

National Library of Medicine: Empowering Minority Communities with Health Information

November 12, 2010
Alcorn State University
Natchez, MS





THE NATIONAL LIBRARY OF MEDICINE: EMPOWERING MINORITY COMMUNITIES WITH HEALTH INFORMATION

A Specialized Training Course
developed for the

United Negro College Fund Special Programs Corporation/
National Library of Medicine HBCU Access Project

Presented at the

Alcorn State University
Natchez, MS
November 12, 2010

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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.

Preface

The *National Library of Medicine: Empowering Minority Communities with Health Information* training is designed specifically for the United Negro College Fund Special Programs Corporation National Library of Medicine HBCU eHealth ACCESS Project (UNCFSP/NLM-HBCU ACCESS Project) awardees to increase awareness and use of the National Library of Medicine (NLM) online health, environmental health, and toxicology resources and to assist grantees with their respective projects addressing health education and promotion and disease prevention on campus and in the surrounding communities. These resources provide invaluable tools to address the needs of HBCUs and community-based organizations that need the most accurate and up-to-date health and medical information, including health literacy, chronic and acute illnesses, health disparities, and environmental health issues.

The workbook provided contains a brief summary of each NLM resource covered in the class followed by search exercises using realistic scenarios and is designed to be used as a reference following the course. Additional resources selected for their quality and relevant content, are also included for your reference.

The UNCFSP/NLM-HBCU ACCESS Project training is sponsored by the National Library of Medicine and the United Negro College Fund Special Programs Corporation.



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

The National Library of Medicine (NLM), a part of the National Institutes of Health, is the world's largest medical library with a mission to collect and disseminate trustworthy, reliable health information to health care professionals, researchers, patients, and the public.



<http://www.uncfsp.org>

The United Negro College Fund Special Programs Corporation (UNCFSP), through its programs and partnerships, serves as a gateway to opportunities that strengthen Minority Serving Institutions of higher education in the areas of research, workforce development, and infrastructure development.

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Agenda

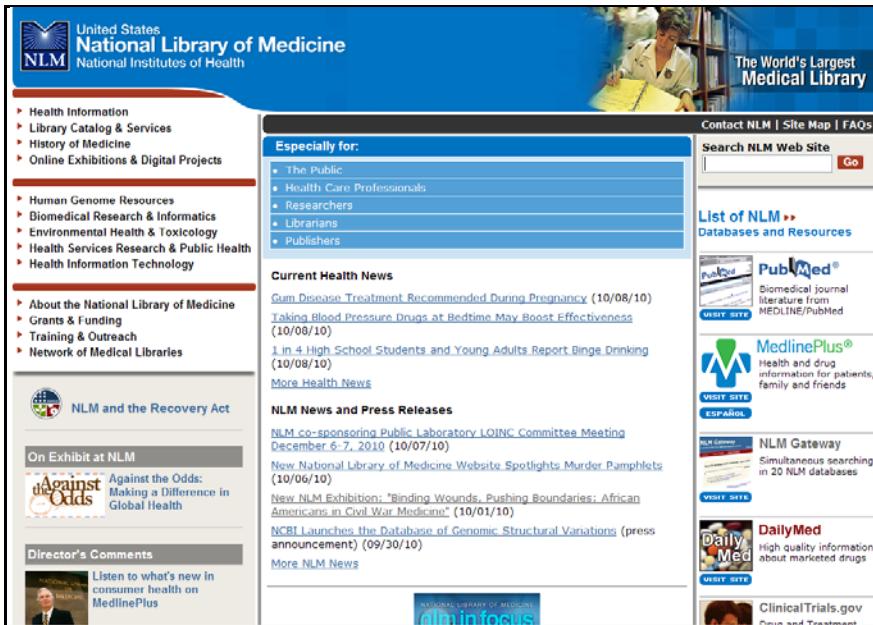
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Agenda

- 8:00 a.m. Welcome and Introductions
- 8:10 Introduction
- 8:15 Finding Quality Health Information on the Internet
- 8:20  Medline/PubMed
- 9:15  MedlinePlus
- 9:50 **Break**
- 10:00  ClinicalTrials.gov
- 10:30  AIDSinfo
- 11:00  DIRLINE
- 11:15 More to Explore (*instructor demonstrations*)
- 11:30  NIHSeniorHealth
- 12:00 p.m. **LUNCH**
- 1:00 Introduction to NLM's Environmental Health and Toxicology Resources
(*instructor demonstrations*)
- 1:30  HSDB
- 2:00  Household Products Database
- 2:15 TRI/TOXMAP and ToxTown (*instructor demonstrations*)
- 2:30  The NLM Gateway
- 2:45 Questions/Post-Test
- 3:00 Class ends

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Introduction



The screenshot shows the homepage of the National Library of Medicine (NLM) website. The header features the NLM logo and the text "United States National Library of Medicine, National Institutes of Health". A large image of a person working in a library is on the right. The main content area is titled "The World's Largest Medical Library". It includes a sidebar with links to "Especially for:" (The Public, Health Care Professionals, Researchers, Librarians, Publishers), "Current Health News" (Gum Disease Treatment Recommended During Pregnancy, Taking Blood Pressure Drugs at Bedtime May Boost Effectiveness, 1 in 4 High School Students and Young Adults Report Binge Drinking), "NLM News and Press Releases" (NLM co-sponsoring Public Laboratory LOINC Committee Meeting December 6-7, 2010, New National Library of Medicine Website Spotlights Murder Pamphlets, New NLM Exhibition: "Binding Wounds, Pushing Boundaries: African Americans in Civil War Medicine"), and "Director's Comments" (Linton to what's new in consumer health on MedlinePlus). The right sidebar contains links to "Contact NLM", "Search NLM Web Site", "List of NLM Databases and Resources" (PubMed, MedlinePlus, NLM Gateway, DailyMed, ClinicalTrials.gov), and "Español".

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

Introduction

Purpose

The purpose of this training is to familiarize participants with reliable online health information from the National Library of Medicine (NLM) and other reputable resources that address disease prevention, health promotion, and wellness. Skills and knowledge acquired in this training will enable representatives of HBCUs and their communities to effectively train others on the utilization of NLMs resources. Training participants will become empowered about quality online health resources, and take a more active role addressing health disparities.

Objectives

After completing this course, participants will be able to:

- ▶ Identify and evaluate quality, accurate, and authoritative online resources pertaining to health disparities and related medical conditions.
- ▶ Demonstrate the ability to perform strategic search techniques to find disease prevention and wellness information.
- ▶ Apply the skills and knowledge obtained in training to their campus curricula and local communities.

Databases Covered in This Class

The following medical resources will be covered with time for hands-on practice:

- ▶ **MEDLINE/PubMed**—a bibliographic database that provides access to over 20 million references to journal articles published in 5,400 journals in the fields of medicine and the life sciences
- ▶ **MedlinePlus**—a consumer health information resource, including full-text documents on over 800 medical topics, information on drugs, a medical encyclopedia, medical dictionaries, and directories of libraries, hospitals, and health care professionals
- ▶ **ClinicalTrials.gov**—an online source that provides regularly updated information about federally and privately supported clinical research for a wide range of diseases and conditions, including locations and phone numbers for more details
- ▶ **AIDSinfo**—a Department of Health and Human Services Web site that provides the latest federally approved information on HIV/AIDS clinical research, treatment and prevention, and medical practice guidelines for consumers and health care providers in English and Spanish
- ▶ **DIRLINE**—an online directory of over 8,000 health-related organizations offering information and referral for many diseases and conditions

- ▶ **NIH SeniorHealth**—resources for older adults designed for maximum accessibility to aging-related health information

The following environmental health and toxicology resources will be covered with time for hands-on practice:

- ▶ **Hazardous Substances Data Bank (HSDB)**—comprehensive, peer-reviewed toxicological and environmental data for over 5,000 chemicals
- ▶ **Household Products Database**—human health effects information on over 10,000 brand-name consumer products
- ▶ **NLM Gateway**—Web-based search interface that allows users to search simultaneously in multiple NLM retrieval systems, providing “one-stop searching” for many of NLMs information resources and databases

Additional online resources of special interest will be demonstrated.

- ▶ **Genetic Home Reference™**— Web site for consumer information about genetic conditions and the genes or chromosomes responsible for those conditions
- ▶ **Multi-Cultural Resources for Health Information**—selected links to multi-cultural Internet resources with a focus on addressing cultural and linguistic competency in health care
- ▶ **Women’s Health Resources**—selected links to Internet resources of special interest to women based on current research priorities
- ▶ **Special Populations: Emergency and Disaster Preparedness**—provides practical information on how special populations (i.e. disabled, seniors, hearing or visually impaired, children) can prepare for an emergency
- ▶ **NLMs Enviro-Health Links**—selected links to Internet resources on toxicology and environmental health issues of special interest
- ▶ **Toxics Release Inventory (TRI)**—information on annual environmental releases of over 600 toxic chemicals by U.S. facilities from the U.S. Environmental Protection Agency
- ▶ **TOXMAP**—geographic Information System that uses maps of the United States to help users visually explore data from the Environmental Protection Agency’s Toxics Release Inventory
- ▶ **Tox Town**—interactive guide to commonly encountered toxic substances and environmental health risks

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Finding Quality Health Information



The screenshot shows the homepage of the National Library of Medicine (NLM) website. The header features the NLM logo and the text "United States National Library of Medicine, National Institutes of Health". A banner on the right side says "The World's Largest Medical Library" and shows a photo of a person working in a library. The main content area is divided into several sections:

- Especially for:** A list including "The Public", "Health Care Professionals", "Researchers", "Librarians", and "Publishers".
- Contact NLM | Site Map | FAQs**
- Search NLM Web Site** (with a search bar and "Go" button).
- List of NLM Databases and Resources** (with links to "PubMed", "MedlinePlus", "NLM Gateway", and "DailyMed").
- Current Health News** (with links to "Gum Disease Treatment Recommended During Pregnancy", "Taking Blood Pressure Drugs at Bedtime May Boost Effectiveness", and "1 in 4 High School Students and Young Adults Report Binge Drinking").
- More Health News**
- NLM News and Press Releases** (with links to "NLM co-sponsoring Public Laboratory LOINC Committee Meeting December 6-7, 2010", "New National Library of Medicine Website Spotlights Murder Pamphlets", "New NLM Exhibition: 'Binding Wounds, Pushing Boundaries: African Americans in Civil War Medicine'", and "NCBI Launches the Database of Genomic Structural Variations" (press announcement)).
- More NLM News**
- Director's Comments** (with a link to "Listen to what's new in consumer health on MedlinePlus").
- On Exhibit at NLM** (with a link to "Against the Odds: Making a Difference in Global Health").
- NLM and the Recovery Act** (with a link to "Against the Odds: Making a Difference in Global Health").
- clim in focus**

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

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?

Link to
List of NLMs
Databases
& Resources

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
www.hon.ch/HONcode
- Evaluating Internet Health Information: A Tutorial from the National Library of Medicine
www.nlm.nih.gov/medlineplus/webeval/webeval.html
- MedlinePlus—Evaluating Health Information
www.nlm.nih.gov/medlineplus/evaluatinghealthinformation.html
- National Network of Libraries of Medicine—Is this health information good for me?
nnlm.gov/pnr/hip/criteria.html
(en Español: nnlm.gov/pnr/hip/informacion.html)
- Quackwatch
quackwatch.com



Savvy Health Surfing Exercises

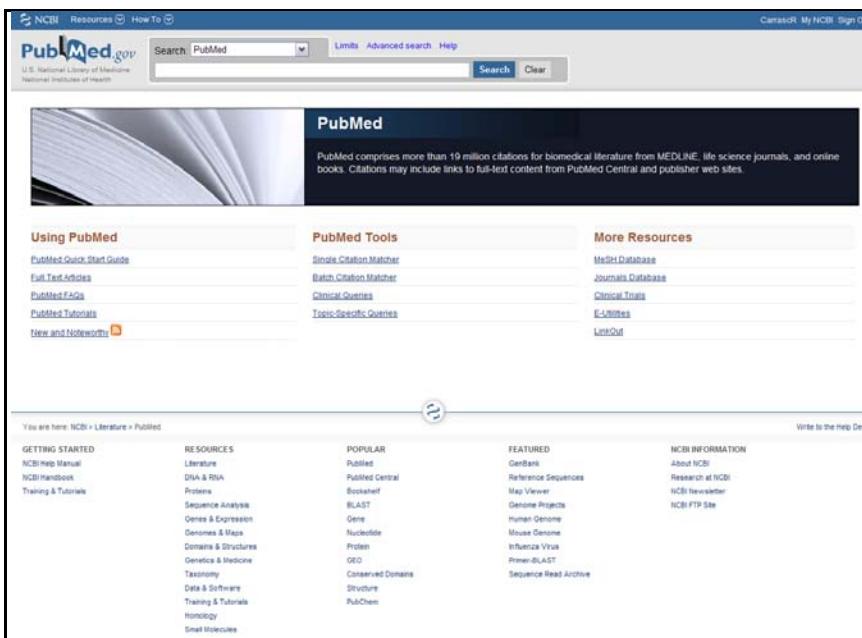
Review the following Web sites and determine if each is reliable according to the Savvy Health Surfing criteria discussed in class.

	Authority/ Accuracy	Coverage	Currentness	Objectivity	Design
1. www.thinktwice.com					
2: tourette13.tripod.com/					
3: www.healthfree.com					
4: www.malepregnancy.com					
5: www.healthcentral.com					
6: www.drugs.com					
7: www.thebody.com					
8: www.nwsids.org					
9: www.medical-library.net					
10: www.webmd.com					
11: www.drclark.net					
12: www.aaemonline.org					
13: www.pslgroup.com/dg950925.htm					
14: www.amaasportsmed.org					
15: www.bonetumor.org					
16: www.biausa.org					
17: sparkaction.org					
18: www.curezone.com					

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MEDLINE/PubMed



pubmed.gov

MEDLINE/PubMed

PubMed is a database developed by the National Center for Biotechnology Information (NCBI) at the National Library of Medicine and is available free on the Web. PubMed provides access to **MEDLINE**, NLM's premier bibliographic database containing citations and author abstracts from over 5,400 biomedical journals published in the United States and in other countries. PubMed also provides access to citations for selected articles in life science journals not included in MEDLINE and additional relevant Web sites and links to molecular biology resources. The scope of MEDLINE includes such diverse topics as microbiology, delivery of health care, nutrition, pharmacology, and environmental health. The topics in MEDLINE include everything from anatomy, organisms, diseases, psychiatry, and psychology to the physical sciences.

The screenshot shows the PubMed homepage with several labeled sections:

- NCBI Header:** Located at the top, it includes the NCBI logo, a Resources pull-down menu, a How To menu, and a My NCBI Sign In link.
- Search Bar:** Located at the top, it includes a database selection menu (set to PubMed), a search input field, and a search button.
- PubMed Content Area:** The main content area features a large image of an open book, the PubMed logo, and a brief description of the database.
- Tools & Resources:** A vertical column on the right side containing links to various NCBI resources, grouped under "More Resources".
- Links to NCBI resources:** A vertical column on the right side containing links to various NCBI resources, grouped under "Links to NCBI resources".

pubmed.gov

PubMed Homepage

The PubMed homepage includes a NCBI Header, Search Bar, and Footer that are common to all PubMed pages. The **NCBI Header** includes a NCBI Resources pull-down menu categorized by topic, a How To menu, and the Sign In for My NCBI. The **Search Bar** has the database selection menu, and includes a link to **Advanced search** and **Help**. Additional Search bar selections, RSS, and Save search, display after running a PubMed search. Popular tools and resources are under **PubMed Tools** (e.g., the Single Citation Matcher, Clinical Queries, and Topic-Specific Queries) and

More Resources (e.g., MeSH Database, Journals Database, and Clinical Trials). The **Footer** includes links to many NCBI resources.

Searching PubMed

Enter your search term(s) into the search box and click the Search button for basic searching. To find an author, enter the author's last name, then first and second initials (e.g., smith ja). Other search options include the following:

- To search for a journal, use the Journals Database—allows searching by topic, journal title/abbreviation, ISSN, or browsing by subject terms.
- To build a search strategy with MeSH terms, use the MeSH Database—NLMs controlled Medical Subject Heading (MeSH) vocabulary provides a consistent way to retrieve information that may use different terminology for the same concepts.
- To search for specific types of references, use either Clinical Queries or Topic-Specific Queries.

Limits

Refine and focus your search with the **Limits** option located above the search box. Checkboxes may be selected for Type of Article, Language, Subsets of journals or topics, Ages, Humans or Animals, Gender, and Dates. Restrict a search to items with links to full text, and make multiple choices within categories. A “Limits Activated” message will appear above the search results list. Limits remain in effect until removed.

Limits

Dates

Published in the Last:

Type of Article

- Clinical Trial
- Editorial
- Letter
- Meta-Analysis
- Practice Guideline

Species

- Humans
- Animals

Languages

- English
- French
- German
- Italian
- Japanese

Subsets

Journal Groups

- Core clinical journals
- Dental journals
- Nursing journals

Gender

- Male
- Female

Text Options

- Links to full text
- Links to free full text
- Abstracts

Ages

- All Infant: birth-23 months
- All Child: 0-18 years
- All Adult: 19+ years
- Newborn: birth-1 month
- Infant: 1-23 months

Search Field Tags

Field:

Advanced Search

The Advanced Search link provides three options to refine and focus a search: **Search Builder**, **Search History**, and **More Resources**. Search Builder allows creation of a search using Boolean operators. Using the All Fields selection will run search terms through the Automatic Term Mapping process, or a specific field may be selected to apply to the term. Search History tracks search statements and numbers them as links. Clicking on the numbered link provides a menu allowing search statements to be combined into a new search with the AND, OR or NOT Boolean operators, or to be viewed, deleted, examined in detail, or saved in My NCBI. More Resources provides links to the MeSH and Journals databases, Single citation Matcher, Clinical Queries, and Topic-Specific Queries.

PubMed Advanced Search

[« Back to PubMed](#)

Search Box

Limits Details Help

Search Preview Clear

Search Builder

All Fields AND Add to Search Box

Show Index

Search Builder Instructions

Search History

Search History Instructions

More Resources

MeSH Database
Journals Database
Single Citation Matcher
Clinical Queries
Topic-Specific Queries

Search Results

Search results initially display in a summary format in the order they were entered in PubMed as last in, first out. By default, the system displays 20 citations per page. Search results include the following:

- Links to related articles for all citations—click the Related Citations link below the citation
- Links to free full text articles, if available,—click Free article below the citation
- Links to free full text journal articles at Web sites of participating publishers—click Free Full Text under Filter your results

- Links to other NLM resources for additional information—see on the right side of your Search Results page, Titles with your search terms, Free Full-text articles in PubMed Central, Find Related Data and other related information

To display the abstract for a journal article, click the title link. Some citations do not have abstracts and will include the note “No abstract available.”

My NCBI

My NCBI is an easy way to save and update searches on topics of continuing interest. You can choose filters that group your search results. Search updates will automatically be e-mailed to you if selected. To use My NCBI, you must first register and your browser will need to allow pop-ups from the NCBI Web page. Click My NCBI on the right side of the NCBI header.

