

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 (<i>instructor demonstrations</i>)
11:30	 NIHSeniorHealth
12:00 p.m.	LUNCH
1:00	Introduction to NLM's Environmental Health and Toxicology Resources (<i>instructor demonstrations</i>)
1:30	 HSDB
2:00	 Household Products Database
2:15	TRI/TOXMAP and ToxTown (<i>instructor demonstrations</i>)
2:30	 The NLM Gateway
2:45	Questions/Post-Test
3:00	Class ends

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Introduction



<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

- ▶ **NIHSeniorHealth**—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

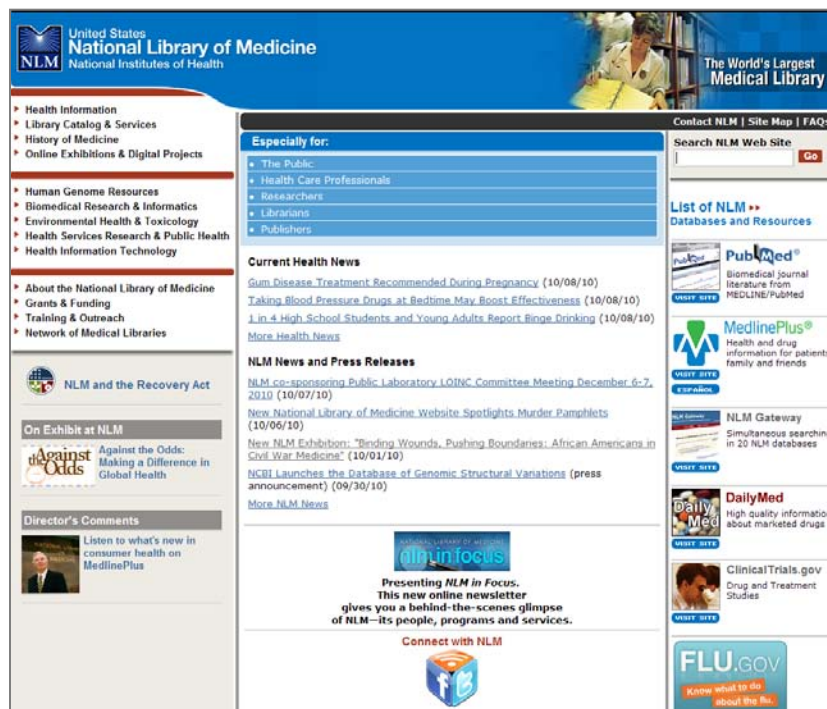
Finding Quality Health Information



<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



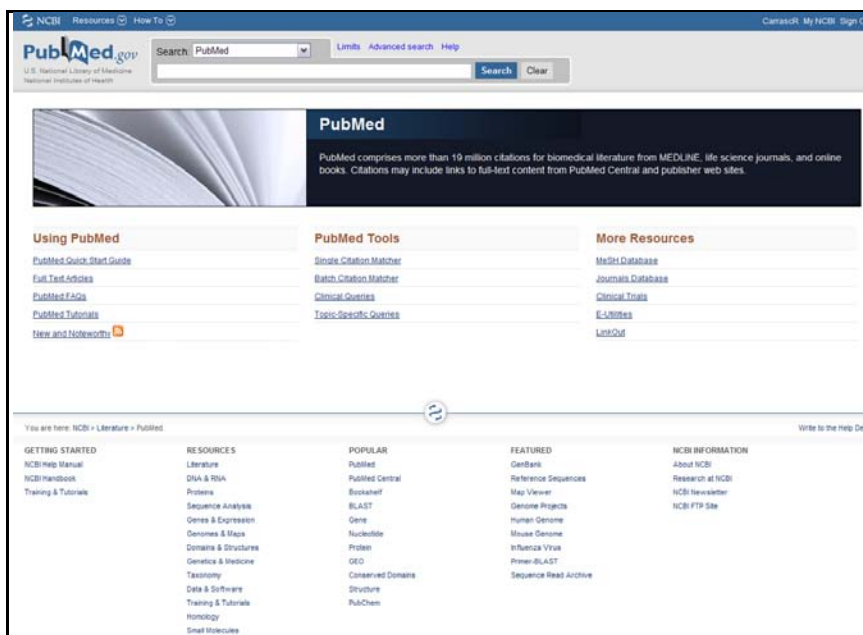
Savvy Health Surfing Exercises

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**, NLMs 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 key components highlighted by red lines and labels:

