Brain Cancer	Knee Arthroscopy
Breast Cancer	Laparoscopy - Diagnostic
Burns	Mammogram
Cataracts	MRI
Cerebral Palsy	Myelogram
Cold Sores (Herpes)	Newborn Screening
Colon Cancer	Pap Smear
Congestive Heart Failure	Shoulder Arthroscopy
COPD (Chronic Obstructive Pulmonary Disease)	Ultrasound
Crohn's Disease	Upper GI Endoscopy



Drugs, Supplements, and Herbal Information

Drugs

Learn about your prescription drugs and over-the-counter medicines. Includes side effects, dosage, special precautions, and more.

Browse by generic or brand name

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z 0 9

For FDA approved labels included in drug packages, see [DailyMed](#).

Herbs and Supplements

Browse dietary supplements and herbal remedies to learn about their effectiveness, usual dosage, and drug interactions.

[All herbs and supplements](#)

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Related Topics

- [AIDS Medicines](#)
- [Antibiotics](#)
- [Anticoagulants](#)
- [Blood Pressure Medicines](#)
- [Blood Thinners](#)
- [Cancer Alternative Therapies](#)
- [Cancer Chemotherapy](#)
- [Cold and Cough Medicines](#)
- [Complementary and Alternative Medicine](#)
- [Diabetes Medicines](#)
- [Dietary Supplements](#)
- [Drug Safety](#)
- [Herbal Medicine](#)
- [Hormone Replacement Therapy](#)
- [Medicines](#)
- [Over-the-Counter Medicines](#)
- [Pain Relievers](#)
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- [Steroids](#)
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Medical Encyclopedia

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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: [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#) [0](#)

#A.D.A.M.

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Page last updated on 09 July 2010

Medical Dictionary

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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 

 Rhino = nose

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

You may also be interested in these specific pages:
[Word Parts and What They Mean](#)
[Some Common Abbreviations](#)

News

Home Page



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- anemia anxiety asthma
- diabetes gout hypertension
- lupus lyme disease osteoporosis prednisone shingles strokes

More Health News



15 Health News

Administration Announces Regulations Requiring New Health Insurance Plans to Provide Free Preventive Care

More Disorders Going Undetected in U.S. Children

New Pill Found to Cut Weight with Few Side Effects

more health news

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

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Wednesday, July 14

Administration Announces Regulations Requiring New Health Insurance Plans to Provide Free Preventive Care (Dept. of Health and Human Services)

Alzheimer's Caregivers Often Mix Up to 80% Ethnicity (HealthDay)

White, black and Hispanic report different reactions to death of loved one, study finds

Related MedlinePlus Topics: Alzheimer's Caregivers, Retirement

Alzheimer's May Increase Seizure Risk (HealthDay)

Risk found to be higher in younger patients and decreased with age, study found

Related MedlinePlus Topics: Alzheimer's Disease, Seizures

Another HTN Benefit? (HealthDay)

Related MedlinePlus Topics: Cancer, Cholesterol

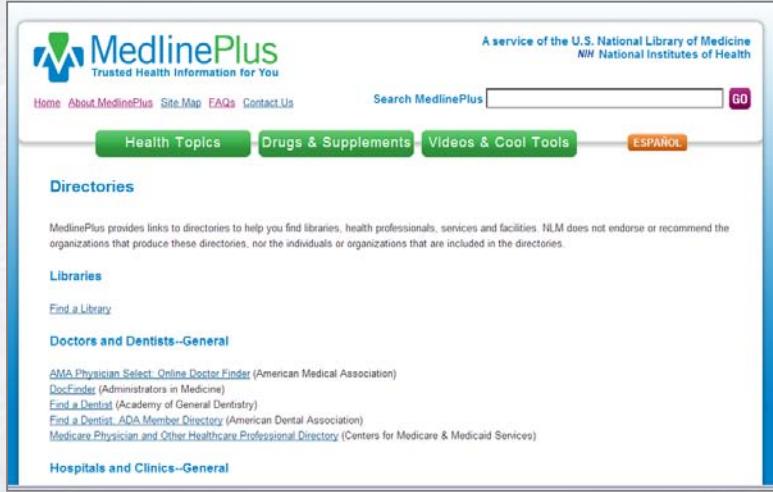
Association Found Between Alzheimer's and Anemia (HealthDay)

Cause for concern: more study needed, researchers say

Related MedlinePlus Topics: Alzheimer's Disease, Anemia

HealthDay

Directories



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

[Find a Library](#)