Ordering Documents

NLMs Loansome Doc is an automated document ordering program that allows PubMed users to order the full text of an article from a participating library. Before an order can be placed, and before a user can register, all Loansome Doc users must first establish an agreement with a library that uses DOCLINE® (NLMs automated interlibrary loan request and referral system). Users who are unsure about which library to contact may obtain assistance from the Regional Medical Library (RML) in their area by calling 1-800-338-7657, Monday-Friday, 8:30 AM - 5:00 PM in all time zones. To register with Loansome Doc go to <https://docline.gov/loansome/login.cfm>. During the online registration process, you will create a user account with your name, address, e-mail, and ordering preference.

From PubMed registered Loansome Doc users can access Loansome Doc by performing a search, clicking the check box to the left of the articles they want to order, and selecting **Send to Order** from the pull down menu.

Additional Resources

For further information, we recommend these additional resources:

- PubMed Help (an online Help book)
ncbi.nlm.nih.gov/books/bv.fcgi?rid=helppubmed.chapter.pubmedhelp
- PubMed Quick Tour: Simple Subject Search
www.nlm.nih.gov/bsd/viewlet/search/subject/subject.html
- PubMed Quick Tour: Search for an Author
www.nlm.nih.gov/bsd/viewlet/search/author/author.html
- CAM (Complementary and Alternative Medicine) on PubMed
nnlm.gov/training/consumer/cam/cam-pubmed.pdf
- Getting Started with LinkOut (National Network of Libraries of Medicine)
nnlm.gov/training/linkout/



MEDLINE/PubMed Search Exercises

Search Example: Find articles on the relationship between pain management and racial disparities.

Suggested Solution:

- ▶ Go to pubmed.gov
- ▶ Type **pain management racial disparities** in the search box
- ▶ Click the **Search** button

The screenshot shows the PubMed search results page. The search bar at the top contains the query 'pain management racial disparities'. The 'Search' button to the right of the search bar is highlighted with a red box. Below the search bar, the PubMed logo and the text 'U.S. National Library of Medicine National Institutes of Health' are visible. The main content area displays a search result for a paper titled 'Racial and ethnic disparities in osteoarthritis phenotypes'. The page includes links for 'Using PubMed', 'PubMed Tools', and 'More Resources'.

- ▶ Review the citations retrieved
- ▶ Click the **Clear** button to the right of the search box to prepare for the next search

The screenshot shows the PubMed search results page for the same query. The 'Clear' button in the search bar is highlighted with a red box. The results list includes three items, with the first one being the paper on racial and ethnic disparities in osteoarthritis phenotypes. The right sidebar shows a summary of results and a 'Find related data' section.

Exercise 1: Find articles that discuss diabetes disparity.

Suggested Solution:

Type	diabetes disparity in the search box
Click	the Search button
Review	the citation(s) retrieved
Click	the Clear button to prepare for the next search

Exercise 2: Find articles on prostate cancer treatment in African Americans. Limit your search to the nursing journals.

Suggested Solution:

Type	prostate cancer treatment african americans in the search box
Click	Limits
Click	“Nursing Journals” checkbox in Subsets under Journal Groups
Click	the Search button and review the citation(s) retrieved
Click	<u>Remove</u> to the right of Limits Activated : Nursing Journals and the Clear button to prepare for the next search

Exercise 3: Find articles published in the last year on cardiovascular disease and nutrition.

Suggested Solution:

Type	cardiovascular disease nutrition in the search box
Click	Limits
Select	1 year from the “ Published in the Last: ” pull-down bar under Dates
Click	the Search button and review the citation(s) retrieved
Click	<u>Remove</u> to the right of Limits Activated : published in the last 1 year and the Clear button to prepare for the next search

Exercise 4: Research published articles on the subject of genital herpes transmission and AIDS in adults. Next, e-mail an abstract to yourself in text form.

Suggested Solution:

Type	genital herpes transmission in the search box
Click	Limits
Click	“AIDS” in the Subsets box under Topics
Click	“All Adult: 19+ years” in the Ages box
Click	the Search button
Click	the box to the left of a record of your choice
Click	E-mail from the “Send to” pull-down menu and Abstract (text) from the “Format” menu
Type	your e-mail address in the e-mail box
Click	the E-mail button

Review	the e-mail confirmation message next to the checkmark symbol above the results
Click	<u>Remove</u> to the right of Limits Activated: AIDS, All Adult: 19+ years and the Clear button to prepare for the next search

Exercise 5: Find articles published in the last two years that focus on health literacy. Limit your search to citations that include free full-text articles.

Suggested Solution:

Type	health literacy in the search box
Click	Limits
Select	2 years from the “ Published in the Last: ” pull-down bar under Dates
Click	“Links to free full text” under Text Options
Click	the Search button
Review	the citation(s) retrieved
Click	<u>Remove</u> to the right of Limits Activated: only items with links to free full text, published in the last 2 years and the Clear button to prepare for the next search

Exercise 6: Find articles in PubMed Central (PMC) that discuss obesity in African American children.

Suggested Solution:

Select	PMC from the search pull-down menu above the search box
Type	obesity african american children in the search box
Click	the Search button and review the citation(s) retrieved
Click	PubMed in the list of databases above the search box to return to the PubMed home page

Suggested Solution #2:

Click	PubMed Central at the bottom of the page under “ POPULAR ”
Type	obesity african american children in the search box
Select	the <u>search all articles</u> button below the search box
Click	the Search button and review the citation(s) retrieved
Click	PubMed in the list of databases above the search box to return to the PubMed home page

Exercise 7: Set up a My NCBI user account and conduct a search for articles on hypertension prevention in African Americans. Next, save your search in My NCBI.

Suggested Solution:

Click	My NCBI in the top right corner 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.
Click	PubMed in the list of databases at the top of the page
Type	hypertension prevention african american in the search box
Click	the Search button
Click	Save Search at the top of the screen to the right of the search box
Click	the Save button in the pop-up window
	 Follow the directions for setting up e-mail updates, then click the save button.

Saving and Printing Records in PubMed

The PubMed **Send to Text** function creates a text file of PubMed records, which you can save on your computer. The **Send to** button is available on screens with search results. You can save the entire results of a specific search or selected records. If you don't select specific records 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 10,000 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 to specify where this file should be placed on your computer, and also give you the opportunity to rename the file.

Saving Entire Search Results

- Use the **Display** pull-down menu to select a format.
- Click **Send to File** and your items will be saved in the **Display** format as plain text.
 - ☞ The default for the File feature is to save the entire retrieval—up to 10,000 items—unless you specifically select citations. For example, if you use the Send to File selection on a screen displaying 1-20 items of 2,356, your saved file will contain all 2,356 citations.

Saving Selected Citations from a Single Search

- Use the **Display** pull-down menu to select a format.
- Click in the check boxes next to each citation you want to save. You can move to other pages within the search results to make additional selections.
- Click **Send to File** and your selected items will be saved in the **Display** format as plain text.
 - ☞ 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 use the **Show** function and **Send to Text** to adjust your display as needed.

Clipboard

To place an item in the Clipboard, click on the check box to the left of the citation, select **Clipboard** from the **Send to** pull-down menu, and then click the **Send to** button. Once you have added a citation to the Clipboard, the record number color will change to green.

-  If you select Clipboard from the **Send to** menu without selecting citations using the check box, PubMed will add all (up to 500 citations) of your search results to the Clipboard. The Clipboard will be lost after one hour of inactivity on PubMed or any of the other Entrez databases.
-  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, which 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 [1a]
-  This does not affect or replace the Clipboard contents.

E-mail

To e-mail your results, click on specific citations and select E-mail from the **Send to** pull-down menu. You may e-mail up to 500 items. You may select the format, the sorting method, and HTML or text. In addition, you may enter a message that will be included with the PubMed search results in the e-mail message. The e-mail page reflects settings from the results page and can be modified.

After clicking the **E-mail** button, the system returns you to your results page and displays a message confirming that the e-mail message was sent. Your PubMed results will be sent from the NCBI automatic mail server, Sent by Entrez [nobody@ncbi.nlm.nih.gov] with a "Subject" of PubMed Search Results. Do not reply to this message. This is not a functioning customer service e-mail address.

-  If you choose HTML, your PubMed e-mail message displays as a PubMed results page and includes hyperlinks to Related Articles, LinkOut, and other PubMed features. The recipient's e-mail program must be set for HTML view in order to properly view in HTML format.

Order

The **Order** function allows you to order the full-text copy of an article from a library in your area using the **Order Documents** feature of PubMed.

-  Prior to using this program, 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 Documents from the PubMed sidebar menu, then Loansome Doc under **Loansome Doc Options**, then Sign up! from the Loansome Doc screen.
-  Once you have registered with Loansome Doc, you can order documents by clicking the check box to the left of each citation for documents 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** menu, and click the **Send to** button. You may also use the Clipboard to collect items from multiple searches before ordering.



For some journals the full-text of 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. You may also choose **LinkOut** from the Links pull-down menu to the right of each citation. 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 the full-text of articles in some journals.

Importing Citations into a Reference Manager Program

To export citations into a reference management program such as EndNote, Reference Manager, and ProCite:

1. In your search results, use the citation check boxes to select citations. To export all the citations do not select any citations.
2. From **Send to**, select **File**.
3. Select MEDLINE from the Format menu and click **Create File**.
4. Import this saved file into your reference management program.



Questions regarding these commercial software packages should be directed to the respective companies.

Print

Use the print function of your Web browser to print all the information and citations displayed on your Web page. Before printing, consider using the Show (number of pages) Feature to increase the number of documents per page so that the total number of documents is displayed on one page (maximum: 500 per page). You can print only the citations from the displayed page.



You may also wish to display your citations as "Text" to strip the sidebar menu and toolbars prior to printing your results.

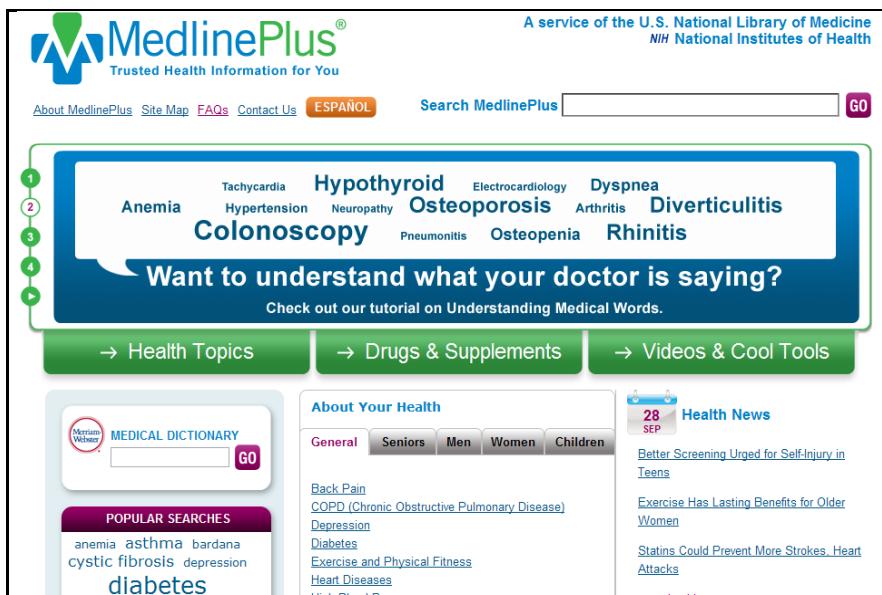


You may want to print selected items from one or more searches on a single page. You can do this by collecting them in PubMed's Clipboard.

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4

MedlinePlus



The screenshot shows the homepage of MedlinePlus. At the top, the MedlinePlus logo and the text "Trusted Health Information for You" are on the left, and "A service of the U.S. National Library of Medicine NIH National Institutes of Health" are on the right. Below the logo is a navigation bar with links for "About MedlinePlus", "Site Map", "FAQs", "Contact Us", "ESPAÑOL", and a search bar with a "GO" button. A large blue banner in the center contains a speech bubble with medical terms: "Hypothyroid", "Dyspnea", "Osteoporosis", "Diverticulitis", "Colonoscopy", "Pneumonitis", "Osteopenia", and "Rhinitis". Below the banner is a call-to-action: "Want to understand what your doctor is saying? Check out our tutorial on Understanding Medical Words." To the left of the banner is a vertical navigation menu with numbered buttons 1 through 4. Below the banner are three green buttons: "→ Health Topics", "→ Drugs & Supplements", and "→ Videos & Cool Tools". On the left side, there is a "MEDICAL DICTIONARY" search box and a "POPULAR SEARCHES" list with terms like "anemia", "asthma", "cystic fibrosis", "depression", and "diabetes". On the right side, there is a "About Your Health" section with tabs for "General", "Seniors", "Men", "Women", and "Children", and a "Health News" section with a "28 SEP" header and links to articles like "Better Screening Urged for Self-Injury in Teens" and "Exercise Has Lasting Benefits for Older Women".

medlineplus.gov

MedlinePlus

MedlinePlus is the National Library of Medicine's answer to consumer friendly, authoritative health information. It contains health information especially written for consumers and patients by the National Institutes of Health and other trusted sources. MedlinePlus contains information on over 800 health topics, lists of hospitals and physicians, extensive information on prescription and non-prescription drugs, interactive tutorials on many health conditions, links to articles on the latest health news, health information in more than forty languages, and much more.



The screenshot of the MedlinePlus homepage is annotated with several red boxes and arrows pointing to specific features:

- Spanish Version**: Points to the "ESPAÑOL" button in the top right corner.
- Frequently Visited Health Topic Pages**: Points to the "MEDICAL DICTIONARY" and "POPULAR SEARCHES" sections on the left.
- Displays Current Topics and New Content**: Points to the "Colonoscopy" section in the main banner.
- Tutorials, Calculators, Quizzes, and Games**: Points to the "About Your Health" section and the "Health News" and "Stay Connected" boxes.
- Free Quarterly Magazine**: Points to the "MAGAZINE" button in the bottom right corner.

Key features highlighted in the screenshot include:

- MedlinePlus** logo and tagline "Trusted Health Information for You".
- Search Bar**: "Search MedlinePlus" with a "GO" button.
- Language Options**: "ESPAÑOL" button.
- Health Topics**: "Colonoscopy" and a list of related terms: Anemia, Tachycardia, Hypothyroid, Electrocardiology, Dyspnea, Osteoporosis, Arthritis, Diverticulitis, Hypertension, Neuropathy, Pneumonitis, Osteopenia, Rhinitis.
- Interactive Tutorials**: "Want to understand what your doctor is saying?" and "Check out our tutorial on Understanding Medical Words."
- Drugs & Supplements**: "→ Health Topics", "→ Drugs & Supplements", and "→ Videos & Cool Tools".
- Health News**: "28 SEP Health News" with links to "Better Screening Urged for Self-Injury in Teens", "Exercise Has Lasting Benefits for Older Women", and "Statins Could Prevent More Strokes, Heart Attacks".
- Stay Connected**: "Get the latest information on the health topics that matter to you most. Sign up for MedlinePlus email updates." with an "Enter email address" input field and a "GO" button.
- NIHSeniorHealth**: "Visit NIHSeniorHealth.gov - Easy-to-Use Health and Wellness Information for Older Adults" with a photo of an older couple.
- Featured Site**: "September is National Cholesterol Education Month" with an image of a blood vessel.
- Bottom Navigation**: "MAGAZINE", "EASY TO READ", and "MULTIPLE LANGUAGES".

medlineplus.gov

Features

Features offered by MedlinePlus include:

- Easy-to-read language
- Easy-to-navigate pages

- New links added daily
- No advertising or endorsements
- Spanish version: medlineplus.gov/spanish

Searching MedlinePlus

To search MedlinePlus, type a word or phrase into the search box. Your initial search results show matches from all of the MedlinePlus content areas. The default display for MedlinePlus searches is a comprehensive list of **All Results**. The links in the **Refine by Type** box represent sets of MedlinePlus content areas, known as collections. The collections help you narrow your search by displaying results exclusively from one collection. The **Refine by Keyword** box organizes your search results into groups based on the most frequent words in the top 200 results

Enter Search Term

Browsing MedlinePlus

Health Topics can be browsed alphabetically, by body location and symptoms, disorders and conditions and demographic groups. Read about symptoms, causes, treatment and prevention for diseases, illnesses, health conditions and wellness issues. **Drugs & Supplements** can be browsed alphabetically by brand or generic names. Learn about your prescription drugs and over-the-counter medicines, including side effects, dosage, special precautions, and more. Browse dietary supplements and herbal remedies to learn about their effectiveness, usual dosage, and drug interactions. **Videos and Cool Tools** contains an alphabetical list of multimedia health resources, including calculators, quizzes, games, interactive tutorials, and anatomy and surgery videos.

Browse Alphabetically

Browse by Categories

Staying Connected



Mobile Version

Mobile MedlinePlus provides authoritative health information for mobile Internet users. It includes a subset of content from the full Web site. It includes summaries for more than 800 diseases, conditions and wellness topics as well as the latest health news, an illustrated medical encyclopedia, and information on prescription and over-the-counter medications. The mobile version is available at

m.medlineplus.gov



GET E-mail Updates

E-mail announcements contain links to new topics and sites on MedlinePlus along with other notices. You can sign up to receive general emails covering all health topics, or you can sign up to receive emails about specific topics.



Subscribe to RSS

Really Simple Syndication (RSS) provides notification when new content, press announcements and health news articles are published on MedlinePlus, without cluttering your inbox with e-mail messages.



Follow us on Twitter

Twitter provides MedlinePlus users with short, timely, and instantly updated health news and information. Join and follow at

twitter.com/medlineplus4you

Additional Resources

For further information, we recommend these additional resources:

- MedlinePlus Frequently Asked Questions
www.nlm.nih.gov/medlineplus/faq/faq.html
- Evaluating Internet Health Information: A Tutorial from the National Library of Medicine
www.nlm.nih.gov/medlineplus/webeval/webeval.html
- Guide to Healthy Web Surfing
www.nlm.nih.gov/medlineplus/healthywebsurfing.html
- Information for Librarians and Trainers
www.nlm.nih.gov/medlineplus/training/trainers.html

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 over 20 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: <ul style="list-style-type: none"> Links to publishers Selected full text articles Selected consumer health journals Links to MedlinePlus 	Value added: <ul style="list-style-type: none"> Drug information Medical encyclopedia Links to other Web resources Links to MEDLINE searches Spanish version Surgery videos Multiple languages



MedlinePlus Search Exercises

Search Example: Using the search box, identify some of the complications associated with diabetes.

Suggested Solution:

- Go to medlineplus.gov
- Type **diabetes complications** in the search box
- Click the **Go** button

- Click a topic of interest to you
- Review the information retrieved
 - If you selected a page on another Web site, close the pop-up window to return to MedlinePlus

- Click the **Health Topics** tab at the top of the page to prepare for the next search

Exercise 1: Using the search box, locate information on health literacy.

Suggested Solution:

Type	health literacy in the search box
Click	the Go button
Click	Health Literacy (National Library of Medicine)
Review	the information retrieved

Exercise 2: I heard that a skin condition called acanthosis nigricans can be associated with elevated insulin levels. What does it look like? Use the alphabetical search feature.

Suggested Solution:

Click	the Health Topics tab
Click	S
Click	<u>Skin Conditions</u> from the alphabetical list of topics
Click	<u>Specific Conditions</u> under Learn More
Click	<u>Acanthosis Nigricans</u> (Mayo Foundation for Medical Education and Research)
Review	the information retrieved and close the pop-up window

Exercise 3: Using the Health Topic demographics groups feature, locate information on breast cancer prevention and screening.