- NCBI Header:** The top navigation bar includes links for NCBI, Resources, and How To, along with a My NCBI Sign In link.
- Search Bar:** The main search area features a search box with the text 'PubMed', a dropdown menu, and buttons for 'Limits', 'Advanced search', 'Help', 'Search', and 'Clear'.
- Tools & Resources:** A central section titled 'PubMed' provides an overview of the database and lists various tools and resources, including:
 - Using PubMed:** PubMed Quick Start Guide, Full Text Articles, PubMed FAQs, PubMed Tutorials, and New and Noteworthy.
 - PubMed Tools:** Single Citation Matcher, Batch Citation Matcher, Clinical Queries, and Topic-Specific Queries.
 - More Resources:** MeSH Database, Journals Database, Clinical Trials, E-Utilities, and LinkOut.
- Links to NCBI resources:** A footer section titled 'You are here: NCBI > Literature > PubMed' provides links to various NCBI resources, including:
 - GETTING STARTED:** NCBI Help Manual, NCBI Handbook, and Training & Tutorials.
 - RESOURCES:** Literature, DNA & RNA, Proteins, Sequence Analysis, Genes & Expression, Genomes & Maps, Domains & Structures, Genetics & Medicine, Taxonomy, Data & Software, Training & Tutorials, and Homology.
 - POPULAR:** PubMed, Nucleotide, BLAST, PubMed Central, Gene, Bookshelf, Protein, OMM, Genome, SNP, and Structure.
 - FEATURED:** GenBank, Reference Sequences, Map Viewer, Genome Projects, Human Genome, Mouse Genome, Influenza Virus, Primer-BLAST, and Sequence Read Archive.
 - NCBI INFORMATION:** About NCBI, Research at NCBI, NCBI Newsletter, and NCBI FTP Site.