Doctors and Dentists--General

[AMA Physician Select: Online Doctor Finder](#) (American Medical Association)

[DocFinder](#) (Administrators in Medicine)

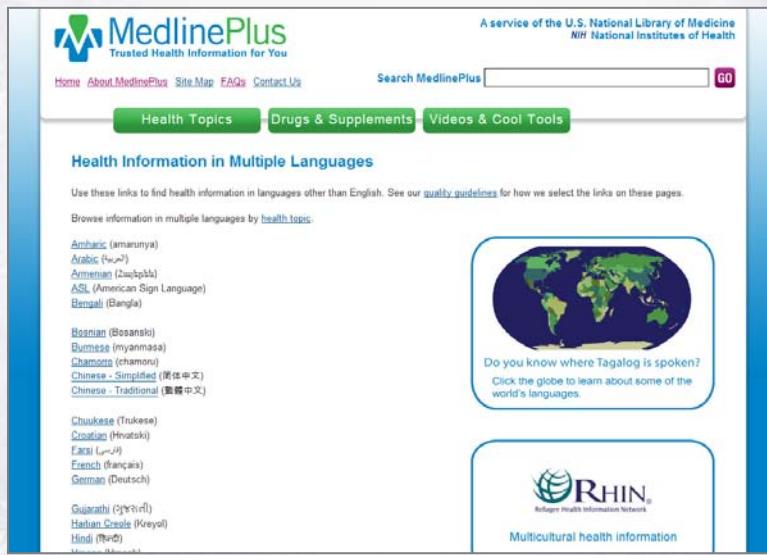
[Find a Dentist](#) (Academy of General Dentistry)

[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

Multiple Languages



The screenshot shows the MedlinePlus homepage with a focus on multilingual resources. At the top, the MedlinePlus logo and the text "Trusted Health Information for You" are visible. To the right, it says "A service of the U.S. National Library of Medicine NIH National Institutes of Health". A search bar is present with the placeholder "Search MedlinePlus". Below the search bar, there are three green buttons: "Health Topics", "Drugs & Supplements", and "Videos & Cool Tools". A navigation menu includes "Home", "About MedlinePlus", "Site Map", "FAQs", and "Contact Us". A "Health Topics" link is underlined. A "Search MedlinePlus" button with a magnifying glass icon and the number "60" are also shown. The main content area is titled "Health Information in Multiple Languages". It includes a list of languages with their names in parentheses: Amharic (አማርኛ), Arabic (عربى), Armenian (Հայերեն), ASL (American Sign Language), Bengali (বাংলা), Bosnian (Босански), Burmese (မြန်မာဘာ), Chamorro (chamoru), Chinese - Simplified (简体中文), Chinese - Traditional (繁體中文), Chukchee (Чукча), Croatian (Hrvatski), Danish (Dansk), French (français), German (Deutsch), Gujarati (ગુજરાતી), Haitian Creole (Kreyòl), Hindi (हिन्दी), Hungarian (Magyar), and Tagalog (Tagalog). To the right of this list is a graphic of a globe with the text "Do you know where Tagalog is spoken? Click the globe to learn about some of the world's languages." Below this is a box for "RHIN" (Refugee Health Information Network) with the text "Multicultural health information".

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.



The screenshot shows the mobile version of the MedlinePlus website. The top bar includes the text "MedlinePlus Heal... 1" with icons for signal strength, battery, and network. The main header is "MedlinePlus" with "U.S. National Library of Medicine" underneath. A search bar with the placeholder "Search MedlinePlus" and a "Go" button is present. To the right of the search bar is the word "español". Below the search bar, there are two main menu items: "Health Topics" (Conditions, diseases and wellness) and "Drugs" (Prescription and over-the-counter medicines). A "Current Health News" link is also visible.