Suggested Solution:

Click	the Health Topics tab
Click	<u>Women</u> under demographic groups
Click	<u>Breast Cancer</u> from the alphabetical list of topics
Click	<u>Prevention/Screening</u> under Basics
Click	<u>Breast Cancer (PDQ): Prevention</u> NIH (National Cancer Institute)
Click	<u>Breast Cancer Prevention</u> to the left of the page
Review	the information retrieved and close the pop-up window
Click	<u>Breast Cancer (PDQ): Screening</u> NIH (National Cancer Institute)
Click	<u>Breast Cancer Screening</u> to the left of the page
Review	the information retrieved
	 Note that this information is also available in Spanish.
Close	the pop-up window

Exercise 4: Find information about HIV/AIDS and children. Next, E-mail the page to yourself.

Suggested Solution:

Click	the Health Topics tab
Click	A
Click	<u>AIDS</u> from the alphabetical list
Click	<u>Children</u> under For You

- Click [Children and HIV](#) (New Mexico AIDS Education and Training Center) under **Children**
- Review the information and close the pop-up window
- Click the **E-mail icon** near the top right of the page and follow the onscreen instructions
- Click the **Send email** button
- Review the email confirmation page and close the pop-up window

Exercise 5: Are there any side effects that patients taking Acebutolol should know about?

Suggested Solution:

- Click the **Drugs & Supplements** tab
- Click **A** under **Browse by generic or brand name**
- Click [Acebutolol](#) in the alphabetical list
- Scroll to the section [What side effects can this medication cause?](#)
- Review the information retrieved

Exercise 6: According to a recent survey conducted by researchers in Cleveland, Ohio, people living with HIV/AIDS commonly use the following herbs: Echinacea, Ginseng, Ginko, St. Johns Wort, and Yohimbe. Can these supplements interfere with prescribed medications? What is the scientific evidence for use of these drugs?

Suggested Solution:

- Click the **Drugs & Supplements** tab
- Click **All herbs and supplements**
- Click [Echinacea](#) in the alphabetical list
- Scroll to the “[Are there interactions with medications?](#)” section and review the information retrieved
-  Repeat these steps for: Ginseng American, Ginkgo, St. Johns Wort, and Yohimbe

Exercise 7: Using the Medical Encyclopedia, locate an image showing a normal and asthmatic bronchiole.

Suggested Solution:

- Click the Home link at the top left of the page.
- Click the Medical Encyclopedia link at the bottom of the home page
- Click **A** under **Browse by first letter of topic**

- Click Asthma from the alphabetical list
- Click Normal versus asthmatic bronchiole under **Images**
- Review the information retrieved

Exercise 8: Locate an organization that focus on health disparities.

Suggested Solution:

- Click the Home link
- Click the Organizations link at the bottom of the page
- Click topic under **Organizations** [next to: Also available arranged by topic]
- Click H
- Scroll to **Health Disparities**
- Click National Center on Minority Health and Health Disparities
- Review the information retrieved and close the pop-up window

Exercise 9: Find an interactive tutorial that teaches you how to evaluate health information on the Web.

Suggested Solution:

- Click **Videos & Cool Tools** tab
- Click **Evaluating Health Information** tab on the right of the page
- Click the **Start the tutorial** tab and follow the onscreen instructions
-  At the end of the tutorial, close the pop-up window.

Exercise 10: Check your health knowledge by using the calculators and quizzes section.

Suggested Solution:

- Click the **Videos & Cool Tools** tab
- Click a topic of choice under the **Calculators & Quizzes** section and follow the onscreen instructions
-  Click: All calculators & quizzes to expand the alphabetical list.
- Review the results and close the pop-up window

Exercise 11: Using the Health Topics Body Location/System feature, find the MedlinePlus Hypertension page and view the latest news. Next, view the Hypertension Interactive Tutorial.

Suggested Solution:

- Click the **Health Topics** tab
- Click **Blood, Heart, and Circulation** under Body Location/Systems

- Click [High Blood Pressure](#)
- Click [Latest News](#) under Basics
- Review a news article of your choice and click the browser's back button to return to the High Blood Pressure page
- Click [Hypertension Interactive Tutorial](#) under **Start Here**
- Click the **Start Interactive Tutorial** button

 At the end of the tutorial, close the pop-up window.

Exercise 12: Locate health information on a topic of your choice.

This page is intentionally blank.

ClinicalTrials.gov

ClinicalTrials.gov
A service of the U.S. National Institutes of Health

Home Search Study Topics Glossary

ClinicalTrials.gov is a registry of federally and privately supported clinical trials conducted in the United States and around the world. ClinicalTrials.gov gives you information about a trial's purpose, who may participate, locations, and phone numbers for more details. This information should be used in conjunction with advice from health care professionals. [Read more...](#)

► Search for Clinical Trials
Find trials for a specific medical condition or other criteria in the ClinicalTrials.gov registry. ClinicalTrials.gov currently has **97,030 trials** with locations in **174 countries**.

► Investigator Instructions
Get instructions for clinical trial investigators/sponsors about how to register trials in ClinicalTrials.gov. Learn about mandatory registration and results reporting requirements and US Public Law 110-85 (FDAAA).

► Background Information
Learn about clinical trials and how to use ClinicalTrials.gov, or access other consumer health information from the US National Institutes of Health.

Resources:
[Understanding Clinical Trials](#)
[What's New](#)
[Glossary](#)

Study Topics:
[List studies by Condition](#)
[List studies by Drug Intervention](#)
[List studies by Sponsor](#)
[List studies by Location](#)

 This site complies to the [HONcode standard](#) for trustworthy health information: [verify here](#).

clinicaltrials.gov

ClinicalTrials.gov

ClinicalTrials.gov provides regularly updated information about federally and privately supported clinical research in human volunteers, including the trial's purpose, who may participate, locations where trials are held, contact information, and whether or not the trial is currently recruiting participants. The database currently contains information on over 97,000 trials with locations in 174 countries.

clinicaltrials.gov

Searching ClinicalTrials.gov

Click Search for Clinical Trials on the home page to access the search page. The system defaults to the Basic Search screen (see below). Type your search term(s) in the search box provided and click the **Search** button.

Basic Search Screen

Click the **Advanced Search** tab, or the Advanced Search link below the search box, to search using more specific search criteria. For example, you can limit your search to disease or condition, outcome measures, sponsor, state or country of the trial, study type, age group of the participants, and much more. From the List Results screen, you can refine your search by adding more search terms, or click Display Options to select fields to display within your search results.

ClinicalTrials.gov
A service of the U.S. National Institutes of Health

Home Search Study Topics Glossary

Search

Basic Search Advanced Search Studies by Topic Studies on Map

Fill in any or all of the fields below.

Click on a label to the left for further explanation or read the [Help](#).

Search Terms: Search Help

Recruitment: All Studies

Study Results: All Studies

Study Type: All Studies

Targeted Search:

Conditions:

Interventions:

Outcome Measures:

Lead Sponsors: Exact Match

Sponsors: Exact Match

Study IDs:

Locations:

State 1: Optional

Country 1: Optional

State 2: Optional

Country 2: Optional

State 3: Optional

Country 3: Optional

Location Terms:

Additional Criteria:

Age Group: Child (birth-17) Adult (18-65) Senior (66+)

Phase: Phase I Phase II Phase III Phase IV

Funded By: NIH Other U.S. Federal Agency Industry University/Organization

Safety Issue: Has an outcome measure designated as a safety issue.

First Received: From To (MM/DD/YYYY)

Last Updated: From To (MM/DD/YYYY)

Advanced Search Screen

ClinicalTrials.gov																							
A service of the U.S. National Institutes of Health																							
List Results Refine Search Results by Topic Results on Map Search Details																							
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List Results Screen

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List Results Screen with Display Options

You may also browse ClinicalTrials.gov by condition (or disease), drug intervention, trial sponsor, and trial location.

Additional Resources

For further information, we recommend these additional resources:

- NLM Training: NLM Gateway and ClinicalTrials.gov
www.nlm.nih.gov/pubs/manuals/gwclintrials.pdf
- Prescription for Success: Consumer Health Information on the Internet
nnlm.gov/training/consumer/prescription/
- NLM's Consumer Health Databases (National Network of Libraries of Medicine)
nnlm.gov/training/consumer/nlm_databases/
- ClinicalTrials.gov Background Information and Other Consumer Health Information
clinicaltrials.gov/ct2/info



ClinicalTrials.gov Search Exercises

Search Example: Do any clinical trials focus on chronic conditions?

Suggested Solution:

- Go to clinicaltrials.gov
- Click **Search for Clinical Trials**

ClinicalTrials.gov
A service of the U.S. National Institutes of Health

Home Search Study Topics Glossary Search

ClinicalTrials.gov is a registry of federally and privately supported clinical trials conducted in the United States and around the world. ClinicalTrials.gov gives you information about a trial's purpose, who may participate, locations, and phone numbers for more details. This information should be used in conjunction with advice from health care professionals. [Read more...](#)

Resources:
[Understanding Clinical Trials](#)
[What's New](#)
[Glossary](#)

Study Topics:
[List studies by Condition](#)
[List studies by Drug Intervention](#)

Search for Clinical Trials

Find trials for a specific medical condition or other criteria in the ClinicalTrials.gov registry. ClinicalTrials.gov currently has **96,485** trials with locations in **174** countries.

- Type **chronic conditions** in the search box
- Click the **Search** button

ClinicalTrials.gov
A service of the U.S. National Institutes of Health

Home Search Study Topics Glossary Search

Basic Search Advanced Search Studies by Topic Studies on Map

Enter a word or phrase, such as the name of a medical condition or intervention.

Example: *Heart Attack AND Los Angeles*

chronic conditions Advanced Search Help

Search Tips:
Use AND (all upper case) to search for multiple terms. For example:
prostate cancer AND radiation
heart disease AND stroke AND California

- Review record(s) of your choice

List Results Refine Search Results by Topic Results on Map Search Details

Found 1385 studies with search of: **chronic conditions**

[Hide studies that are not seeking new volunteers.](#) [Display Options](#)

Rank	Status	Study
1	Active, not recruiting	Improving Medical Training for the Care of Chronic Conditions Condition: Diabetes Mellitus Interventions: Behavioral: Barriers to self-care; Behavioral: Diabetes Attitude Scale-3; Behavioral: Challenges; Behavioral: Interdisciplinary teamwork scale; Behavioral: Advantages of SMA; Behavioral: Direct Observation
2	Completed	Adjusting to Chronic Conditions Using Education Support and Skills Conditions: Anxiety; Depression Intervention: Behavioral: Adjusting to Chronic Conditions Using Education Support and Skills
3	Not yet	Adjusting to Chronic Conditions Using Education, Support, and Skills

- Click **Search** in the header box to prepare for the next search

ClinicalTrials.gov
A service of the U.S. National Institutes of Health

Home **Search** Study Topics Glossary Search

List Results Refine Search Results by Topic Results on Map Search Details

Found 1385 studies with search of: **chronic conditions**

Exercise 1: Locate all open clinical trial studies that focus on health literacy. Display only the studies that are seeking volunteers.

Suggested Solution:

Click	<u>Search for Clinical Trials</u>
Type	health literacy in the search box

- Click the **Search** tab
- Click the link Hide studies that are not seeking new volunteers at the top left of the page
- Review record(s) of your choice
- Click **Search** in the header bar to prepare for the next search

Exercise 2: Do any clinical trials focus on stroke among African American seniors?

Suggested Solution:

- Click the **Advanced Search** tab
- Type **african american** in the Search Terms box
- Type **stroke** in the Conditions box
- Click the box next to Senior (66+) under **Age Group**
- Click the **Search** button and review record(s) of your choice
- Click **Search** in the header bar to prepare for the next search

Exercise 3: Have the effects of *Atorvastatin*, a statin, been studied as a treatment for asthma?

Suggested Solution:

- Click the **Advanced Search** tab
- Type **asthma** in the Conditions box
- Type **atorvastatin** in the Interventions box
- Click the **Search** button and review record(s) of your choice
- Click **Search** in the header bar to prepare for the next search

Exercise 4: Find all clinical trials studying heart disease. Next, limit the results to minority women.

Suggested Solution:

- Click the **Advanced Search** tab
- Type **heart disease** in the Conditions box
- Click the **Search** button
- Click the **Refine Search** tab
- Type **minority women** in the Search Terms box
- Click the **Search** button and review record(s) of your choice
- Click **Home** in the header bar to prepare for the next search

Exercise 5: What should people consider before participating in a Clinical Trial? Next, review the definition of a double-blind study.

Suggested Solution:

Click	<u>Understanding Clinical Trials</u> on the right side of the page under Resources
Scroll to	What should people consider before participating in a trial?
Review	the information
Click	<u>Glossary</u> at the top of the page
Scroll	to double-blind study and view the definition
Click	<u>Home</u> in the header bar to prepare for the next search

Exercise 6: View recently added clinical trial studies.

Suggested Solution:

Click	<u>What's New</u> on the right side of the page
Click	[View studies first received in the] <u>last 14 days</u>
Review	record(s) of your choice
Click	<u>Search</u> in the header bar to prepare for the next search

Exercise 7: Using the Studies by Topic feature, find all clinical trials located in your state.

Suggested Solution #1:

Click	the <u>Studies by Topic</u> tab
Click	<u>Alphabetic (A-Z)</u> under Locations
Click	<u>U</u> (for United States)
Click	your state
Review	record(s) of your choice
Click	<u>Search</u> in the header bar to prepare for the next search

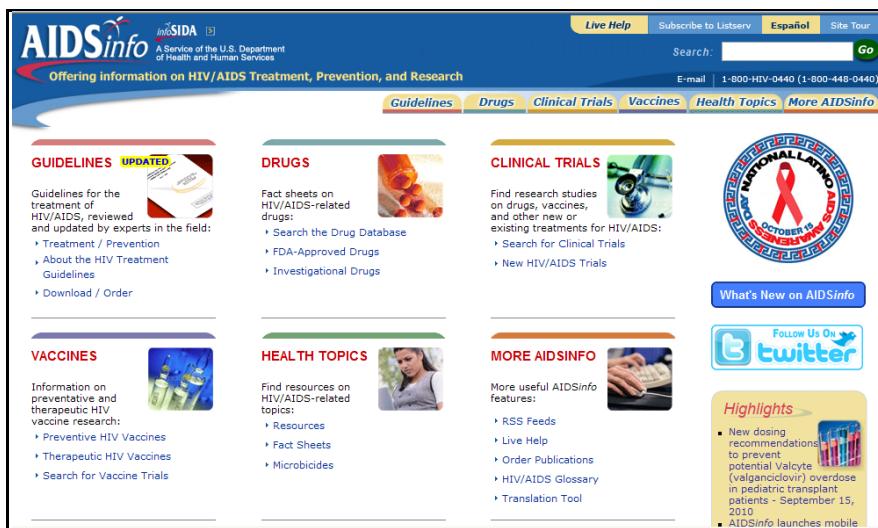
Suggested Solution #2:

Click	the <u>Results on Map</u> tab
Click	the United States on the map
Click	your state on the map or click the <u>[studies]</u> link for your state in the alphabetical list below the map
Click	<u>Search</u> in the header bar to prepare for the next search

Exercise 8: Locate a study of your choice.

This page is intentionally blank.

AIDSinfo

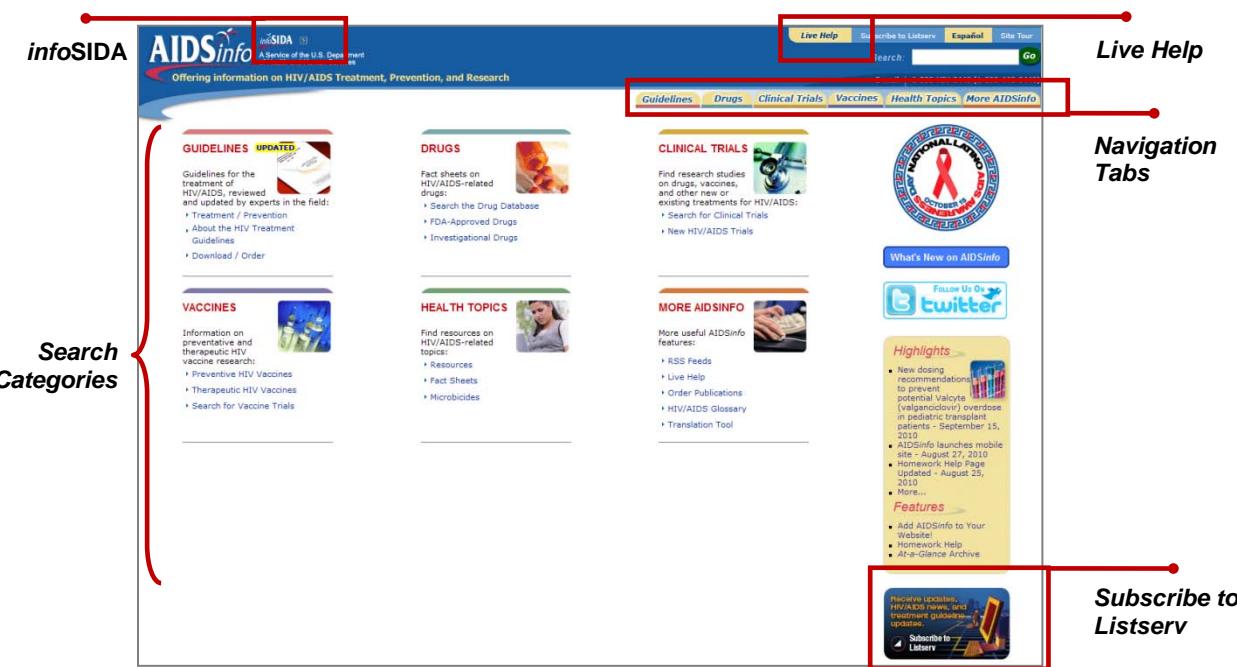


The screenshot shows the homepage of AIDSinfo, a service of the U.S. Department of Health and Human Services. The top navigation bar includes links for 'Live Help', 'Subscribe to Listserv', 'Español', and 'Site Tour'. A search bar is available, along with an 'E-mail' link and the phone number '1-800-HIV-0440 (1-800-448-0440)'. The main content area is divided into several sections: 'GUIDELINES' (with a 'UPDATED' badge), 'DRUGS', 'CLINICAL TRIALS', 'VACCINES', 'HEALTH TOPICS', and 'MORE AIDSINFO'. Each section contains a brief description and a list of links. A sidebar on the right features a 'What's New on AIDSinfo' section with a 'Follow Us On Twitter' link and a 'Highlights' box. A circular graphic for 'NATIONAL LATINO AIDS MONTH OCTOBER 2010' is also present.

aidsinfo.nih.gov

AIDSinfo

AIDSinfo is a Department of Health and Human Services Web site that provides the latest federally approved treatment guidelines for health care professionals as well as additional information on treatment, prevention and research for both health care providers and consumers. A comprehensive Spanish version (infoSIDA) is also available.



The screenshot shows the AIDSinfo homepage with several key features highlighted:

- Live Help:** A red box highlights the "Live Help" button in the top right corner.
- Navigation Tabs:** A red box highlights the navigation tabs at the top: Guidelines, Drugs, Clinical Trials, Vaccines, Health Topics, and More AIDSinfo.
- Search Categories:** A red bracket on the left highlights the "GUIDELINES", "DRUGS", "VACCINES", "HEALTH TOPICS", and "MORE AIDSINFO" sections.
- Subscribe to Listserv:** A red box highlights the "Subscribe to Listserv" button in the bottom right corner of the sidebar.