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

Languages

☐ English
☐ French
☐ German
☐ Italian
☐ Japanese

Species

☐ Humans
☐ Animals

Gender

☐ Male
☐ Female

Subsets

Journal Groups
☐ Core clinical journals
☐ Dental journals
☐ Nursing journals

Ages

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

Text Options

☐ Links to full text
☐ Links to free full text
☐ Abstracts

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/

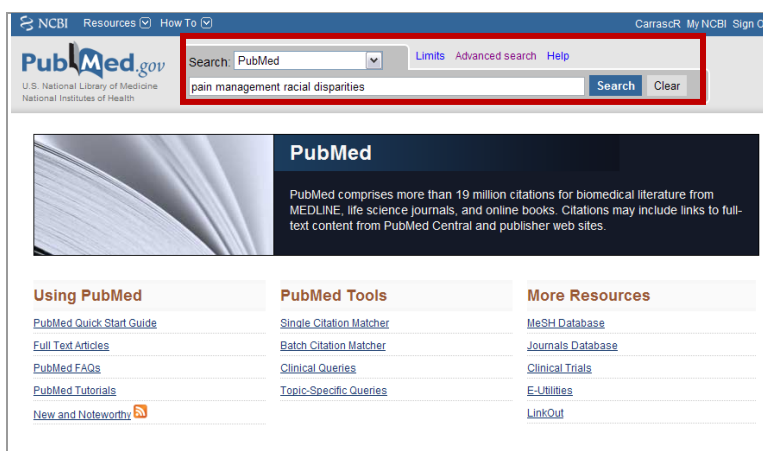


MEDLINE/PubMed Search Exercises

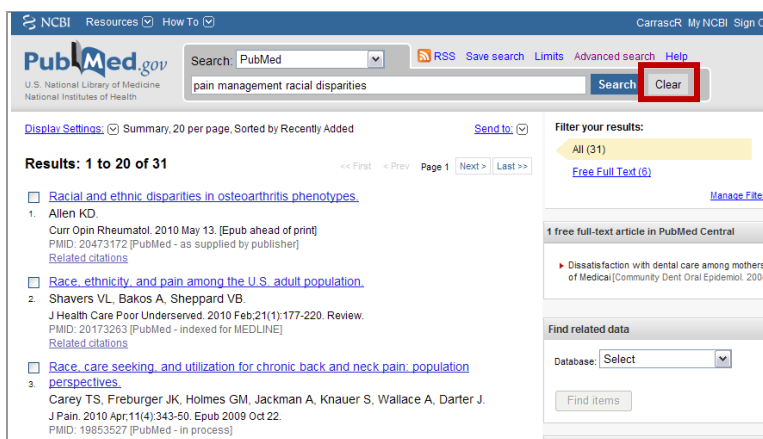
Search Example: Find articles on the relationship between pain management and racial disparities.

Suggested Solution:

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



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



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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MedlinePlus



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 shows the MedlinePlus homepage with several annotations:

- Spanish Version:** A red box highlights the "ESPAÑOL" button in the top navigation bar.
- Displays Current Topics and New Content:** A green box highlights the central banner area featuring various health topics like Anemia, Hypertension, Hypothyroid, Osteoporosis, etc., and a "Want to understand what your doctor is saying?" tutorial link.
- Frequently Visited Health Topic Pages:** A red box highlights the "About Your Health" section, which includes a medical dictionary, popular searches (diabetes, fibromyalgia, etc.), and featured sites.
- Tutorials, Calculators, Quizzes, and Games:** A red box highlights the "Videos & Cool Tools" button in the main navigation bar.
- Free Quarterly Magazine:** A red box highlights the "MAGAZINE" button in the bottom right corner.

The website URL **medlineplus.gov** is displayed at the bottom center.

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

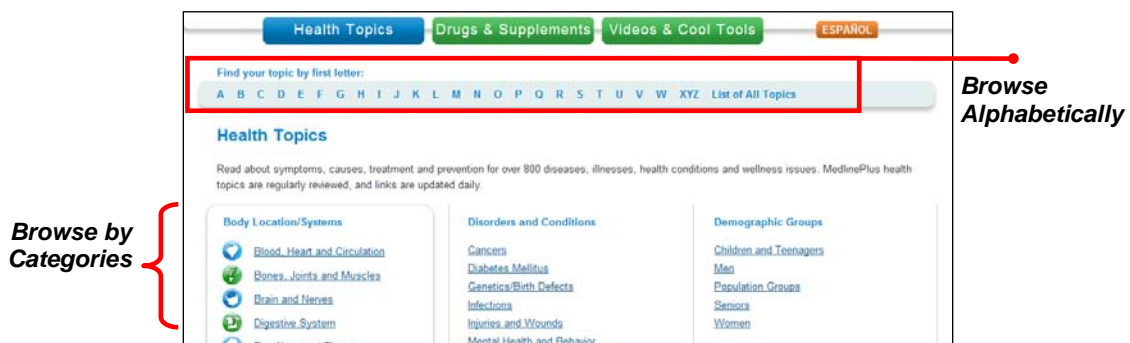
Searching MedlinePlus

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



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.