<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



Mentioned as one of the best places to find medical information

(September 30, 2008)

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

Additional Features



NIH Medline Magazine

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- FREE subscription

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- RSS (Really Simple Syndication): Keep up-to-date without cluttering your e-mail inbox

The NIH MedlinePlus Magazine



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Spanish version: <http://medlineplus.gov/esp>

Information Rx Program

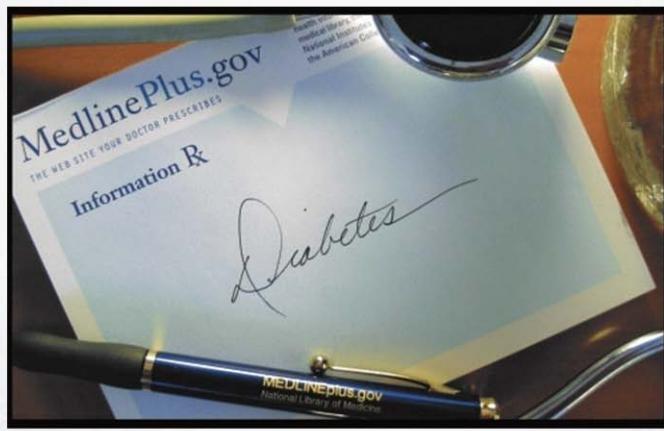
Information Rx

- 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



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:

Health Topics: T

Tachycardia see [Arrhythmia](#)

Traffic Accidents see [Motor Vehicle Safety](#)
 Trans Fats see [Dietary Fats](#)
 Transfusion see [Blood Transfusion and Donation](#)
 Transgender Health see [Gay, Lesbian and Transgender Health](#)

Transient Ischemic Attack
 Transplantation see [Organ Transplantation](#)
 Traumatic Brain Injury
Traveler's Health
 Tremor

Tribal Health see [Native-American Health](#)
[Trichomoniasis](#)

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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

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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 **E**
- Click **Earthquakes** from the alphabetic list
- Click **Directories** under “Reference Shelf”
- Click **Earthquake Risk by State and Territory** (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 **Related Issues** under “Learn More”
- Click **Are You Ready? Earthquakes** (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 **S**
- Click **Stroke** from the alphabetical list
- Click **Diagnosis/Symptoms** under **Basics**

Click	<u>Stroke Risk Factors and Symptoms NIH</u> (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	P
Click	<u>Prostate Cancer</u> from the alphabetical list
Click	<u>Prevention/Screening</u> under Basics
Click	<u>Prostate Cancer (PDQ): Prevention NIH</u> (National Cancer Institute)
Review	the information retrieved and close the pop-up window
Click	<u>Prostate-Specific Antigen (PSA) Test NIH</u> (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	R 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



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

NLM Environmental Health and Toxicology Information Portal

http://nlm.nih.gov/enviro.html

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

- **Toxicology Data**
 - HSDB
 - CCRIS
 - IRIS
 - ITER
 - LactMed
 - GENE-TOX
- **Toxicology Literature**
 - TOXLINE
 - DART/ETIC
- **Chemical Information**
 - ChemIDplus
 - HSDB Structures
 - NCI-3D
- **Toxic Release Information**
 - TRI (1987-2008)
 - TOXMAP
- **Environmental Health**
 - 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



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

HSDB



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 [?]
- ITRER [?]
- LactMed [?]
- Multi-Database [?]
- TRI [?]
- Haz-Map [?]
- Household Products [?]
- TOXMAP [?]
- TOXNET Home [?]

Search HSDB

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

Search
Clear
Help

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

[Limits](#) [Browse the Index](#)

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>

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 
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- IRIS 
- ITER 
- LactMed 
- Multi-Database 
- TRI 
- Haz-Map 
- Household Products 
- TOXMAP 
- TOXNET Home 

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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

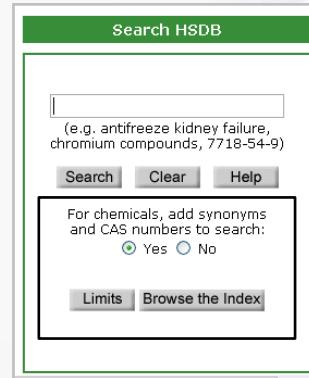
<http://toxnet.nlm.nih.gov>

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



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

Browse the Index

- 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 <input type="text"/>		
Substance Names are sorted in relevancy ranked order.				
Select Record Substance Name				
The following is the primary record for the chemical. All of the query terms were found.				
<input checked="" type="checkbox"/> BENZENE 71-43-2				
The following 1910 records contain one or more of the requested chemical name(s) and all of the query terms anywhere in the record.				
<input checked="" type="checkbox"/> HYDROQUINONE 123-31-9				
<input checked="" type="checkbox"/> TOLUENE 108-88-3				
<input checked="" type="checkbox"/> GASOLINE 8006-61-9				
<input checked="" type="checkbox"/> CATECHOL 120-00-0				
<input checked="" type="checkbox"/> ETANOIC ACID				

Search Results—Record Screen

1. Navigation buttons

2. Table of Contents

3. Chemical data

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.)