<http://aidsinfo.nih.gov>

Organization and Features

AIDSinfo is organized around six main categories:

- **Guidelines**—federally approved HIV treatment and prevention guidelines for HIV infection and AIDS-related illnesses, including the prevention of HIV transmission from occupational exposure, mother-to-child transmission during pregnancy, and prevention and treatment of HIV-related opportunistic infections
- **Drugs**—records for FDA-approved and investigational HIV/AIDS-related drugs: Patient, Health Professional, and Spanish versions
- **Clinical Trials**—information on federally and privately funded clinical trials evaluating experimental drugs and other therapies for adults and children at all stages of HIV infection

- **Vaccines**—information on preventive and therapeutic HIV/AIDS vaccine research
- **Health Topics**—resources for both patients and health care providers on HIV/AIDS-related topics

Additional features offered under **More AIDSinfo** include:

- **RSS Feeds**—updates from the weekly AIDSinfo newsletter and the drug database
- **Publications**—print, electronic, and PDF versions of AIDSinfo publications (single copies of print publications are free)
- **At-a-Glance Newsletter Archives**—database of back issues of AIDSinfo's electronic newsletter
- **Live Help**—confidential one-on-one assistance via the Internet from health information specialists
- **Homework Help**—resources and references for learning and writing papers about HIV and AIDS for school projects
- **HIV/AIDS Glossary**—definitions of HIV/AIDS-related terms in English and Spanish
- **PDA Tools**—treatment guidelines for Pocket PC (MS-Windows-based) and Palm PDAs
- **Translation Tool**—English and Spanish translations of HIV-related terms

Searching AIDSinfo

To search AIDSinfo, you can type your search term in the search box at the top of any AIDSinfo page or search directly for the type of information you want by clicking the appropriate navigation tab:



AIDSinfo Drugs Database

Search on drug name, drug class, or approval status, or search alphabetically.

AIDSinfo Clinical Trials Database

Search on words, conditions, drugs, or locations, or browse by trial category.

Staying Connected



Mobile Version

AIDSinfo offers a mobile site that allows users to access its resources and information for phones and other mobile devices.

m.aidsinfo.nih.gov



Follow us on Twitter

Twitter provides AIDSinfo users with short, timely, and instantly updated health news and information on HIV/AIDS treatment, prevention, and research.

twitter.com/aidsinfo/



GET E-mail Updates

AIDSinfo's weekly e-newsletter, At-a-Glance, provides notice of Web site updates, HIV/AIDS news, and treatment guideline updates.

aidsinfo.nih.gov/Other/subscribe.aspx



Subscribe to RSS

AIDSinfo offers information from the AIDSinfo weekly newsletter and Drug Database through RSS feeds.

aidsinfo.nih.gov/Other/rss.aspx

Additional Resources

For further information, we recommend these additional resources:

- AIDSinfo Brochure
aidsinfo.nih.gov/contentfiles/ai_brochure.pdf
- AIDSinfo Workbook
nnlm.gov/training/consumer/nlm_databases/chdatabases_aids.doc
- AIDSinfo Glossary
aidsinfo.nih.gov/ContentFiles/GlossaryHIV-relatedTerms_FifthEdition_en.pdf
- AIDSinfo Glossary Spanish version (Glosario del VIH/SIDA)
aidsinfo.nih.gov/ContentFiles/SpanishGlossary_sp.pdf
- *infoSIDA* (Spanish AIDSinfo Web site)
aidsinfo.nih.gov/infoSIDA/

AIDSinfo Search Exercises



Search Example: Locate the latest guidance on HIV testing, counseling, and referral.

Suggested Solution:

- Go to aidsinfo.nih.gov
- Click **GUIDELINES**

- Click Revised Guidelines for Counseling, Testing, and Referral under **Testing** in the menu bar to the left

- Click the link HTML Version (1 KB) to open and review the document

- Review the document and close the CDC window

The screenshot shows the CDC MMWR website. The header includes the CDC logo, a search bar, and a 'Health Topics A-Z' link. The main title of the document is 'Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings'. Below the title, it says 'Prepared by' followed by a list of authors: Bernard M. Branson, MD¹; H. Hunter Handfield, MD²; Margaret A. Lange, MPH³; Robert S. Janssen, MD¹; Allan W. Taylor, MD¹; Sheri B. Lysy, MD¹; and Jil E. Clark, MPH². There are two small footnotes: ¹Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (proposed) and ²Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (proposed) and University of Washington, Seattle, Washington. The document is dated September 22, 2006, and is MMWR 55(38). The summary states: 'These recommendations for human immunodeficiency virus (HIV) testing are intended for all health-care providers in the public and private sectors, including those working in hospital emergency departments, urgent care clinics, outpatient services, substance abuse treatment clinics, public health clinics, community clinics, correctional health-care facilities, and primary care settings. The recommendations do not HIV testing in health-care settings only. They do not modify existing guidelines concerning HIV counseling, testing, and referral for persons at high risk for HIV infection.' The document is 12 pages long.

Search Exercises: Guidelines Category

Exercise 1: Locate guidelines for the use of antiretroviral therapy for the treatment of HIV-1 infected pregnant women. Compare the current guidelines to the guidelines from 2008.

Suggested Solution:

Click	Guidelines tab
Click	<u>Perinatal Guidelines</u> under Maternal-Child Transmission in the menu bar to the left
Click	<u>PDF Version (1.2 MB)</u>
Review	the document and close the pop-up window
Click	<u>Previous Versions</u> under Archives in the menu bar to the left
Scroll to	the Perinatal Guidelines section of the page
Click	the PDF link for “Tuesday, July 08, 2008”
Review	the document and close the pop-up window

Exercise 2: Review the most recent Guidelines News topic. Next, subscribe to the AIDSinfo Listserv (optional).

Suggested Solution:

Click	the Guidelines tab
Click	the first topic in the Guidelines News box at the top right of the page
Review	the information and close the pop-up window or click the browser's back button to return to the Clinical Guidelines Portal

Click	<u>Subscribe to Listserv</u> at the top right of the page
Follow	the directions for subscribing to the Listserv

Exercise 3: Perform a Guidelines search of your choice. Return to the AIDSinfo home page by clicking the AIDSinfo logo in the top left corner of the page.

Search Exercises: Drug Category

Exercise 4: What class of HIV/AIDS drug is *FTC*? Are there any other names for it? Compare the patient version of the record to the health professional version.

Suggested Solution:

Click	the Drugs tab at the top of the page
Type	FTC in the “Drug Name” search box under Search the Drug Database
Click	the Search button
Click	<u>FTC (Emtriva)</u> under FDA-approved Drugs
	 The page defaults to the Patient Version
Review	the information in the Patient Version
Click	Health Professional Version and review the information
	 Note the difference in the detail of information given in the health professional version versus that given in the patient version.

Exercise 5: Should *tenofovir DF* be taken with food? Use the alphabetical search feature.

Suggested Solution:

Click	the Drugs tab
Click	<u>T</u> under Alphabetical Search
Click	Tenofovir disoproxil fumarate
Click	Health Professional Version
	 Detailed Information is provided only in the health professional version.
Scroll to	the <u>Drug and Food Interactions</u> section and review the information

Exercise 6: The FDA recently approved *Intelence*, a non-nucleoside reverse transcriptase inhibitor (NNRTI). What are the most common side effects associated with *Intelence*?

Suggested Solution:

Click	the Drugs tab
Select	Non-nucleoside Reverse Transcriptase Inhibitors from the Drug Class drop down menu
Select	FDA-approved from the Drug Approved drop down menu
Type	Intelence in the Drug Name search box
Click	the Search button
Click	Intelence (Intelence)
Review	the information in the Possible Side Effects section

Search Exercises: Clinical Trials Category

Exercise 7: Are there any studies investigating kidney complications of HIV/AIDS?

Suggested Solution:

Click	the Clinical Trials tab
Type	kidney disease in the search box
Click	the Search button
Review	a study or studies of your choice and close the ClinicalTrials.gov window

Exercise 8: Using the quick search feature, find all HIV/AIDS trials focused on older adults.

Suggested Solution:

Click	the Clinical Trials tab
Click	the Quick Search tab
Click	Specific Populations
Click	Older Adults
Review	a study or studies of your choice and close the ClinicalTrials.gov window

Exercise 9: Are there any interventional studies focusing on the new drug *Kaletra* for children?

Suggested Solution:

Click	the Clinical Trials tab
Click	the Advanced Search tab
Type	Kaletra in the Search Term box
Select	Interventional Studies from the drop-down menu under <u>Study Type</u>
Click	Child (birth-17) under <u>Age Group</u>
Click	the Search button
Review	a study or studies of your choice

DIRLINE

Directory of Health Organizations
SIS Specialized Information Services

DIRLINE PDA Access SIS Home | About Us | Site Map & Search | Contact Us

[SIS Home](#) >

Search DIRLINE

Search **Clear**
(e.g. aging chronic diseases, scleroderma)

Search: all of the words any of the words exact phrase

Fields: (if none checked, all fields will be searched.)
 Organization name or acronym
 MeSH Headings/Keywords

Select records containing:
 Only organizations with toll-free numbers
 Only organizations with services for the hearing impaired

Search **Browse the Index**

Health Hotlines
Toll-free numbers for over 300 organizations

 **Get the App**

Other NLM Resources
MedlinePlus®
PubMed
NLM Gateway
LocatorPlus

Support Pages
Help
Fact Sheet
Disclaimer
A to Z List of Health Organizations

dirline.nlm.nih.gov

DIRLINE

DIRLINE is the National Library of Medicine's online database containing location and descriptive information about a wide variety of information resources including organizations, research resources, projects, and databases concerned with health and biomedicine. This information may not be readily available in bibliographic databases. Each record may contain information on the publications, holdings, and services provided.



The screenshot shows the DIRLINE website with a search interface on the left and a sidebar on the right. The sidebar features a section for 'Health Hotlines' with a red box around it, and a link to 'A-Z List of Health Organizations' at the bottom.

Health Hotlines:
Search or print toll-free numbers for over 300 organizations

A-Z List of Health Organizations

dirline.nlm.nih.gov

DIRLINE contains over 8,500 records and focuses primarily on health and biomedicine, although it provides limited coverage of some other special interests. Topics include HIV/AIDS, maternal and child health, most diseases and conditions including genetic and other rare diseases, health services research, and technology assessment. The information resources fall into many categories, including:

- Federal, state, and local government agencies
- Information and referral centers
- Professional societies
- Self-help groups and voluntary associations

- Academic and research institutions and their programs
- Information systems and research facilities

Searching DIRLINE

Search DIRLINE using subject words (such as the name of a disease or condition, or the name or location of a resource). Keep the search simple to maximize retrieval. Refine your search by including Medical Subject Headings (MeSH®). MeSH consists of sets of specific terms developed by the NLM to enhance searching.

Click [A-Z List of Health Organizations](#) on the home page to browse for a health organization:



The screenshot shows the 'Directory of Health Organizations' page from SIS Specialized Information Services. The top navigation bar includes 'DIRLINE PDA Access', 'SIS Home', 'About Us', 'Site Map & Search', and 'Contact Us'. Below the navigation is a breadcrumb trail: 'Dirline Home >'. The main title is 'A to Z List of Health Organizations'. Below the title is a horizontal menu with links for each letter from A to Z, plus '0-9'. A list of organization names is displayed, each preceded by a blue triangle icon and a link. The organizations listed are: A Chance to Grow, A-T Medical Research Foundation, A. Philip Randolph Institute - American Federation of Labor and Congress of Industrial, A.J. Muste Memorial Institute, AABB, AACC International, AARP, ABC Quilts, and ABI DATA.

Additional Resources

For further information, we recommend these additional resources:

- DIRLINE Fact Sheet
www.nlm.nih.gov/pubs/factsheets/dirlinfs.html
- Prescription for Success: Consumer Health Information on the Internet
(National Network of Libraries of Medicine)
www.nnlm.gov/training/consumer/prescription
- Medical Subject Headings (MeSH)
nlm.nih.gov/mesh/meshhome.html



DIRLINE Search Exercises

Search Example: Find health information resources that are located in your state.

Suggested Solution:

- Go to dirline.nlm.nih.gov
- Type your state name in the search box (example: **north carolina**)
- Click the **Search** button

The screenshot shows the 'Directory of Health Organizations' search results for 'north carolina'. The search bar contains 'north carolina' with a red box around it. Below the search bar are search options: 'all of the words' (radio button selected), 'any of the words', and 'exact phrase'. There are also fields for 'Organization name or acronym' and 'MeSH Headings/Keywords'. On the right, there are 'Health Hotlines' and 'Get the App' sections.

- Review record(s) of your choice
- Click the **New Search** button on the left of the page to prepare for the next search

The screenshot shows the 'DIRLINE Search Results' page for 'north carolina'. The search bar contains 'north carolina'. The results list 1 through 20 of 141 items, sorted in relevancy ranked order. The first few items are:

- 1 North Carolina Biotechnology Center
- 2 North Carolina Museum of Natural Science - Department of Environment and Natural Resources - North Carolina State Government
- 3 North Carolina State Highway Patrol - North Carolina Department of Crime Control and Public Safety
- 4 North Carolina Utilities Commission
- 5 North Carolina National Guard - North Carolina Department of Crime Control and Public Safety
- 6 Pesticide Section - Food and Drug Protection Division - North Carolina Department of Agriculture and Consumer Services - North Carolina State Government

Exercise 1: Find records for organizations that provide information on health promotion.

Suggested Solution:

Type	health promotion in the search box
	 Be sure to space after each search term. Remember—Boolean operators do not work in DIRLINE.
Click	the Search button
Review	record(s) of your choice
Click	the New Search button on the left of the page to prepare for the next search

Exercise 2: Find records for the various Centers for Disease Control and Prevention (CDC) HIV/AIDS programs. Save the records that are of interest to you.

Suggested Solution:

Type	cdc hiv aids in the search box
Click	the Search button
Click	the checkbox to the left of record(s) of your choice
Click	the Save Checked Items button on the left
Click	the Display Saved Items button to review the record(s)
Click	the New Search button on the left to prepare for the next search

Exercise 3: Find diabetes-related organizations. Next, limit the search to organizations with services for the hearing impaired.

Suggested Solution:

Type	diabetes in the search box
Click	the Search button
Review	record(s) of your choice
Click	the Modify Search button on the left of the page
Click	the checkbox for <u>Only organizations with services for the hearing impaired</u> under “ Select records containing: ”
Click	the Search button
Review	record(s) of your choice
Click	the New Search button on the left to prepare for the next search

Exercise 4: Use the Browse Index feature to identify the number of organizations that offer information on environmental health. Sort the records in descending order.

Suggested Solution:

Click	the Browse the Index button
Type	environmental in the search box
Click	the Search button
Click	the checkbox for the index term(s) of your choice
Click	the Select button above the table
Click	the Sort button on the left
Click	Descending and then the Sort button
Review	record(s) of your choice

More Health Information Resources

Genetics Home Reference™

Genetics Home Reference is the National Library of Medicine's Web site for consumer information about genetic conditions and the genes or chromosomes responsible for those conditions. Content on the site is reviewed annually by experts in human genetics. Expert reviewers perform a comprehensive review of each condition, gene, gene family, and chromosome summary before it is posted to the site, and with each substantial revision thereafter.

ghr.nlm.nih.gov

Organization and Features

Links on the left side of the page provide access to a list of information recently added to the site (**What's New**), information on **Newborn Screening**, and additional information (**In the Spotlight**) including **Learning Activities** to help users learn about human genetics. Other information is provided in the following categories:

- **Genetic Conditions:** Genetic summaries of over 550 health conditions, diseases, and syndromes
- **Genes:** Summaries of over 750 genes, health effects of genetic differences, and gene families
- **Chromosomes:** Chromosomes, mitochondrial DNA, and associated health conditions
- **Handbook:** Information about mutations, inheritance, genetic counseling, genetic testing, genomic research, and more
- **Glossary:** Medical and genetics definitions
- **Resources:** Links to PubMed, MedlinePlus, and other genetic information/organizations

Disclaimer: The resources on this Web site should not be used as a substitute for professional medical care or advice. For information about a personal genetic disease, syndrome, or condition, users should consult with a qualified health care professional.

Multi-Cultural Resources for Health Information

Multi-Cultural Resources for Health Information provides selected links to multi-cultural Internet resources with a focus on addressing cultural and linguistic competency in health care.

<http://sis.nlm.nih.gov/outreach/multicultural.html>

Multi-Cultural Resources for Health Information includes links to information in the following areas:

- Cultural Competency
- Dictionaries, Glossaries, and Online Translation Tools
- Health Literacy
- Health Resources in Multiple Languages
- Interpreting in Health Care
- Law, Policy, and Standards
- Limited English Proficiency
- Multicultural Research
- Organizations and Portals
- Refugee Health Portals

Additional Resources

For further information, we recommend these additional resources:

- Minority Health – Specific Population Groups:
sis.nlm.nih.gov/outreach/minorityhealth.html

Women's Health Resources

Women's Health Resources was created in partnership between the National Library of Medicine Office of Outreach and Special Populations and the National Institutes of Health Office of Research on Women's Health (ORWH). The purpose of the site is to present topics pertaining to women's health collected by NLM information products to support the mission of the ORWH to promote research in the field.

Navigation Toolbar

A-Z Index and Search Box

sis.nlm.nih.gov/outreach/whrhome.html

Organization and Features

The Women's Health Resources home page is organized into six areas: Health Topics, News & Events, Highlights, Featured Topic, NIH Priorities, and Funding. An A to Z Index is available for easy searching.

Additional Resources

For further information, we recommend these additional resources:

- Office of Research on Women's Health
orwh.od.nih.gov/
- Women's Health Initiative
www.nhlbi.nih.gov/whi/index.html

This page is intentionally blank.

9

NIHSeniorHealth

Skip Navigation Contrast: on off Speech: on off Help



NIH SeniorHealth

Home | Site Index | Contact Us

Welcome to NIHSeniorHealth. This easy-to-use website features basic health and wellness information for older adults from the National Institutes of Health. Use the buttons at the top of each page to make the text bigger, change text color, or hear the text read aloud.



Find a health 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](#) [X](#) [Y](#) [Z](#)

nihseniorhealth.gov

NIHSeniorHealth

NIHSeniorHealth is a Web site for older adults designed for maximum accessibility to aging-related health information. The site was developed by the National Institute on Aging and the National Library of Medicine, both part of the National Institutes of Health (NIH).

Text Size: + - Contrast: on off Speech: on off

NIH SeniorHealth

Welcome to NIHSeniorHealth. This easy-to-use website features basic health and wellness information for older adults from the National Institutes of Health. Use the buttons at the top of each page to make the text bigger, change text color, or hear the text read aloud.