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:

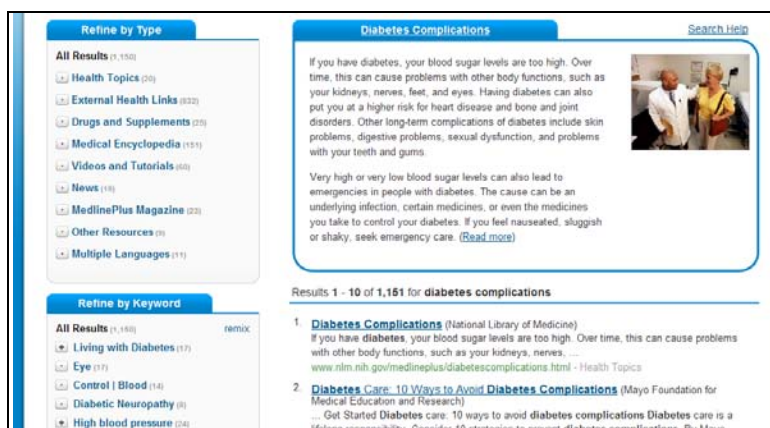
- Go to **medlineplus.gov**
- Type **diabetes complications** in the search box
- Click the **Go button**



- 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 | <u>Health Literacy</u> (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 Skin Conditions from the alphabetical list of topics
- Click Specific Conditions under **Learn More**
- Click Acanthosis Nigricans (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 **Women** under **demographic groups**
- Click Breast Cancer from the alphabetical list of topics
- Click Prevention/Screening under **Basics**
- Click Breast Cancer (PDQ): Prevention NIH (National Cancer Institute)
- Click Breast Cancer Prevention to the left of the page
- Review the information retrieved and close the pop-up window
- Click Breast Cancer (PDQ): Screening NIH (National Cancer Institute)
- Click Breast Cancer Screening 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 AIDS from the alphabetical list
- Click Children 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, Ginkgo, 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.

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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.

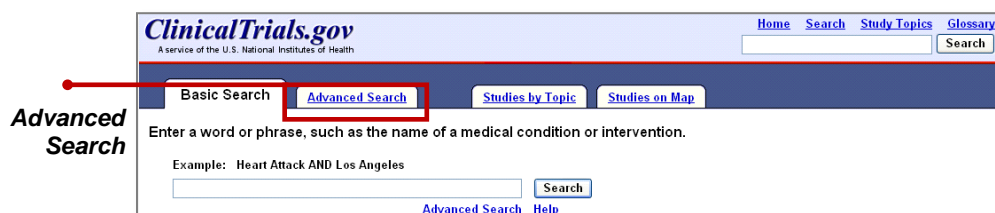


*Trials listed
by Study
Topic*

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.

Advanced Search Screen

List Results Screen

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

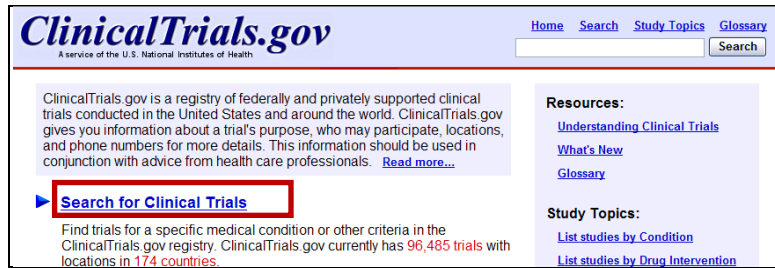


ClinicalTrials.gov Search Exercises

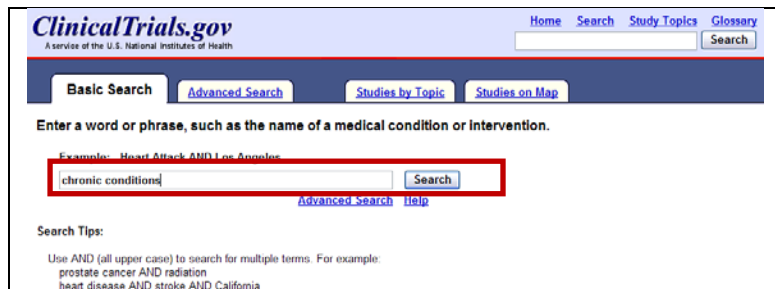
Search Example: Do any clinical trials focus on chronic conditions?