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 all categories

Expand all categories

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.

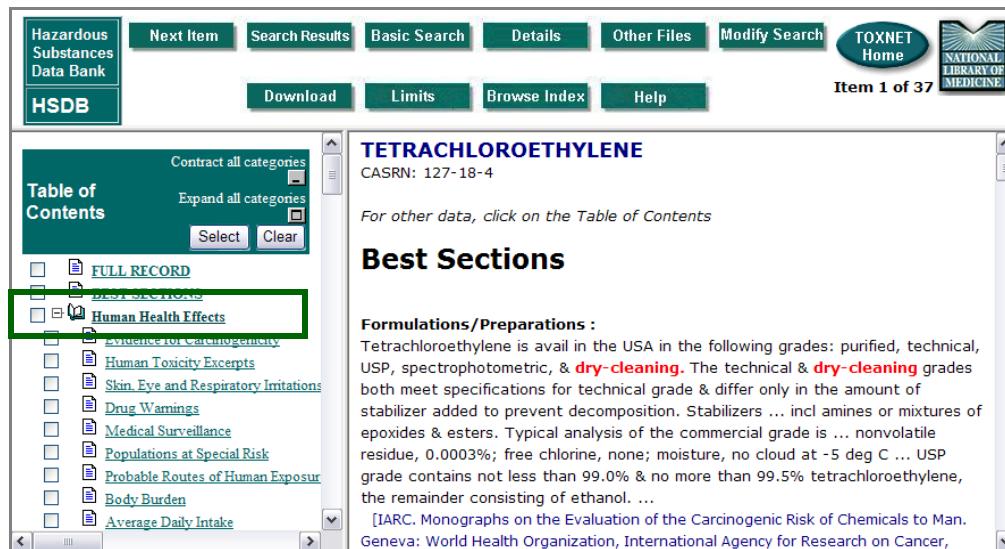
The screenshot shows the TOXNET homepage with the HSDB database selected in the 'Select Database' sidebar. The search box contains the query "dry cleaning", and the 'Search' button is highlighted with a green circle. The search results page is not yet visible in this screenshot.

- Click the **Search** button

The screenshot shows the TOXNET search results page for the query "dry cleaning". The results list 37 records, with the first few items shown in a table:

Rank	Chemical Name	Other Identifiers
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.



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:



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.



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 Human Health Effects 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 Human Health Effects 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

This page is intentionally blank.

Other Resources

Drug Suite

- ▶ **Dietary Supplements Labels Database**
- ▶ **Drug Information Portal**
- ▶ **Pillbox** BETA

Disaster Information & Preparedness Suite

- ▶ **REMM**
- ▶ **Tox Town**
- ▶ **WISER**



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

Other Resources

Other Resources

Drug Suite:

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

Disaster Information & Preparedness Suite:

- REMM
- ToxTown
- WISER

Dietary Supplements Labels Database



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

Click to show or hide

- Examples
- Drug category descriptions,
- List of resources searched

Search DRUG INFORMATION PORTAL
Information available for 19,833 drugs.

By Name By Category Go

Show examples.
Show drug category descriptions.
Show top "By Name" searches (previous seven days). **NEW!**
Show top "By Category" searches (previous seven days). **NEW!**
Show top dispensed prescriptions in the US Market, 2008. **NEW!**
Show list of resources searched.

FLU.GOV
Know what to do
about the flu.
VISIT FLU.GOV
Centers for Disease Control and Prevention

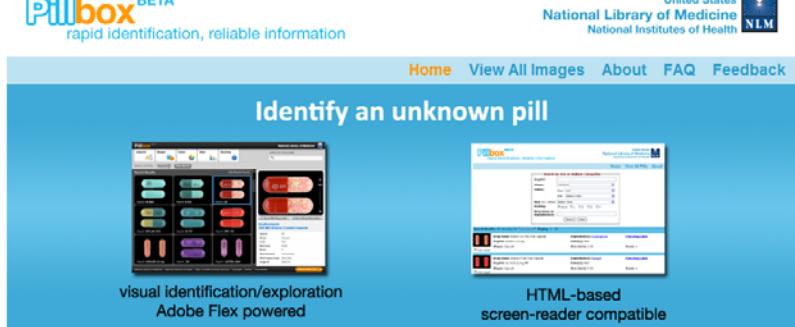
Site Map | Contact Us | Copyright | Privacy | Accessibility