Find a health 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 X Y Z**

Categories

- [Bones and Joints](#)
- [Cancer](#)
- [Diseases and Conditions](#)
- [Healthy Aging](#)
- [Heart and Lungs](#)
- [Memory and Mental Health](#)
- [Treatments and Therapies](#)
- [Vision and Hearing](#)
- [All Topics A-Z](#)

Featured Topic

Peripheral Arterial Disease

Exercise Stories **Health Videos**

nihseniorhealth.gov

Senior-friendly features of NIHSeniorHealth include:

- ▶ Short, easy-to-read segments of information
- ▶ Simple navigation
- ▶ Special buttons at the top of the page to:
 - Increase text size
 - Change color contrast
 - Turn on “Speech” to have the text read (requires the Flash Plugin or Adobe Macromedia Flash Player)

Additional Resources

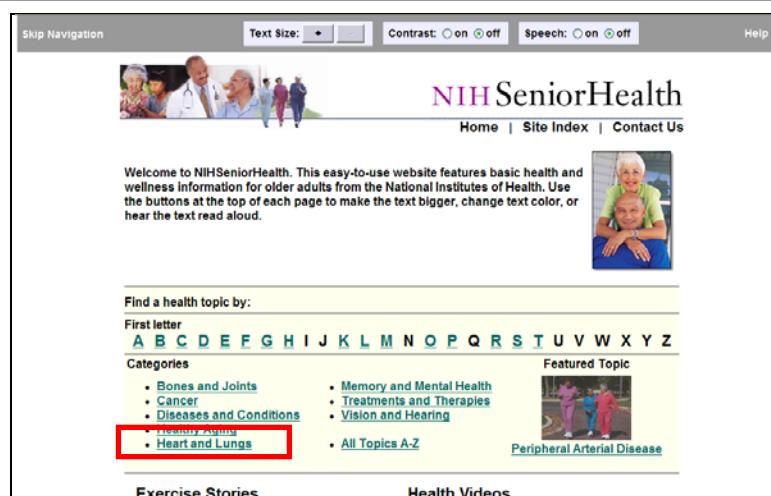
For further information, we recommend these additional resources:

- ▶ Help Page: nihseniorhealth.gov/accentHelp.html

NIHSeniorHealth Search Exercises

Search Example: Find information on causes and risk factors associated of a heart attack.

- ▶ Go to nihseniorhealth.gov
- ▶ Click Heart and Lungs under Categories



Skip Navigation Text Size: + - Contrast: on off Speech: on off Help

NIH SeniorHealth

Welcome to NIH SeniorHealth. This easy-to-use website features basic health and wellness information for older adults from the National Institutes of Health. Use the buttons at the top of each page to make the text bigger, change text color, or hear the text read aloud.

Home | Site Index | Contact Us

Find a health 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 X Y Z

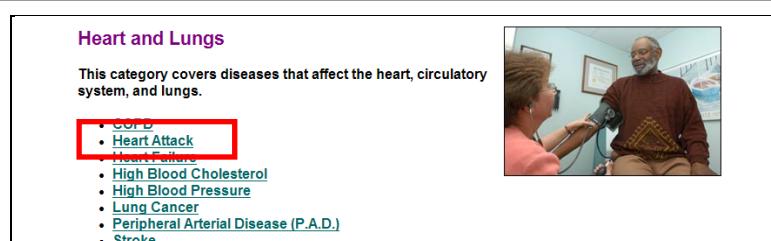
Categories:

- Bones and Joints
- Cancer
- Diseases and Conditions
- Disability Aids
- **Heart and Lungs** (highlighted by a red box)
- Memory and Mental Health
- Treatments and Therapies
- Vision and Hearing
- All Topics A-Z

Featured Topic: Peripheral Arterial Disease

Exercise Stories Health Videos

- ▶ Click **Heart Attack**



Heart and Lungs

This category covers diseases that affect the heart, circulatory system, and lungs.

• **Heart Attack** (highlighted by a red box)



• CORD

• Heart Failure

• High Blood Cholesterol

• High Blood Pressure

• Lung Cancer

• Peripheral Arterial Disease (P.A.D.)

• Stroke

- ▶ Click Causes and Risk Factors under Table of Contents



Heart Attack

Table of Contents

• **What is a Heart Attack?** (highlighted by a red box)

• Causes and Risk Factors

• Diagnosis and Treatment

• Life After a Heart Attack

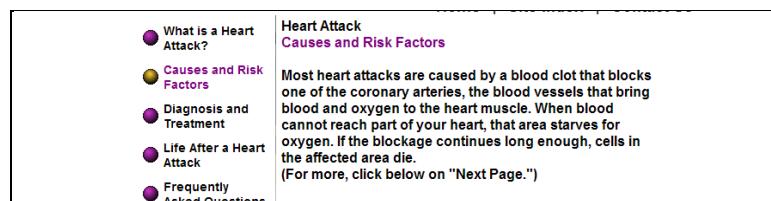
• Frequently Asked Questions

• Videos

• MedlinePlus - more information on Heart Attack

• Printer friendly version

- ▶ Review the information and close the NIH window



What is a Heart Attack?

Causes and Risk Factors

Diagnosis and Treatment

Life After a Heart Attack

Frequently Asked Questions

Heart Attack Causes and Risk Factors

Most heart attacks are caused by a blood clot that blocks one of the coronary arteries, the blood vessels that bring blood and oxygen to the heart muscle. When blood cannot reach part of your heart, that area starves for oxygen. If the blockage continues long enough, cells in the affected area die. (For more, click below on "Next Page.")

- ▶ Click the **Home** at the top to prepare for the next search



Skip Navigation Text Size: + - Contrast: on off Speech: on off Help

National Heart, Lung, and Blood Institute

NIH SeniorHealth

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What is a Heart Attack? Heart Attack Causes and Risk Factors

Exercise 1: Using the alphabetical search feature locate information on how to talk with your doctor about health issues.

Suggested Solution:

Click	I under First letter
Click	<u>Talking with Your Doctor</u>
Review	the information of your choice
Click	Home at the top of the page to prepare for the next search

Exercise 2: View a video on how to prevent type 2 diabetes.

Suggested Solution:

Click	<u>health videos</u> under Health Videos
	Note: the photo is also hyperlinked
Click	<u>Diabetes</u> under Videos
Click	<u>Preventing Type 2 Diabetes</u> [Click to watch this video] under Diabetes
	 The video will open in a separate window
Click	the Play tab and follow the onscreen instructions
Click	Home at the top of the page to prepare for the next search

Exercise 3: Increase the text size. Next, locate treatment options for breast cancer.

Suggested Solution:

Click	the plus (+) button at the top of the page next to Text Size
Click	<u>Cancer</u> under Catergories
Click	<u>Breast Cancer</u>
Click	<u>Treatment and Research</u>
Review	the information
	 This information can also be found in “ Frequently Asked Questions
Click	Home at the top of the page to prepare for the next search

Exercise 4: Locate information on a topic of your choice.

This page is intentionally blank.

Introduction to the NLM Environmental Health and Toxicology Resources



The screenshot shows the homepage of the Environmental Health & Toxicology website. The header features the U.S. Department of Health & Human Services logo, the Environmental Health & Toxicology logo with "SPECIALIZED INFORMATION SERVICES", and the National Library of Medicine (NLM) logo. The top navigation bar includes links for "SIS Home", "About Us", "Site Map & Search", and "Contact Us".

The main content area has a large image of a globe with trash on it, with the text "Your Environment and Your Health" overlaid. To the left is a sidebar with links for "Find Information About...", "Especially For", "Search TOXNET® Databases", "Other Professional Resources", "Resources for the Public", "Enviro-Health Links", "Guides & Tutorials", and "Quick Tours".

Below the sidebar are sections for "Search Our Web Site" (with a search bar and placeholder "(e.g. climate change)"), "A to Z Index of Resources" (with a grid of letters A through Z), and "About TEHIP" (with links to "Toxicology & Environmental Health Information Program", "TEHIP Quick Tour", and "Contact Us: Provide Feedback").

The central content area includes sections for "For Information About..." (with "Household Products Database" and "Hazardous Substances Data Bank"), "Toxicology Tutorials" (with an icon of books), and "In the Spotlight" (with links to "Drug Information Portal", "Pillbox BETA", "LactMed", "Haz-Map", and "Enviro-Health Links").

On the right side, there are sections for "Stay Connected" (with links to "Join the Listserv", "Subscribe to RSS", "Follow us on Twitter", and "Bookmark and share") and "News & Events" (with links to "SIS News" and "Calendar of Events").

tox.nlm.nih.gov

The NLM Environmental Health and Toxicology Portal

The NLMs **Environmental Health and Toxicology Portal** provides a starting point for seeking reliable information on toxicology, hazardous chemicals, environmental health, and toxic releases.

Find Information by Topic & Intended Audience





Search all TOXNET Databases

sis.nlm.nih.gov/enviro.html

Browse the easily navigable site by topic or audience. Explore related resources using the **A to Z Index of Resources**. The **Other Professional Resources** include database descriptions, fact sheets, a list of NLM databases and electronic resources. You can also search all TOXNET databases from this page.

Additional Resources

For further information, we recommend these additional resources:

- ▶ Getting the Most from SIS's Environmental Health and Toxicology Resources
sis.nlm.nih.gov/getthemostfromsis.html
- ▶ NLMs Environmental Health and Toxicology Resources Quick Tour
sis.nlm.nih.gov/enviro/captivate/tehipoverview.htm
- ▶ Publications and Reference Materials
sis.nlm.nih.gov/enviro/enviropubs.html

Staying Connected



Join the Toxicology and Environmental Health Listserv

Keep informed about new and noteworthy environmental health and toxicology resources, services and outreach activities from the National Library of Medicine's (NLM) Division of Specialized Information Services (SIS).

sis.nlm.nih.gov/enviro/envirolistserv.html



Subscribe to RSS

Really Simple Syndication (RSS) provides notification when new content and press announcements are published in NLM's environmental health and toxicology portal.

sis.nlm.nih.gov/rss/sisnewsfeed.rss



Follow us on Twitter

Twitter provides NLMs environmental health and toxicology portal users with short, timely, and instantly updated news and information.

twitter.com/NLM_SIS

Drugs and Dietary Supplements Suite

The **Dietary Supplements Labels Database** contains information from the labels of over 4,000 brands of dietary supplements in the marketplace, including online stores and practitioners, and provides direct links to pertinent health information, fact sheets, research findings and on-going clinical studies at the National Institutes of Health (NIH).

**Browse
Products,
Active
Ingredients, &
Manufacturers:**

Search box

Dietary Supplements Labels Database
brands, ingredients, and references

[Search](#) [Advanced Search](#)

[Home](#) | [About](#) | [FAQ](#) | [Glossary](#) | [Recalls](#) | [Related Resources](#) | [Contact](#) | [Help](#)

Products

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

Active Ingredients

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

Manufacturers

- All Manufacturers

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

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

- Uses in humans
- Adverse effects
- Mechanism of action

The Database can be searched by brand names, uses noted on product labels, specific active ingredients, and manufacturers.

[Recalls](#) from the U.S. Food and Drug Administration (FDA) and [enforcement actions](#) from the Federal Trade Commission (FTC) related to specific ingredients and supplement brands have also been provided.

[H1N1 Fraudulent Products](#)

Fraudulent H1N1 Flu Products 

dietarysupplements.nlm.nih.gov

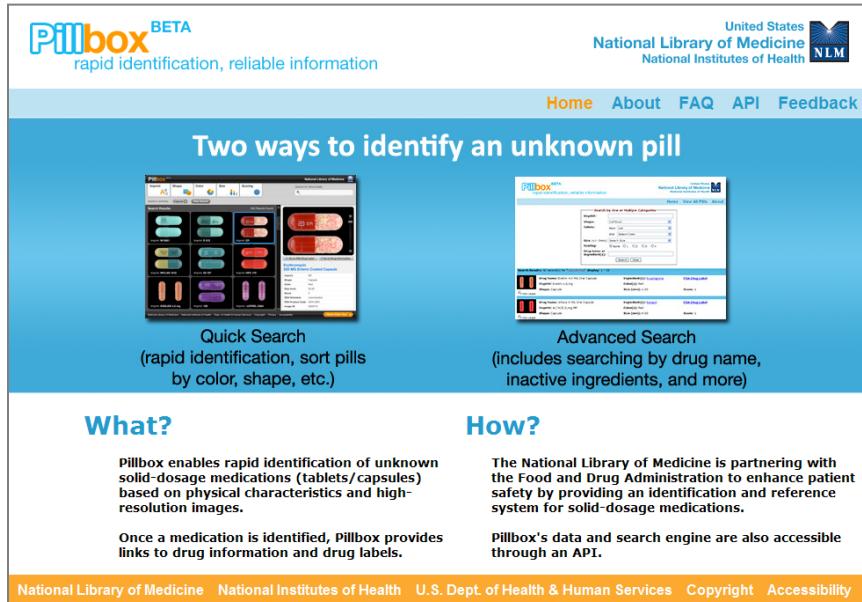
Features include a glossary, Warnings and Recalls from the U.S. Food and Drug Administration, and links to other NLM databases such as MedlinePlus and PubMed for further information including that on the characteristics of ingredients and the results of research pertaining to them.

NLM's **Drug Information Portal** provides current information on over 17,000 selected drugs from their entry into clinical trials through entry into the market place. Information includes consumer health, clinical trials, AIDS-related drug information, MeSH® pharmacological actions, PubMed biomedical literature.

druginfo.nlm.nih.gov

Resources include summaries tailored to various audiences, NLM search systems useful in searching for a drug, NLM research resources, resources organized by drug audience and class, and other NIH and government resources such as FDA and CDC. Resources are shown as links at the top of the page.

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 medication. This system is primarily for emergency physicians, first responders, Poison Control Center staff, and concerned citizens.



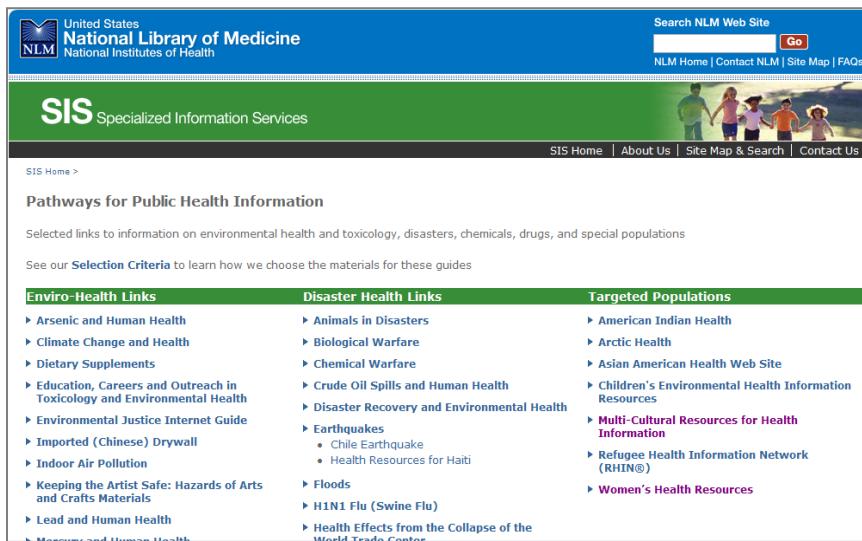
The screenshot shows the Pillbox BETA website. At the top, the logo 'Pillbox BETA' is displayed with the tagline 'rapid identification, reliable information'. To the right, the 'United States National Library of Medicine National Institutes of Health' logo is shown with the 'NLM' monogram. The top navigation bar includes links for 'Home', 'About', 'FAQ', 'API', and 'Feedback'. Below the navigation, a main title 'Two ways to identify an unknown pill' is centered. Two search options are presented: 'Quick Search' (rapid identification, sort pills by color, shape, etc.) and 'Advanced Search' (includes searching by drug name, inactive ingredients, and more). The 'What?' section describes the service as enabling rapid identification of unknown solid-dosage medications based on physical characteristics and high-resolution images. It also mentions that once identified, links are provided to drug information and drug labels. The 'How?' section states that 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. It also notes that Pillbox's data and search engine are accessible through an API. At the bottom of the page, a footer bar contains links for 'National Library of Medicine', 'National Institutes of Health', 'U.S. Dept. of Health & Human Services', 'Copyright', and 'Accessibility'.

pillbox.nlm.nih.gov

Once a solid dosage form has been identified, additional information is provided, including brand/generic name, ingredients, the National File identification number, and links to other NLM drug information resources.

Enviro-Health Links

Enviro-Health Links, available from the NLM Environmental Health and Toxicology Portal, is a list of links to Internet resources on toxicology and environmental health issues of recent special interest. All resources are evaluated and selected according to specific criteria. From the Environmental Health and Toxicology Portal, click the Enviro-Health Links tab to the left of the page.



The screenshot shows the SIS homepage with a green header bar. The header bar contains the NLM logo, a search bar with the placeholder 'Search NLM Web Site', and links to 'NLM Home', 'Contact NLM', 'Site Map', and 'FAQs'. Below the header is a banner with a family silhouette. The main content area has a sub-header 'Pathways for Public Health Information' and a paragraph about selected links to environmental health and toxicology resources. A 'Selection Criteria' link is provided for learning how materials are chosen. The 'Enviro-Health Links' section is a table with three columns: 'Enviro-Health Links', 'Disaster Health Links', and 'Targeted Populations'. The 'Enviro-Health Links' column lists topics like Arsenic and Human Health, Climate Change and Health, Dietary Supplements, and Lead and Human Health. The 'Disaster Health Links' column lists topics like Animals in Disasters, Biological Warfare, Chemical Warfare, and Earthquakes. The 'Targeted Populations' column lists topics like American Indian Health, Arctic Health, Asian American Health Web Site, Children's Environmental Health Information Resources, Multi-Cultural Resources for Health Information, Refugee Health Information Network (RHIN®), and Women's Health Resources.

Enviro-Health Links	Disaster Health Links	Targeted Populations
► Arsenic and Human Health	► Animals in Disasters	► American Indian Health
► Climate Change and Health	► Biological Warfare	► Arctic Health
► Dietary Supplements	► Chemical Warfare	► Asian American Health Web Site
► Education, Careers and Outreach in Toxicology and Environmental Health	► Crude Oil Spills and Human Health	► Children's Environmental Health Information Resources
► Environmental Justice Internet Guide	► Disaster Recovery and Environmental Health	► Multi-Cultural Resources for Health Information
► Imported (Chinese) Drywall	► Earthquakes	► Refugee Health Information Network (RHIN®)
► Indoor Air Pollution	• Chile Earthquake	► Women's Health Resources
► Keeping the Artist Safe: Hazards of Arts and Crafts Materials	• Health Resources for Haiti	
► Lead and Human Health	► Floods	
► Mercury and Human Health	► H1N1 Flu (Swine Flu)	
	► Health Effects from the Collapse of the World Trade Center	

sis.nlm.nih.gov/enviro/envirohealthlinks.html

Links to information of special interest include:

- Arsenic and Human Health
- Biological Warfare
- California Wildfires
- Chemical Warfare
- Dietary Supplements
- Health Effects from the Collapse of the World Trade Center
- Environmental Justice Internet Guide
- Hurricanes: Links to information about preparedness, recovery, and environmental health
- Hurricanes Katrina, Rita, and Wilma: Impact on environmental health
- Indoor Air Pollution
- Keeping the Artist Safe: Hazards of Arts and Crafts Materials
- Lead and Human Health
- Mercury and Human Health
- Outdoor Air Pollution
- Pesticide Exposure
- Special Populations: Emergency and Disaster Preparedness
- Tornadoes
- Toxicogenomics
- West Nile Virus: Pesticides Used for Mosquito Control

Special Populations: Emergency and Disaster Preparedness

The **Special Populations: Emergency and Disaster Preparedness** page on NLMs Web site offers emergency and disaster preparedness information specifically for the disabled, seniors, hearing and visually impaired, and other population groups that might need additional assistance in the event of an emergency.