Suggested Solution:

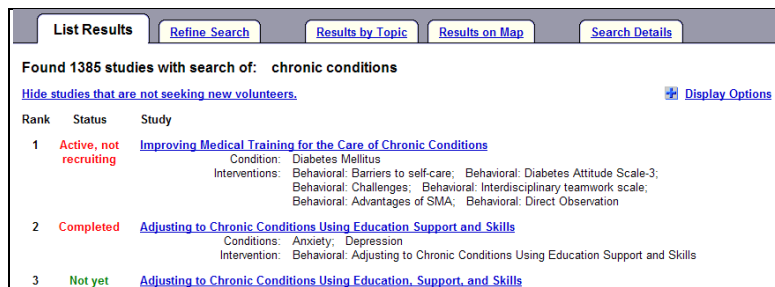
- Go to **clinicaltrials.gov**
- Click **Search for Clinical Trials**



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



- Review record(s) of your choice



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



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

Exercise 6: View recently added clinical trial studies.

Suggested Solution:

- Click **What's New** on the right side of the page
- Click [View studies first received in the] **last 14 days**
- Review record(s) of your choice
- Click **Search** 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 **Studies by Topic** tab
- Click **Alphabetic (A-Z)** under **Locations**
- Click **U** (for United States)
- Click your state
- Review record(s) of your choice
- Click **Search** in the header bar to prepare for the next search

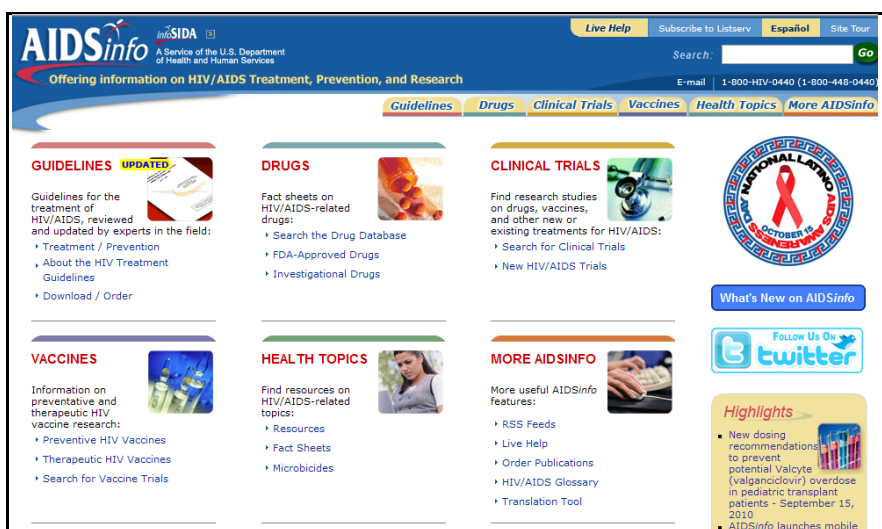
Suggested Solution #2:

- Click the **Results on Map** tab
- Click the United States on the map
- Click your state on the map or click the **studies** link for your state in the alphabetical list below the map
- Click **Search** in the header bar to prepare for the next search

Exercise 8: Locate a study of your choice.