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

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}



Pillbox ^{BETA}
rapid identification, reliable information

United States National Library of Medicine National Institutes of Health **NLM**

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

Identify an unknown pill

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



Disaster Preparedness, Recovery and Response Resources
from the National Library of Medicine

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 <u>Radiation Emergency Medical Management (REMM)</u> Guidance on the clinical diagnosis and treatment of mass casualty radiological/nuclear events for health care providers • <u>Mobile Application</u> <u>Wireless Information System for Emergency Responders (WISER)</u> A system to help emergency responders identify and respond to hazardous materials incidents. Contains information on over 400 chemical, biological and radiological agents • <u>Mobile Application</u>	Medical and Public Health Literature <u>PubMed</u> Thousands of references on disaster/emergency preparedness and response including natural disasters, bioterrorism, chemical terrorism, and pandemic flu • <u>Mobile Application</u> <u>PubMed Central</u> Includes archive of thousands of free full-text articles on disaster/emergency preparedness and response <u>Resource Guide for Public Health Preparedness</u> 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 • <u>Biological and Chemical Warfare Agents</u> • <u>Disaster Recovery and Environmental Health</u> • <u>H1N1 (Swine) Flu</u> • <u>Haiti Earthquake</u> • <u>Health Effects from the Collapse of the World Trade Center</u> • <u>Hurricanes, Tornadoes, and Wildfires</u> • <u>Public Health Preparedness for Mass Gatherings</u> • <u>Special Populations: Emergency and Disaster Preparedness</u>
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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

[PHPPartners.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

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

REMM
RADIATION EMERGENCY MEDICAL MANAGEMENT
Guidance on Diagnosis & Treatment for Health Care Providers

REMM HOME | CONTACT US | SITE MAP | ABOUT REMM

SEARCH

WHAT KIND OF EMERGENCY? | INITIAL EVENT ACTIVITIES | PATIENT MANAGEMENT | MANAGEMENT MODIFIERS | TOOLS & GUIDELINES

WHAT KIND OF EMERGENCY?

- Radiological Dispersal Devices: Dirty Bomb, Other Dispersal Methods
- Radiological Exposure Devices: Hidden Sealed Source
- Nuclear Explosions: Weapons, Improvised Nuclear Devices
- Nuclear Reactor Accidents
- Transportation Accidents
- Discovering an Event

INITIAL EVENT ACTIVITIES

- Onsite Activities
- Triage Guidelines
- Hospital Activities

OTHER AUDIENCES

- First Responders in the Field
- Mental Health Professionals
- Hospitals
- Public Information Officers
- Radiation Safety and Protection
- Response Planning
- Practices and Drills

PATIENT MANAGEMENT

- Choose Appropriate Algorithm: Evaluate for Contamination/Exposure
- Contamination
- Exposure (Acute Radiation Syndrome)
- Exposure + Contamination

MANAGEMENT MODIFIERS

- Radiation + Trauma
- Burn Triage and Treatment
- Mass Casualty
- Psychological Issues
- Specific Populations

TOOLS & GUIDELINES

- Dose Estimator for Exposure
- Template for Hospital Orders
- Use of Blood Products
- Follow-up Instructions
- Population Monitoring
- Management of the Deceased
- Develop a Radiation Response Plan
- Equip an Emergency Department for Decontamination

FEATURES

- Responding to an RDD/RED Emergency: the HHS Playbook, 4/2010 (HHS/ASPR)
- Planning Guidance for Response to a Nuclear Detonation, 1/2009 (Homeland Security Council)
- Key Response Planning Factors for the Aftermath of Nuclear Terrorism, 8/2009 (Lawrence Livermore National Laboratory)
- Population Monitoring in Radiation Emergencies: A Guide for State and Local Public Health Planners, 8/2007 (HHS/CDC)

QUICK LINKS

- [New Users: Where Do I Start?](#)
- [What's New on REMM](#)
- [Patient Management Algorithms](#)
- [Print Algorithms & Tables](#)
- [Isotopes of Interest](#)
- [Countermeasures](#)
- [Decontamination Procedures](#)
- [Dose Estimator for Exposure](#)
- [Manage ARS Subsyndromes](#)
- [Multi-organ Dysfunction Syndrome](#)
- [Hematopoietic Subsyndrome](#)
- [Cutaneous Radiation Syndrome](#)
- [Time/Dose Effects in ARS](#)
- [Time Phases of ARS](#)

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

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

EXPLORE

NEIGHBORHOODS

TOXIC CHEMICALS

WHERE YOU LIVE, WORK, PLAY

YOUR ENVIRONMENT

YOUR HEALTH

Town

Port

City

Farm

U.S.-Mexico Border

Visit the [Crude Oil](#) chemical page.