Links to issues of special interest:

sis.nlm.nih.gov/outreach/specialpopulationsanddisasters.html

The page includes links to information for these populations that includes guidance for organizations and governments and employers, foreign language materials, lessons learned from prior disasters, and saved searches in MedlinePlus and PubMed.

Additional Resources

For further information, we recommend these additional resources:

- ▶ NLM Disaster Information Management Research Center:
sis.nlm.nih.gov/dimrc.html

What Is TOXNET?

The NLM TOXicology Data NETwork (TOXNET) is a free, Web-based system of databases on toxicology, environmental health, hazardous chemicals, toxic releases, chemical nomenclatures, and specialty areas such as occupational health and consumer products. Information includes specific chemicals, mixtures, and products; unknown chemicals; and special toxic effects of chemicals in humans and/or animals.



The screenshot shows the TOXNET homepage with several callout boxes and arrows pointing to specific features:

- Select a TOXNET database to search** (points to the "Select Database" sidebar on the left)
- Search All Databases** (points to the "Search All Databases" section in the center)
- Link to EH/Tox Portal** (points to the "Env. Health & Toxicology" section on the right)
- Support Pages** (points to the "Support Pages" section on the right)

The "Select Database" sidebar lists the following databases:

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

The "Search All Databases" section includes a search bar and TOXNET Search Options:

- Search all databases: Enter term(s) in box above
- Search a specific database: Click database at left
- Database description: Click on the [?]

The "Env. Health & Toxicology" section features a "Portal to environmental health and toxicology resources" with a "VISIT SITE" button.

The "Support Pages" section contains links to:

- ▶ Help
- ▶ TOXNET FAQ
- ▶ TOXNET Update Status
- ▶ Fact Sheet
- ▶ Database Description
- ▶ Training Manual & Schedule
- ▶ News

The URL toxnet.nlm.nih.gov is displayed at the bottom of the page.

Click the information icon (?) to the right of each database in the **Select Database** column for a description of the database, a link to the fact sheet, and a sample record.

The TOXNET Databases

The TOXNET databases can be grouped in the following categories:

- ▶ **Chemical Information:** ChemIDplus
- ▶ **Toxicology Data (one record per chemical):** HSDB, IRIS, CCRIS, GENE-TOX, ITER, and LactMed (can also search any combination of these files with the **Multi-Database** feature)
- ▶ **Toxicology Literature (bibliographic references):** TOXLINE and DART
- ▶ **Toxic Releases:** TRI and TOXMAP
- ▶ **Specialty Databases:** Haz-Map, Household Products Database, Tox Town
- ▶ **Additional Resource:** Carcinogenic Potency Database (CPDB)

Basic Searching in TOXNET

From the TOXNET home page, you can search all TOXNET databases simultaneously. Your results will be displayed as links to the databases in which your search term(s) were found—and the number of records in each—under the headings: **References from the Biomedical Literature** (TOXLINE and DART) and **Chemical, Toxicological, and Environmental Health** (all others).

References from Biomedical Literature	
TOXLINE	Toxicology Literature Online
DART	Developmental Toxicology Literature

Chemical, Toxicological, and Environmental Health Data	
ChemIDplus	Chemical Identification/Dictionary
HSDB	Hazardous Substances Data Bank
CCRS	Chemical Carcinogenesis Information
CPDB	Carcinogenic Potency Database

Entering search term(s)

You may enter any combination of words, chemical names, and numbers, including Chemical Abstracts Service (CAS) registry numbers. Common “stop words” such as “a,” “an,” “and,” “for,” “the,” and “it” will not be searched. When searching for terms other than chemicals, the system automatically searches for singular and plural forms of the term(s) entered.

Synonym searching

By default the system will search for the exact name, synonyms, and CAS number as derived from ChemIDplus. Select “No” to search only for the exact chemical term or CAS Registry Number entered. In LactMed, the CAS number refers to the parent compound (i.e., not the salt form).

Truncation

The asterisk (*) is the right-handed truncation symbol for any number of characters.

Phrase searching

Search phrases with quotation marks.

Boolean searching

Use the logical operators “AND,” “OR,” and “NOT” to limit a search of two or more terms to specific criteria. In searches with combinations of these operators, “AND” takes precedence, followed by

“NOT” and then “OR.” This default precedence may be overridden with the use of parentheses, which may also be nested (i.e., parentheses within parentheses). Examples:

- ▶ Pulmonary **AND** edema—retrieves all records with the two words appearing together
- ▶ Liver **OR** kidney—retrieves all records containing either of these words (or both of them)
- ▶ Carcinoma **NOT** squamous—retrieves records from which one or more terms have been excluded

Browsing in TOXNET

The **Browse Index** feature provides a scannable index of all terms beginning with the search term you entered and the number of records for each term. In the Toxicology Data databases, selectable items indexed are **All Words**, **CAS Registry Number**, and **Chemical Name**. In the Toxicology Literature databases, selectable items indexed are **All Words**, **MeSH Headings/Keywords**, **Authors**, and **CAS Registry Number**.

Search Results (Example: HSDB)

Buttons on the left of the search results screen allow you to:

- ▶ **Save Checked Items** in a set for displaying, sorting, and downloading
- ▶ **Sort** the entire search results or items saved in a set
- ▶ **View Details** of the search—a summary of your search strategy with synonyms added
- ▶ **View a History** of your searches, numbered sequentially with number of records retrieved for viewing earlier search result sets or combining sets for further searching
- ▶ **Download** all search results or items save in a set in brief, full, abstract, or tagged format
- ▶ **Modify Search:** Make changes to the most recent search
- ▶ Return to the **Basic Search** screen in the same database to conduct a new search
- ▶ **Browse Index:** Browse all words, CAS Registry Number, chemical name, and, in bibliographic databases, MeSH headings/keywords and authors

HSDB Search Results

ammonia

Items 1 through 20 of 974

1 AMMONIA
7664-41-7

2 AMMONIUM HYDROXIDE
1336-21-6

3 AMMONIUM CHLORIDE
12125-02-9

4 AMMONIUM ACETATE
631-61-8

5 AMMONIUM SULFATE
7783-20-2

6 AMMONIUM CARBAMATE
1111-76-0

7 AMMONIUM BICARBONATE

Record Screen (Example: HSDB)

Navigation buttons at the top of the record screen allow you to perform additional actions:

- ▶ Go to the **Next Item** in the search results
- ▶ Go back to the **Search Results** screen
- ▶ Display links to **Other Files** (NLM databases) containing information on the substance (Links go directly to other TOXNET files.)
- ▶ Perform a new search in the same database with **Limits** applied (Select a specific field or category of fields to narrow your search.)

AMMONIA
CASRN: 7664-41-7

For other data, click on the Table of Contents

Human Health Effects:

Human Toxicity Exempts:

SYMPTOMATOLOGY (AMMONIA GAS & WATER ONLY): 1. Vapors cause irritation of eyes & resp tract. High concn cause conjunctivitis, laryngitis, & pulmonary edema or pneumonitis. Sensation of suffocation ... induced by spasm of glottis or by laryngeal edema. 2. Contact with skin can cause burns & vesication. If squirted into eyes ... rise in intraocular pressure may mimic narrow-angle glaucoma. Corneal edema & semidilated fixed pupils ... are/ typical. 4. If systemic absorption becomes extensive, coma may arise ... preceded by ... hypertonus & convulsions.

(Gosselin, R.E., R.P. Smith, H.C. Hodge. *Clinical Toxicology of Commercial Products*. 5th ed. Baltimore: Williams and Wilkins, 1984., p. III-22) **PEER REVIEWED**

AMMONIA HAS A GREATER TENDENCY THAN OTHER ALKALIES TO PENETRATE & DAMAGE THE IRIS, & TO CAUSE CATARACT IN SEVERE BURNS/. IRITIS MAY BE ACCOMPANIED BY HYPOPYON OR HEMORRHAGES ... EXTENSIVE LOSS OF PIGMENT & SEVERE CILIOPATHY

This page is intentionally blank.

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 <ul style="list-style-type: none">• ChemIDplus• HSDB• TOXLINE• CCRIS• DART• GENETOX• IRIS• ITER• LactMed• Multi-Database• TRI• Haz-Map• Household Products• TOXMAP• TOXNET Home	Search HSDB <input type="text" value=""/> (e.g. antifreeze kidney failure, chromium compounds, 7718-54-9) <input type="button" value="Search"/> <input type="button" value="Clear"/> <input type="button" value="Help"/> For chemicals, add synonyms and CAS numbers to search: <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="button" value="Limits"/> <input type="button" value="Browse the Index"/>	Env. Health & Toxicology  Portal to environmental health and toxicology resources <input type="button" value="VISIT SITE"/>
Additional Resource <ul style="list-style-type: none">• CPDB	Support Pages <ul style="list-style-type: none">► Help► Fact Sheet► Sample Record► HSDB Scientific Review Panel► TOXNET FAQ	

toxnet.nlm.nih.gov

HSDB

HSDB (Hazardous Substances Data Bank) is a comprehensive toxicology data file on NLM's TOXNET system. It contains data on over 5,000 chemicals, organized into individual records—the average record is approximately 25 printed pages. Content is peer-reviewed by a Scientific Review Panel, a committee of experts in the major subject areas within the data bank's scope. HSDB is enhanced with information on human exposure, industrial hygiene, emergency handling procedures, environmental fate, regulatory requirements, and related areas.

toxnet.nlm.nih.gov

Searching HSDB

Search HSDB by chemical or other name, chemical name fragment, Chemical Abstracts Service (CAS) Registry Number, and/or subject terms (basic searching). By default, the system searches for synonyms and CAS numbers of chemicals.

Use truncation (*), Boolean operators (AND, OR, NOT), phrase searching, nested parentheses, limits, and index browsing to refine your search results.

Click the **Limits** button on the home page to search:

- ▶ Exact words, singular & plural forms, or word variants
- ▶ All the words, any of the words, or as a phrase
- ▶ In specific fields or categories of fields (see “HSDB Limits Search Fields” in this section)

 Yes No'. Underneath are search options: 'Search: exact words singular & plural forms word variants' and 'Search records with: the phrase all words any words'. At the bottom are 'Search in fields: (If no box is checked, all fields will be searched.)' and checkboxes for 'Contract all categories' and 'Expand all categories'."/>

Click the **Browse the Index** button on the home page to search a list of index terms related to the search term entered and the number of records containing that term. Select the record(s) you want to view by clicking the appropriate box in the “Check to Select” column and clicking the **Select** button. Scan the index above or below the original display by clicking the **Up** or **Down** button.

Check to Select	Number of Records	Index Term
<input type="checkbox"/>	1063	benzene
<input type="checkbox"/>	4	benzeneacetamide
<input type="checkbox"/>	7	benzeneacetate
<input type="checkbox"/>	25	benzeneacetic

Search Results

Your initial retrieval is displayed as a list of substance names in blue and their CAS Registry Numbers. Substances are listed in **relevancy ranked order**. Relevancy ranking is based on the number of individual search terms occurring in a document, the number of times each search term occurs in a document, the rarity of the search terms within the database, and the nearness of search terms to each other. Records containing combinations of search terms tend to be ranked higher than records with isolated occurrences of search terms.

When searching for a chemical, the initial matching chemical record (primary record) may be followed by additional chemical records that contain the chemical name or search term you entered.

1 <input type="checkbox"/> BENZENE 71-43-2	
2 <input type="checkbox"/> HYDROQUINONE 123-31-9	
3 <input type="checkbox"/> TOLUENE	

Search Results Screen

Click a substance name on the search results screen to retrieve the record for that substance. The **Record** screen is organized into three sections:

1. Navigation buttons at the top of the screen allow you to link to **Other Files** (NLM databases), modify your search (**Modify Search**), **Download**, return to the **Basic Search** screen, and more.
2. A **Table of Contents** in the left frame allows you to choose categories and fields for display.
3. Chemical data is shown in the right frame. Your search term(s) appear in red.

Record Screen

If you click the primary record, the system displays the **Human Health Effects**. If you click a different chemical record, or if your search was for a term other than a chemical, the system will display the sections of the record best matching your query terms (**Best Sections**), those where the chemical search term appears with greatest frequency.

Additional Resources

For further information, we recommend these additional resources:

- HSDB Skill Kit
www.nlm.nih.gov/pubs/techbull/ma07/ma07_hsdb_skill_kit.html
- HSDB Animated Tutorial
sis.nlm.nih.gov/enviro/captivate/basicsearchinghsdb_skin.swf

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 in fields:
(If no box is checked, all fields will be searched.)

Search fields in 16 categories:

Contract all categories -
 Expand all categories +

Contract/Expand all categories

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

Expanded Categories (All Fields)

<ul style="list-style-type: none"> Substance Identification <ul style="list-style-type: none"> Chemical Names CAS Registry Number Human Health Effects <ul style="list-style-type: none"> Toxicity Summary Evidence for Carcinogenicity Human Toxicity Excerpts Human Toxicity Values Skin, Eye and Respiratory Irritations Drug Warnings Medical Surveillance] Populations at Special Risk Probable Routes of Human Exposure Body Burden Average Daily Intake Minimum Fatal Dose Level 	<ul style="list-style-type: none"> Emergency Medical Treatment <ul style="list-style-type: none"> Emergency Medical Treatment Antidote and Emergency Treatment Animal Toxicity Studies <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> Metabolism/Metabolites Absorption, Distribution & Excretion
---	---

-  Biological Half-Life
-  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 Search Exercises

Search Example: What are the human health effects of *bisphenol A* residue in plastic bottles?

Suggested Solution:

- ▶ Go to toxnet.nlm.nih.gov
- ▶ Click **HSDB** in the Select Database column
- ▶ Type ***bisphenol a*** in the search box
- ▶ Click the **Search** button

TOXNET PDA Access

SIS Home | About Us | Site Map & Search | Contact Us
 Env. Health & Toxicology | TOXNET | HSDB

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

Select Database

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

Search HSDB

bisphenol a
 (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

- ▶ Click **BISPHENOL A**

HSDB Search Results

bisphenol a | Search | Clear | Limits

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

Items 1 through 20 of 57
 Substance Names are sorted in [relevancy ranked order](#).
 Pages: [1](#) [2](#) [3](#) [4](#)

Select	Record	Substance Name
<input type="checkbox"/>	BISPHENOL A	Synonym: bisphenol a 80-05-7
<input type="checkbox"/>	BISPHENOL A DIGLYCIDYL ETHER	1675-54-3
<input type="checkbox"/>	BUTYLPARABEN	94-76-8

- ▶ Review Human Health Effects information in the right frame

Hazardous Substances Data Bank
HSDB

Next Item | Search Results | Basic Search | Details | Other Files | Modify Search
 Download | Limits | Browse Index | Help

BISPHENOL A
 CASRN: 80-05-7

For other data, click on the Table of Contents

Human Health Effects:

Human Toxicity Excerpts:

/CASE REPORTS/ Both a 17-year-old woman and 25-year-old man developed dermatitis on the feet that corresponded to the area in contact with the plastic sandals they wore. Patch testing was performed with 30 different potential plastic and glue allergens, but apparently a positive result was seen only with bisphenol-A (1%). Bisphenol-A was demonstrated to be present in the footwear. Again, either free bisphenol-A may have caused these allergic responses or these constitute further cases of cross sensitisation consequent to initial sensitisation to bisphenol-A derived epoxy resins in plastics.

[European Chemicals Bureau; European Union Risk Assessment Report, 4,4-]

TOXNET Home | NLM Home | National Library of Medicine

Item 1 of 57

- ▶ Click the **Basic Search** button at the top of the page to prepare for the next search

Exercise 1: What chemicals are welders potentially exposed to?

Suggested Solution:

Type	welders in the search box
Click	the Search button
Review	record(s) of your choice
Click	the Basic Search button at the top of the page to prepare for the next search

Exercise 2: What human health effects are associated with the recent BP crude oil spill in the gulf coast? What cleanup methods are recommended for the oil?

Suggested Solution:

Type	crude oil in the search box
Click	the Search button
Click	Crude Oil
Click	Human Health Effects in the Table of Contents frame on the left
Review	the information in the right frame
Click	<u>Cleanup Methods</u> under <u>Chemical Safety & Handling</u> in the Table of Contents frame
Review	the information in the right frame
Click	the Basic Search button at the top of the page to prepare for the next search

Exercise 3: Using limits, find chemical warfare agents that have a record in HSDB. Limit your search to major uses under Manufacturing/Use Information.

Suggested Solution:

Click	the Limits button at the bottom of the search box
Type	chemical warfare in the search box
Select	“exact words” and “the phrase” below the search box
Click	the plus (⊕) icon to expand the Manufacturing/Use Information field

Click	to check the box next to Major Uses
Click	the Search button
	 Examine the use field text. Results may contain chemicals used against chemical warfare agent exposure.
Review	a record of your choice

This page is intentionally blank.

12

Household Products Database



The screenshot shows the homepage of the Household Products Database. At the top, there are links for the U.S. Department of Health & Human Services, the National Institutes of Health, the National Library of Medicine, and Specialized Information Services (NLM). The main title is "Household Products Database" with the subtitle "Health & Safety Information on Household Products". Below the title is a "Quick Search" bar and a "Advanced Search" link. On the left, there are sections for "Browse by Category" (Auto Products, Inside the Home, Pesticides, Landscape/Yard, Personal Care, Home Maintenance, Arts & Crafts, Pet Care, Home Office), "Browse A-Z" (Product Names, Types of Products, Manufacturers, Ingredients), and "Support" (About the Database, FAQ, Product Recalls, Help, Glossary, Contact Us, More Resources). The main content area features a grid of nine categories: "Auto Products" (Brake Fluid, De-icer, Lubricant, Sealant, and more...), "Inside the Home" (Air Freshener, Bleach, Cleaners, Toilet Bowl Cleaner, and more...), "Pesticides" (Animal Repellant, Fungicide, Herbicide, Insecticide, and more...), "Landscape/Yard" (Fertilizer, Lawn Care, Swimming Pool Products, and more...), "Personal Care" (Antiperspirant, Hair Spray, Makeup, Shampoo, Soap and more...), "Home Maintenance" (Caulk, Grout, Insulation, Paint, Putty, Stain, and more...), "Arts & Crafts" (Adhesive, Glaze, Glue, Primer, Varnish, and more...), "Pet Care" (Flea & Tick Control, Litter, Stain/Odor Remover, and more...), and "Home Office" (Ink, Toner, Correction Fluid, Electronics Cleaners, Pens and more...). A call to action at the bottom left encourages users to call their local Poison Center at 1-800-222-1222. The footer includes links to Home, Products, Manufacturers, Ingredients, and Health Effects.

hpd.nlm.nih.gov

Household Products Database

Household Products Database (HPD) contains links for over 10,000 consumer brands of household products to health effects from Material Safety Data Sheets (MSDS) provided by the manufacturers.

Advanced Search

More Resources

Navigation Toolbar

hpd.nlm.nih.gov

HPD is designed to help answer the following typical questions:

- ▶ What are the chemical ingredients and their percentage in specific brands?
- ▶ Which products contain specific chemical ingredients?
- ▶ Who manufactures a specific brand? How do I contact this manufacturer?
- ▶ What are the acute and chronic effects of chemical ingredients in a specific brand?

Searching Household Products Database

The HPD is divided into four categories: Products, Manufacturers, Ingredients, and Health Effects. Navigate to a category by clicking the appropriate tab at the top of the page.

Search by using the Quick Search box on the home page or by selecting the Advanced Search link for a more detailed search. Clicking the Health Effects tab will bring up the Advanced Search screen with the Health Effects category selected for searching.

Browse by product category or alphabetically by product names, types of products, manufacturers, or ingredients (see left sidebar).

Additional Resources

For further information, we recommend these additional resources:

MSDS Information Resources

- ▶ SIRI MSDS Archive
hazard.com/msds
- ▶ MSDSprovider: Free Access to Manufacturer-Direct MSDSs
www.msdsprovider.com

Government Information Resources

- ▶ OSHA's MSDS Regulation – Hazard Communication 1910.1200
www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10099&p_text_version=FALSE
- ▶ Read the Label First! Campaign (EPA)
www.epa.gov/pesticides/label
- ▶ Household Hazardous Waste (EPA)
www.epa.gov/epawaste/conserve/materials/hhw.htm

From the National Library of Medicine

- ▶ TOXNET—databases in toxicology and environmental health
toxnet.nlm.nih.gov
- ▶ Tox Town—an interactive guide to commonly encountered toxic substances
toxtown.nlm.nih.gov

Product Recalls

- ▶ Product Safety and Recall Lists
hpd.nlm.nih.gov/recalls.htm



Household Products Database Search Exercises

Search Example: How can I find information about specific brands of teeth whiteners, including their manufacturing information, ingredients, and health effects?

Suggested Solution:

- Go to hpd.nlm.nih.gov
- ▶ Click **Personal Care**

The screenshot shows the main interface of the Household Products Database. At the top, there are tabs for Home, Products, Manufacturers, Ingredients, and Health Effects. Below the tabs, there's a search bar and a 'Quick Search' button. To the left, there's a sidebar with links for 'Browse by Category' (Auto Products, Inside the Home, Pesticides, Landscape/Yard, Personal Care, Home Maintenance, Arts & Crafts, Pet Care, Home Office), 'Browse A-Z' (Product Names, Types of Products, Manufacturers, Ingredients), and 'Support' (About the Database, FAQ). The main content area is a grid of categories with images: Auto Products, Inside the Home, Pesticides, Landscape/Yard, Personal Care, Home Maintenance, Arts & Crafts, Pet Care, and Home Office. The 'Personal Care' category is highlighted with a red box. Each category has a brief description below it.

- ▶ Click Oral Hygiene in the Personal Care column
- ▶ Click teeth whitener in the Type column
- ▶ Click the Product Name of your choice and review the product information

The screenshot shows a search results page for the 'Personal Care' category. The 'Type' field is highlighted with a red box and contains the text 'teeth whitener'. Below the search results, there's a list of product names: Crest Professional Strength WhiteStrips-Old Product, Crest Whitening Strips-Old Product, Crest WhiteStrips Daily Multicare, Crest WhiteStrips Dental Whitening Formula, Renewal, Premium and Premium plus, Crest WhiteStrips Supreme-Old Product, and Crest WhiteStrips, Supreme-12/03/2007. The 'Oral Hygiene' link in the sidebar is also highlighted with a red box.

- ▶ Click the **Home** tab to prepare for the next search

The screenshot shows the main interface of the Household Products Database again, but this time the 'Home' tab is highlighted with a red box. The other tabs (Products, Manufacturers, Ingredients, Health Effects) are visible but not highlighted.

Exercise 1: Using Quick Search locate products containing *panthenol*.

Suggested Solution:

- Type **panthenol** in the Quick Search box
- Click the **Go** button
- Click Panthenol on the **search results page**
- Review the information under “Products that contain this ingredient”

Exercise 2: What household products are associated with asthma?

Suggested Solution:

- Click the **Health Effects** tab
- Type **asthma** in the search box
 -  By default, the search will be conducted in all product categories.
- Select Inside the Home from the **All Product Categories** pull-down menu
- Click the **Search** button and view the list of products
- Click a product of your choice and review the information under **Health Effects**

Exercise 3: What ant killers contain *diazinon*?

Suggested Solution:

- Click the **Ingredients** tab
- Click **D**
- Click diazinon and view the list of products

Exercise 4: Conduct a search on a topic of your choice.

TRI and TOXMAP

TOXNET
Toxicology Data Network

TOXNET PDA Access

Env. Health & Toxicology ► **TOXNET** ► **TRI**

Toxics Release Inventory (TRI) - Annual environmental releases of over [600 toxic chemicals](#) by U.S. facilities.
About the Environmental Protection Agency (EPA) [Toxics Release Inventory \(TRI\)](#) Program.

Select Database

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

Additional Resource

- CPDB

Search TRI

Chemical Name or CAS Registry Number

Search Clear Help

Add synonyms and CAS numbers to search:
Yes No

TRI Files:

Select All

TRI2008 TRI2007 TRI2006
 TRI2005 TRI2004 TRI2003
 TRI2002 TRI2001 TRI2000
 TRI1999 TRI1998 TRI1997
 TRI1996 TRI1995 TRI1994
 TRI1993 TRI1992 TRI1991
 TRI1990 TRI1989 TRI1988
 TRI1987

Env. Health & Toxicology

Portal to environmental health and toxicology resources

Support Pages

Help Fact Sheet Sample Record TOXNET FAQ

toxnet.nlm.nih.gov

TOXMAP
Environmental Health e-Maps

Home **TRI Facilities** **TRI Releases** **TRI Trends** **Superfund** **Combo** **Search** **Help** **Contact Us**

► Welcome News Accessibility Fact Sheet For Teachers Tour About Site Map

Quick Search

Select Dataset(s): TRI Superfund NPL

Chemical Name

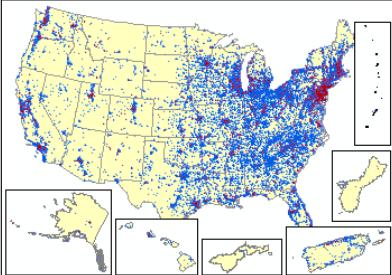
City

State ZIP [Lookup]

Search Clear

Choose a region... More search options... Search TOXNET TRI

Use Quick Search or click on a map to explore on-site toxic releases and hazardous waste sites from the EPA's Toxics Release Inventory (TRI) and the Superfund National Priorities List (NPL).





May is Clean Air Month

- Try the TOXMAP Widget
- Try the TOXMAP Toolbar
- TOXMAP Brochure now available (PDF, 2.07MB)

Environmental News from EPA:

- EPA Helps Americans Get Ready for Summer with Insect Repellents
- Bothell wireless facility faces \$57,000 fine for diesel spill

toxmap.nlm.nih.gov

Toxics Release Inventory

The **Toxics Release Inventory (TRI)** is a publicly available resource of the U.S. Environmental Protection Agency containing detailed information on approximately 650 chemicals and chemical categories which over 23,000 U.S. industrial and federal facilities manage through disposal or other releases, recycling, energy recovery, or treatment. This inventory was established under the Emergency Planning and Community Right to Know Act of 1986 (EPCRA) and was expanded by the Pollution Prevention Act of 1990. Since 1987, TRI's reporting data covers air, water, land, and underground injection releases as well as transfers to waste sites.

TOXNET
Toxicology Data Network

Select Database

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

Additional Resource

- CPDB

Search TRI

Chemical Name or CAS Registry Number

Search Clear Help

Add synonyms and CAS numbers to search:
 Yes No

TRI Files: Select All

TRI2008 TRI2007 TRI2006
 TRI2005 TRI2004 TRI2003
 TRI2002 TRI2001 TRI2000
 TRI1999 TRI1998 TRI1997
 TRI1996 TRI1995 TRI1994
 TRI1993 TRI1992 TRI1991
 TRI1990 TRI1989 TRI1988
 TRI1987

Env. Health & Toxicology

Portal to environmental health and toxicology resources [VISIT SITE](#)

Support Pages

- Help
- Fact Sheet
- Sample Record
- TOXNET FAQ

toxnet.nlm.nih.gov

Select
File Year(s)

Searching TRI

Search TRI by chemical or other name, chemical name fragment, Chemical Abstracts Service (CAS) Registry Number, and/or subject terms. By default, the system adds synonyms and CAS numbers to chemical searches. Use truncation (*), Boolean operators (AND, OR, NOT), nested parentheses, and limits to refine your search results.

TRI currently contains data from 1987 through 2008. By default the system will search the most current year. You can also limit your search with the following criteria:

- Facility Name
- Facility Location
 - Select State, City/State, County/State, or Zip

Facility Names (Separate multiple entries with commas)
Facility Location (Separate multiple entries for state, city/state, or zip with commas. For example: NJ, DE, or Trenton/NJ, Houston/TX, or 21113, 21224.)
<input checked="" type="radio"/> State <input type="radio"/> City/State <input type="radio"/> County/State <input type="radio"/> Zip
TRI Reporting Form Type
<input checked="" type="radio"/> Both Form R and Form A <input type="radio"/> Form R (long form) only <input type="radio"/> Form A (short form) only
Standard Industrial Classification Code, North American Industry Classification System Code (Separate multiple entries with commas)
Greater Than <input type="text" value="0 lbs"/> for None Selected <input type="button"/>
<input type="button"/> Search <input type="button"/> Browse the Index

- TRI Reporting Form Type
 - Ability to search for either Form R or Form A or both
- Standard Industrial Classification Code or North American Industry Classification System Code
 - Separate multiple entries with commas
- Weight in pounds (**Greater Than**)
- Type of release (air, water, land, underground injection, disposal, and production-related waste)

With the **Browse the Index** feature, the system returns a list of index terms related to the search term entered and the number of records containing that term. Select one or more index terms and click the **Select** button for the search results. Scan the index above or below the original display by clicking the **Up** or **Down** button.

TRI Search Results

Your initial retrieval is displayed in relevancy ranked order as a list of abbreviated records with facility name in blue and hot-linked, chemical name, and city and state where the facility is located. Relevancy ranking is based on the number of individual search terms occurring in a document, the number of times each search term occurs in a document, the rarity of the search terms within the database, and the nearness of search terms to each other. Records containing combinations of search terms tend to be ranked higher than records with isolated occurrences of search terms.

The **Record** screen is organized into three sections:

1. Navigation buttons at the top of the screen allow you to link to **Other Files** (NLM databases), **Modify Search**, **Download**, return to the **Basic Search** screen, and more.
2. A **Table of Contents** in the left frame allows you to choose categories and fields for display.
3. Data is shown in the right frame—Click the **Map it with TOXMAP** button to visually explore on-site releases in TOXMAP

Additional Resources

For further information, we recommend these additional resources:

- TRI Fact Sheet
nlm.nih.gov/pubs/factsheets/trifs.html

TOXMAP

TOXMAP is a Geographic Information System (GIS) that uses maps of the United States to help users visually explore data from the Environmental Protection Agency's Toxics Release Inventory (TRI) and Superfund programs. TOXMAP helps users create nationwide, regional, or local area maps showing where TRI chemicals are released on-site into the air, water, and ground. Maps can also show locations of Superfund sites on the National Priorities List (NPL). The NPL guides the federal government in determining which sites should be investigated. It is updated on a regular basis.

Quick Search:

Selected Dataset(s): TRI Superfund NPL

Chemical Name:

City:

State: ZIP [\[Lookup\]](#)

[Search](#) [Clear](#)

[Choose a region...](#) [More search options...](#)

Search TOXNET® TRI

TOXMAP:® Environmental Health e-Maps

TOXMAP® Environmental Health e-Maps

Use Quick Search or click on a map to explore on-site toxic releases and hazardous waste sites from the [EPA's Toxics Release Inventory \(TRI\)](#) and the [Superfund National Priorities List \(NPL\)](#).

File Edit View Favorites Tools Help

TOXMAP benzene [\[Go\]](#)

Search

TRI Chemical

Superfund Chemical

TRI / SF by ZIP [\[Go\]](#)

Try the TOXMAP Toolbar

- Updated Superfund, NCI Mortality data
- Try the TOXMAP Widget

Subscribe to TOXMAP news feed

Environmental News from EPA:

- Central Oregon and Pacific Railroad pays \$272,900 for diesel spill in Cow Creek derailment
- EPA Pesticide Database to Aid Consumers in Controlling Bed Bugs
- Removal and Clean Up Work Begins at Easthampton, Mass. Site

TRI facilities (blue) and Superfund NPL sites (red).

toxmap.nlm.nih.gov

Map Features

TOXMAP offers several ways to create maps: using the tabs and sub-tabs along the top of the page, the Quick Search box on the home page, and the Map Controls below each created map.

TOXMAP can create several types of maps:

- TRI Facilities
- TRI Chemical Releases
- TRI Chemical Trends
- Superfund Maps
- Combination (Combo) Maps
- Search (Advanced)

MAP CONTROLS

TRI [\[?\]](#)

None

Facilities

Releases : 2006

Trends

Superfund [\[?\]](#)

None

All NPL

NPL Final

NPL Deleted

NPL Proposed

Demographic [\[?\]](#)

None

Population Density - 2000

[\[Apply other demographics\]](#)

[Search chemical](#) | [Define a combo map](#) | [Start over](#)

TOXMAP also overlays map data such as:

- U.S. Census Data—1990 and 2000 demographics (population, ethnicity, age, gender ratio)
- Income Data—per capita personal income
- Health Data—mortality data for cancer and various causes
- Reference Data—cities, roads, hospitals, federal land, and urban areas

DISCLAIMER: The co-occurrence of a substance and a particular health problem does not by itself imply an effect on human health by that substance.

Searching and Creating Maps in TOXMAP

TOXMAP's **Quick Search** feature on the home page allows you to search TRI and Superfund data by chemical and to zoom the resulting map to a specific city, state, or zip code. More advanced search options are available by clicking the More search options... link or by selecting the **Search** tab at the top of the page.

The Search page allows users to search a chemical CAS/RN, TRI facility name/ID, release year ranges, release medium, release amount, Superfund NPL site name/ID/status, and Hazard Ranking System (HRS) score. You can also select specific geographic regions. Release color coding is calibrated only for releases in that region rather than for the entire nation.

Quick Search

Select Dataset(s): TRI Superfund NPL

Chemical Name:

City:

State: ZIP: [Lookup]

[Choose a region...](#)

[More search options...](#)

Home TRI Facilities TRI Releases TRI Trends Superfund Combos **Search** Help Contact Us

[Edit Search](#) [Display Map](#) [Set Region](#) [Other Data](#) [Download](#)

Search

Click the "Set Region" tab to show results only in a specified geographic region.

CHOOSE A CHEMICAL

Chemical: CAS RN

1,1-Biphenyl

CHOOSE A DATASET

Toxics Release Inventory (TRI)

Search all TRI facilities

Search only facilities with the selected chemical

Do not search TRI facilities

Superfund National Priorities List (NPL)

Search all Superfund sites

Search only NPL sites with the selected chemical

Do not search Superfund sites

TRI Facility Name
TRI Facility ID

Release Medium Any Medium Water Air Land Underground Injection

Release Years 2008 to 2008

Release Exceeds lbs.

NPL Site Name
EPA ID

NPL Status All Final Proposed Deleted

Hazard Ranking System Score 0 to 100

Auto-zoom map to include all search results

Additional Resources

For further information, we recommend these additional resources:

- TOXMAP Tour
toxmap.nlm.nih.gov/toxmap/tour/index.html
- TOXMAP Fact Sheet
www.nlm.nih.gov/pubs/factsheets/toxmap.html
- Online Tutorial: TOXMAP Basics
toxmap.nlm.nih.gov/toxmap/tour/misc/ToxmapBasics.html

Staying Connected



[Subscribe to RSS](#)

Subscribe to TOXMAP Newsfeed toxmap.nlm.nih.gov/toxmap/news/atom.xml.



TRI/TOXMAP Search Exercises

Search Example: Was any *benzene* released to the environment in North Carolina in 2008? Map the releases in TOXMAP.

Suggested Solution:

- Go to toxnet.nlm.nih.gov
- Click **TRI** in the **Select Database** column
- Type **benzene** in the Chemical Name or CAS Registry Number search box
 - TRI2008 is selected by default
- Type **NC** in the Facility Location search box
 - State is selected by default
- Click the **Search** button

TOXNET
Toxicology Data Network

Chemical Name or CAS Registry Number: benzene

Facility Names (Separate multiple entries with commas):

Facility Location (Separate multiple entries for state, city, or zip code with comma. For example: NJ, DE, or Trenton/NJ, Houston/TX, or 21113, 21224.) NC

- Click the **Map it with TOXMAP** button

TRI2008 Search Results

Please click on Modify Search button to modify TRI search strategy.

Items 1 through 14 of 14
Facility/Substance Names are *unsorted*.

Select Record Facility/Substance Name

1 UNILIN US MDF BENZENE

Map it with TOXMAP

- Select NC from the **ZOOM TO** pull-down menu to the left of the map
- View the map

Map Other Data

- US Census Data
- Income Data
- Health Data
- Reference Data

Information about this Chemical

NLM Searches of

- Toxicology Databases
- Human Health Effects
- Manufacturing/Use Info
- Env Fate / Exposure
- MagazinePlus

CDC Searches of

- Toxicology FAQ
- Health Assessments
- All CDC Documents
- More Information

ZOOM TO

MP
MS
MT
NC
ND
NE
NH
NJ
NM
NV
NY
OH
OK
VA

MAP DETAILS

Click on the link above to see details for this map.

- Click the **Home** tab at the top of the page

- Click Search TOXNET TRI to prepare for the next search

 The exercises in this section have been designed to be searched in sequence, beginning with a basic search in TRI and moving to TOXMAP.

Exercise 1: How many pounds of *methanol* were released to the environment in your state in 2008?

Suggested Solution:

Type	methanol in the Chemical Name or CAS Registry Number search box
Type	your state in the Facility Location search box
Click	the Search button
Click	the Calculate Totals button at the left of the page
Review	the results
Click	the Modify Search button at the left of the page to prepare for the next search

 This returns you to the TRI search screen with all the information you entered retained.

Exercise 2: Did any facilities in your state release more than 100 pounds of *methanol* to the air in 2008? Review the first record. Next, map the releases in TOXMAP and review the summary of releases for the first 10 facilities.

Suggested Solution:

Click	<u>100 lbs</u> from the Greater Than pull-down menu at the bottom of the limits section
Select	<u>Total On-Site Air Release</u> from the for pull-down menu

- Click the **Search** button
- Click the first facility in the list of facility/substance names
- Click Total Air Release in the Table of Contents under **On-site Releases of Chemical**
- Review the information in the right frame
- Click the **Search Results** button in the header frame at the top of the page
- Click the **Map it with TOXMAP** button (
- Select your state from the **ZOOM TO** pull-down menu to the left of the map
- Click TRI on-site release details to the right of the map below **Map Details**
- View the map and scroll down to review a summary of the releases for each facility

Exercise 3: Link to NLMs Hazardous Substances Data Bank (HSDB) to explore the human health effects of *methanol*.