- MedlinePlus now has a new topic page on [Oil Spills](#).

Oil Spills & Health

NATIONAL LIBRARY OF MEDICINE

Get this Widget

For poisoning emergencies, contact the Poison Help hotline at 1-800-222-1222.

[About](#) [Help](#) [Clip Art & Promotional Materials for Tox Town](#) [E-mail Updates](#) [Contact Us: \[tehip@teh.nlm.nih.gov\]\(mailto:tehip@teh.nlm.nih.gov\)](#)

<http://toxtown.nlm.nih.gov/index.php>

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: **Go**

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

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

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 - \(Department of Transportation - Emergency Response Guidebook\)](#)

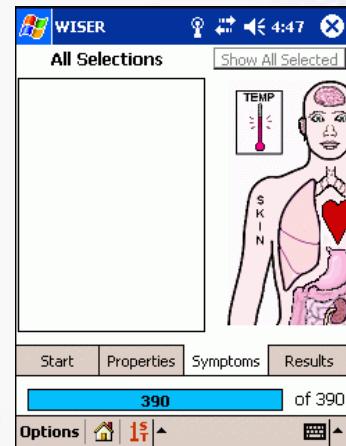
WISER

- 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.



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Select Internet Resources



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

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.raconline.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.aidsinfonet.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/globallink>

American Red Cross

<http://www.redcross.org>

Australian Federation of AIDS Organisations

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

The Body

<http://www.thebody.com>

California AIDS Clearinghouse

[California AIDS Clearinghouse \(CAC\)](http://www.cac.org)

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/HIVAIDS/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.cdcnpin.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 (MMWR)</i>	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://dukeoccmed.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://dukeoccmed.mc.duke.edu>

Finnish Institute of Occupational Health (FIOH)

Health and Safety Executive (HSE)

Injury Control Resource Information Network (ICRIN).....<http://www.injurycontrol.com/icrin>

International Occupational Safety
and Health Information Centre (CIS)

International Programme for Chemical Safety (IPCS) INCHEM

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)

OshWeb (Occupational Safety & Health)

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)

Laboratory Chemical Safety Summaries (LCSS).....<http://www.hhmi.org>

National Center for Toxicological
Research (NCTR)

National Institute of Environmental Health Sciences (NIEHS)

National Institutes of Health (NIH)

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

Human Subjects Protection Program (Department of Energy)

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.surfwax.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



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

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?

United States
National Library of Medicine
National Institutes of Health

The World's Largest Medical Library

Contact NLM | Site Map | FAQs

Search NLM Web Site Go

Especially for:

- The Public
- Health Care Professionals
- Researchers
- Librarians
- Publishers

Current Health News

- [Black Cancer Patients Twice as Likely to Die from Disease](#) (07/02/10)
- [Hepatitis A Vaccine Pays Off for Kids](#) (07/02/10)
- [Too Much Fructose Could Raise Your Blood Pressure](#) (07/02/10)
- [More Health News](#)

NLM News and Press Releases

- [New Online Exhibition Featuring NLM's Medieval Manuscripts and Early Printed Books](#) (06/30/10)
- [NLM Invites Nominations for IHTSDO Standing Committees Due July 14, 2010](#) (06/18/10)
- [IHTSDO Recruiting for New CEO – Applications Due June 25, 2010](#) (06/14/10)
- [Spanning More than a Century, Letters Shed Light on Physicians' Lives in Virginia's Shenandoah Valley](#) (06/14/10)
- [More NLM News](#)

nlm in focus
Presenting *NLM in Focus*.
This new online newsletter

PubMed
Biomedical journal literature from MEDLINE/PubMed
[VISIT SITE](#)

MedlinePlus
Health and drug information for patients, family and friends
[VISIT SITE](#) [ESPAÑOL](#)

Images from the History of Medicine
View prints, photographs, posters and other images
[VISIT SITE](#)

Household Products Database
Health and safety information on household products
[VISIT SITE](#)

ClinicalTrials.gov
Drug and Treatment

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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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>

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