Suggested Solution:

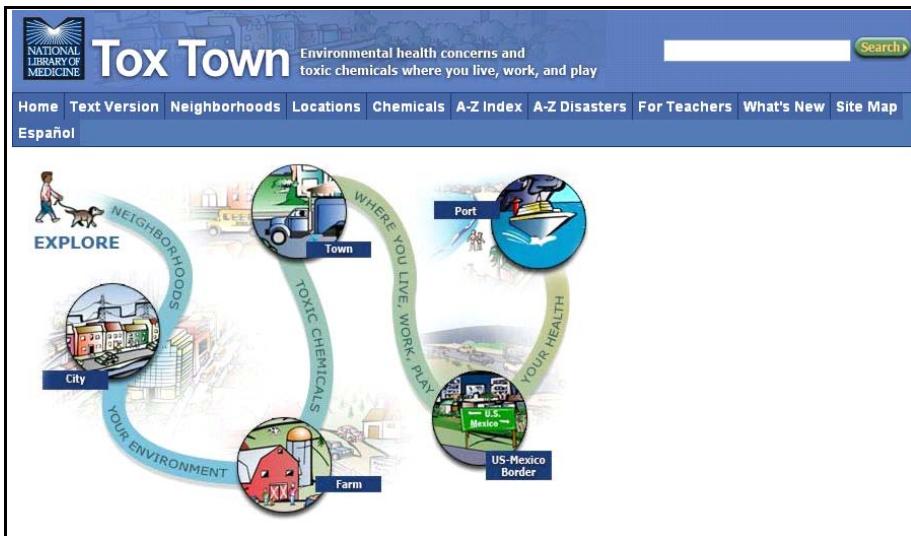
- Click Human Health Effects at the top left of the page in the NLM searches list under **Information about this Chemical**
 -  This takes you directly to the **Human Health Effects** section of the methanol record in HSDB.
- Review the information in the right frame and then close the HSDB window

Exercise 4: Use the 2000 U.S. Census data to overlay detailed demographic information about populations of Black or African American groups within the search area.

Suggested Solution:

- Click U.S. Census Data under **Map Other Data**, to the left of the map
- Select “One Race: Black or African American” under **2000 Race**
- Click the **Submit** button at the bottom of the page
- Click the show values link below the map to the right of “**Legend**”
- Review the displayed information
- Click the NLM logo in the top left corner of the page to prepare for the next session

Tox Town



toxtown.nlm.nih.gov

Tox Town

Tox Town provides an introduction to toxic chemicals and environmental health risks that may be encountered in everyday life, in everyday places. Tox Town allows visitors to tour a Town, City, Farm, Port, or US-Mexico Border community to identify common environmental hazards. It is a companion to the extensive information in the TOXNET collection of databases that are typically used by toxicologists and health professionals.



toxtown.nlm.nih.gov

Tox Town is highly interactive, with graphics, animation, and sound to add interest to learning about connections between chemicals, the environment, and the public's health. It is recommended for high school and college students, educators, and the concerned public. This is an excellent resource for health educators who are asked to find easy-to-understand information about environmental toxins in their community.

The Tox Town Web site is designed to give you information on:

- 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



Tox Town Search Exercises

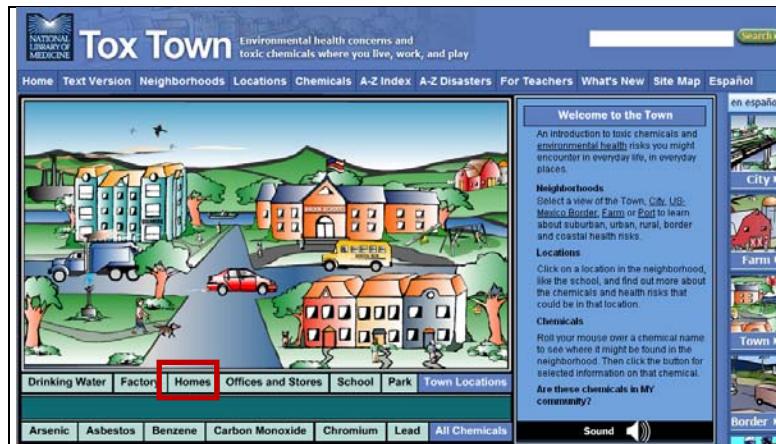
Search Example: Search the Town and find general information about molds.

Suggested Solution:

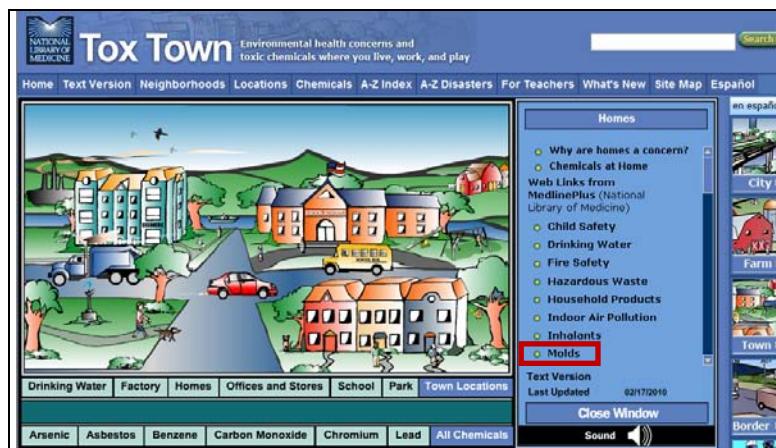
- Go to toxtown.nlm.nih.gov
- Click Town



- Click Homes below the town scene



- Click Molds from the list of Web Links from MedlinePlus to the right of the illustrations



- Review the information retrieved
- Close the pop-up window to return to Tox Town

- Click the Home at the top of the page to prepare for a new search

Exercise 1: What are some of the health effects associated with farm workers who plant and harvest crops?

Suggested Solution:

Click	Farm
Roll	your mouse over the field and click when Crop Fields appears
Click	Farm Health and Safety from the list of Web Links from MedlinePlus to the right of the illustration
Review	the information and close the pop-up window
Click	Home in the top left corner to prepare for the next search

Exercise 2: What are some of the concerns associated with wildfires along the U.S.-Mexico Border?

Suggested Solution:

Click	US-Mexico Border
Roll	your mouse over the mountain to the left and click when Wildfires appears
Click	Why are wildfires a concern? to the right of the illustration
Review	the information and close the pop-up window

Click [Home](#) in the top left corner to prepare for the next search

Exercise 3: Utilizing the alphabetic index, find information on crude oil.

Suggested Solution:

Click [A-Z Index](#)

Click [Crude Oil under Oil Spill](#)

Review the information

Click [the NLM logo](#) to prepare for the next search

15

NLM Gateway



The screenshot shows the NLM Gateway homepage. The header features the "NLM Gateway" logo and a subtext "A service of the U.S. National Institutes of Health". Below the header is a banner with the text "Your Entrance to Resources from the National Library of Medicine" and a collage of images showing people using computers and medical resources. The main content area has a yellow background and contains the text "Search multiple NLM resources. Learn [more](#)." Below this is a search bar with a "Search" button and a "Clear" button. A list of search tips follows: "Enter your search in the box above.", "Tips for searching by [topics](#), [authors](#), [titles](#) or searching [meeting_abstracts](#)". At the bottom of the page is a footer with links to "Contact Us", "U.S. National Library of Medicine", "National Institutes of Health", "Health & Human Services", "Expedited", "Copyright", "Accessibility", "Freedom of Information Act", and "USA.gov".

gateway.nlm.nih.gov

NLM Gateway

NLM Gateway is a Web-based system that lets users search simultaneously in multiple retrieval systems at the National Library of Medicine, including PubMed and MedlinePlus. The Gateway also provides a search interface for meeting abstracts.

topics, [authors](#), [titles](#) or searching [meeting abstracts](#)'. At the bottom of the page is a footer with links to 'Contact Us', 'U.S. National Library of Medicine', 'National Institutes of Health', 'Health & Human Services', 'Privacy', 'Copyright', 'Accessibility', 'Freedom of Information Act', and 'USA.gov'."/>

**Limits/
Settings**

**About, Help,
and FAQ**

gateway.nlm.nih.gov

Searching NLM Gateway

For a quick search, type your search term or phrase into the search box on the home page. Gateway processes search terms through a spell checker and offers suggested corrections.

To apply search limits and settings for results, downloading, and display, click Limits/Settings on the home page. Type your search term(s) into the search box and apply limits. Available search limits are English Only, Subsets, and Publication dates.

The list of collections that Gateway searches is arranged in three categories.

- **Bibliographic Resources** include MEDLINE/PubMed, Meeting Abstracts Developmental and Reproductive Toxicology (DART®), TOXLINE® subset, NLM Catalog, and the Bookshelf
- **Consumer Health Resources** include MedlinePlus, ClinicalTrials.gov, DIRLINE, Genetics Home Reference, and Household Products Database
- **Other NLM Resources** include Health Services Research Project (HSRProj.) Hazardous Substances Data Bank (HSDB®), Chemical Carcinogenesis Research Information System (CCRIS), Genetic Toxicology Data Bank (GENE-TOX), Integrated Risk Information System (IRIS), International Toxicity Estimates for Risk (ITER), Online Mendelian Inheritance in Man, and Profiles in Science

Search Results

When the search is completed, NLM Gateway displays a Results Summary page with the number of records found in each of the databases, listed by category. To explore the results category, click the desired database link.

Results Summary: 163766 records found		
Bibliographic Resources	Consumer Health Resources	Other Information Resources
85030 MEDLINE/PubMed - journal citations, abstracts	32 MedlinePlus - Health Topics	192 HSRProj - Health Services Research Projects
6939 NLM Catalog - books, AVs, serials	96 MedlinePlus - Drug Information	47 OMIM - Online Mendelian Inheritance in Man
1889 Bookshelf - full text biomedical books	45 MedlinePlus - Medical Encyclopedia	51 HSDB - Hazardous Substances Data Bank
5133 TOXLINE Subset - toxicology citations	28 MedlinePlus - Current Health News	0 IRIS - Integrated Risk Information System
143 DART - Developmental and Reproductive Toxicology	48 MedlinePlus - Other Resources	0 ITER - International Toxicity Estimates for Risk
59948 Meeting Abstracts	3639 ClinicalTrials.gov	
	3664 DIRLINE - Directory of Health Organizations	

My Locker

“My Locker” is a permanent place to store selected search items for printing, downloading, or ordering. A maximum of 500 items may be stored in the Locker. You must register and create a user ID and password to use the Locker. Registration is free.

Additional Resources

For further information, we recommend these additional resources:

- NLM Gateway Brochure
nnlm.gov/training/resources/gwtri.pdf
- NLM Gateway Training Manual
www.nlm.nih.gov/pubs/manuals/gwclintrials.doc



NLM Gateway Search Exercises

Search Example: Locate information on cardiovascular disease.

Suggested Solution:

- Go to gateway.nlm.nih.gov
- Type **cardiovascular disease** in the search box
- Click the **Search** button

The screenshot shows the NLM Gateway homepage. The search bar contains 'cardiovascular disease'. Below the search bar, instructions say 'Enter your search in the box above.' and 'Tips for searching by [topics](#), [authors](#), [titles](#) or searching [meeting abstracts](#)'. A 'Search' button and a 'Clear' button are visible.

- Review record(s) of your choice and close pop-up window
- Click **Home** at the top of the page to prepare for the next search

The screenshot shows the NLM Gateway results summary page. The search term 'cardiovascular disease' is in the search bar. The results summary states '1707924 records found'. The results are organized into three columns: Bibliographic Resources, Consumer Health Resources, and Other Information Resources. Each column lists various databases and their counts, such as MEDLINE/PubMed (1635240), ClinicalTrials.gov (15950), and HSDB (1753).

Exercise 1: Is there any evidence that the flu vaccine can cause an increase in viral loads?
 Limit the search to the AIDS subset. Review the MEDLINE/PubMed and ClinicalTrials.gov records.

Suggested Solution:

Type	flu vaccine viral loads in the search box
Click	the Limits/Settings link at the top left of the page
Select	<u>AIDS</u> from the subset pull-down menu and click “Apply”
Click	the Search button
Click	MEDLINE/PubMed – journal citations, abstracts under Bibliographic Resources
Review	citation(s) of your choice
Click	the Results to the left of the page to return to the results summary page

Click	<u>ClinicalTrials.gov</u> under Consumer Health Resources
Review	record(s) of your choice and close the pop-up window or click the browser's back button
Click	the checkbox next to Limits: AIDS
Click	the Clear button next to the search bar to prepare for the next search

Exercise 2: Can exposure to secondhand smoke cause respiratory diseases? Review record(s) of your choice in MEDLINE/PubMed and Health Services Research Projects.

Suggested Solution:

Type	secondhand smoke AND respiratory in the search box
Click	the Search button
Click	<u>MEDLINE/PubMed</u> under Bibliographic Resources
	 MEDLINE/PubMed results are from the medical literature
Review	record(s) of your choice
Click	<u>HSRProj</u> in the left sidebar under Other Resources
Review	record(s) of your choice
Click	Home at the top of the page and click the clear button to prepare for the next search

Exercise 3: I need to find information on hospice care. Limit the search to the Bioethics subset.

Suggested Solution:

Type	hospice care in the search box
Click	the Search button
Click	Limits/Settings at the top of the page
Select	<u>Bioethics</u> from the subset pull-down menu
Click	Apply
Click	the Search button
Review	record(s) of your choice

Additional Resources

Selected Internet Resources in Health

Agency for Healthcare Research and Quality

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 Health Information Management Association (AHIMA)

myphr.com

—Provides resources on how to access and understand your medical records.

American Medical Association

ama-assn.org

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

BioMed Central

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

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

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

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

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

cnn.com/HEALTH

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

Directory of Open Access Journals

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

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

www.fda.gov

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

Health Care Language Services Implementation Guide

hclsig.thinkculturalhealth.org

Guide to help health care organizations implement effective language access services to meet the needs of their patients with limited English proficiency.

Health Disparities/CDC

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

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

healthhotlines.nlm.nih.gov

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

Health Literacy

hrsa.gov/publichealth/healthliteracy

—The U.S. Department of Health and Human Services, Health Resources and Services Administration, offer this free online training for health providers titled *Unified Health Communication (UHC): Addressing Health Literacy, Cultural Competency, and Limited English Proficiency*.

Healthfinder

healthfinder.gov

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

Healthy People 2010

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

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

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 Library Association (MLA): Deciphering Medspeak

mlanet.org/resources/medspeak.index

—A resource created by MLA which translates common medical terms to help consumers make informed health decisions.

Medical Matrix

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

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

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 800 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®

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

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

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

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

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

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

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

nursingnet.org

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

Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services

health.gov/communication/literacy

—Provides consumers and patients with tools for improving health literacy and links to U.S. government Web sites for related resources.

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

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

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

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

store.samhsa.gov/home

—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

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

pubmed.gov

—One of the National Library of Medicine's free search services. It provides access to over 20 million citations in MEDLINE and about HIV/AIDS, with links to participating online journals.

Rural Assistance Center State Resources

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

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

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

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

aids.gov

AIDS.ORG

aids.org

AIDS Action Committee of Massachusetts

aac.org

AIDS Education Global Information System (AEGIS)

www.aegis.org

AIDS History Project

library.ucsf.edu/collections/archives/manuscripts/aids

AIDS Images Library

aids-images.ch

AIDS Information and Controversy 1985–1995

aidsinfobbs.org

AIDS InfoNet

aidsinfonet.org

AIDS Project Los Angeles

apla.org

AIDS Resource List

specialweb.com/aids

AIDS Treatment Data Network

atdn.org

AIDS Treatment News

thebody.com/content/art31573.html

AIDSinfo

aidsinfo.nih.gov

aidsinfonyc.org

aidsinfonyc.org

Aidsmap

aidsmap.com

All the Virology on the WWW
virology.net/garryfawweb.html

The Alternative Medicine Homepage
pitt.edu/~cbw/altm.html

American Foundation for AIDS Research (amfAR) Global Link
amfar.org/globallink

American Red Cross
redcross.org

Australian Federation of AIDS Organisations
aفاao.org.au

The Body
thebody.com

California AIDS Clearinghouse
lacaycenter.org

Canadian AIDS Treatment Information Exchange
catie.ca/eng

Canadian HIV Trials Network
www.hivnet.ubc.ca/e/home/

Center for AIDS Prevention Studies
caps.ucsf.edu

Centers for Disease Control and Prevention (CDC) HIV/AIDS
cdc.gov/hiv

Center for Mental Health Research on AIDS (CMHRA)
nimh.nih.gov/about/organization/dahbr/center-for-mental-health-research-on-aids/

Critical Path AIDS Project
critpath.org

GMHC on the Web Gay Men's Health Crisis
gmhc.org

Healthfinder.gov
healthfinder.gov

Health Resources and Services Administration (HRSA) HIV/AIDS Program:

Caring for the Underserved

hab.hrsa.gov

Health Services/Technology Assessment Text (HSTAT)

ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat

HIV Databases

hiv.lanl.gov/

HIV InSite

hivinsite.ucsf.edu

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

www.census.gov/ ipc/www/hivaidsn.html

HIV/AIDS Vaccines

www.niaid.nih.gov

HIVandHepatitis.com

hivandhepatitis.com

HIVdent (dental information)

www.hivdent.org

HIVpositive.com

hivpositive.com

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

orise.orau.gov/files/hctt/AIDSTreatment_revAug2009.pdf

International AIDS Society

www.iasociety.org

International Association of Physicians in AIDS Care

iapac.org

Johns Hopkins HIV Guide

www.hopkins-aids.edu

Joint United Nations Programme on HIV/AIDS

unaids.org

MedlinePlus AIDS

medlineplus.gov/aids

Medscape HIV/AIDS

medscape.com/hiv

National AIDS Treatment Advocacy Project (NATAP)

natap.org

National Clearinghouse for Alcohol and Drug Information

ncadi.samhsa.gov

National HIV/AIDS Clinicians' Consultation Center (NCCC)

nccc.ucsf.edu

National Institute of Allergy and Infectious Diseases (NIAID)

www.niaid.nih.gov

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

www.oar.nih.gov

National Library of Medicine HIV/AIDS Portal

sis.nlm.nih.gov/hiv.html

National Minority AIDS Council

nmac.org

National Prevention Information Network

cdcnpin.org

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

aidsnyc.org

NIAID Division of Acquired Immunodeficiency Syndrome

www.niaid.nih.gov/about/organization/daids/

Partners in Information Access for the Public Health Workforce—HIV

phpartners.org/hp/hiv.html

Positive.org

positive.org/Home

Project Inform

projinf.org

PubMed

pubmed.gov

PubMed Training Manual (NLM)

nlm.nih.gov/pubs/web_based.html

PubMed Tutorial (NLM)

nlm.nih.gov/bsd/disted/pubmedtutorial/

Rural Center for AIDS/STD Prevention

indiana.edu/~aids

San Francisco AIDS Foundation

sfaf.org

Social Security Administration

ssa.gov

The TB/HIV Research Laboratory at Brown University

research.brown.edu/research/labs.php

U.S. Department of Health and Human Services

aids.gov

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

www.fda.gov/ForConsumers

World Health Organization, Tuberculosis

who.int/tb/en/

Yahoo AIDS/HIV Resources

dir.yahoo.com/health/diseases_and_conditions/aids_hiv

Savvy Health Surfing

Questions to Ask About Health-related Web Sites



Authority and Accuracy

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

Coverage

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

Currentness

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

Objectivity

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

Design Features

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

Contacting the National Library of Medicine for Database Assistance

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

E-mail: custserv@nlm.nih.gov

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

Online Resources

Online Training Manuals	http://www.nlm.nih.gov/pubs/web_based.htm (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

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

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