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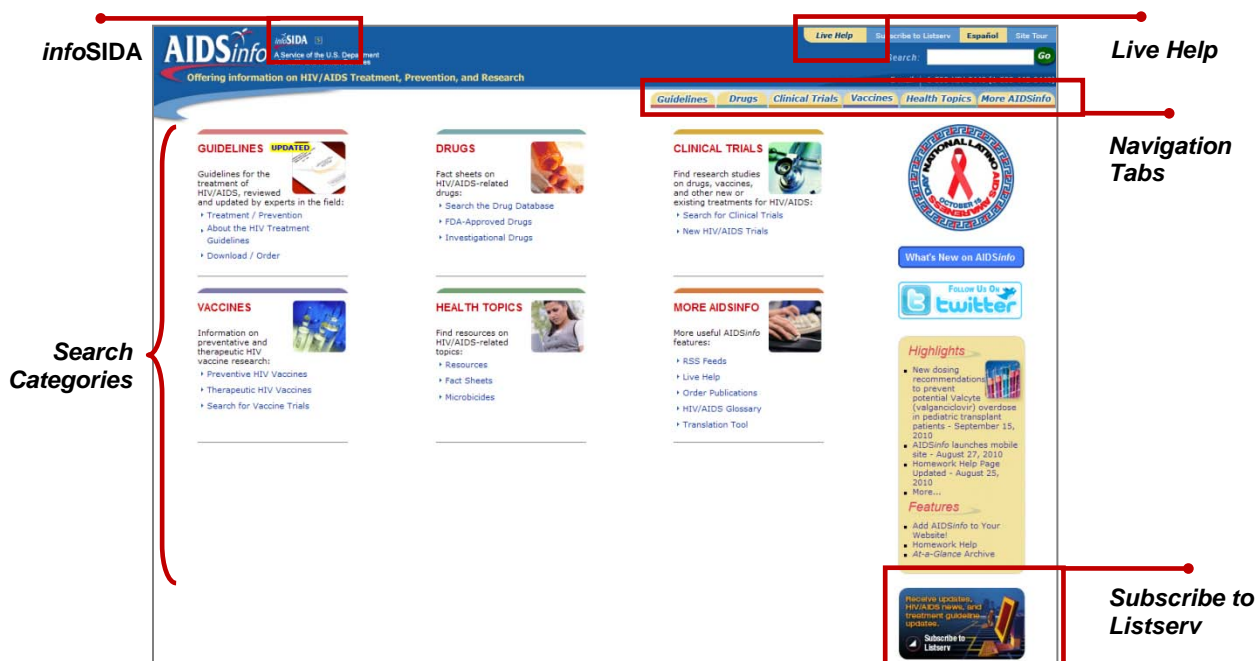
AIDSinfo



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.



<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
nmlm.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/

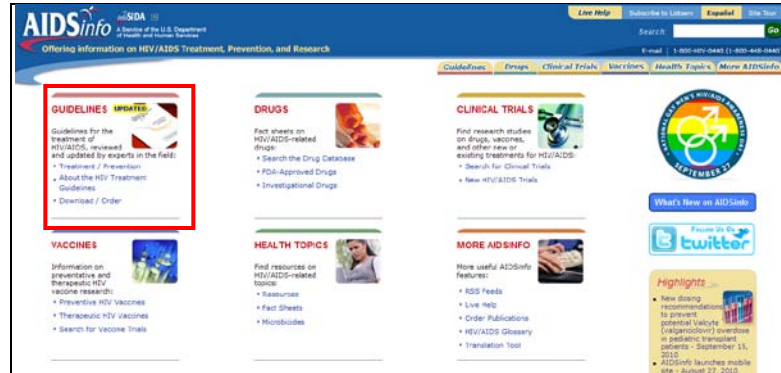


AIDSinfo Search Exercises

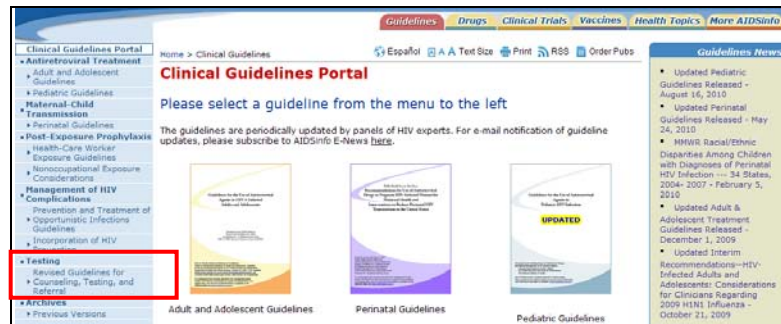
Search Example: Locate the latest guidance on HIV testing, counseling, and referral.

Suggested Solution:

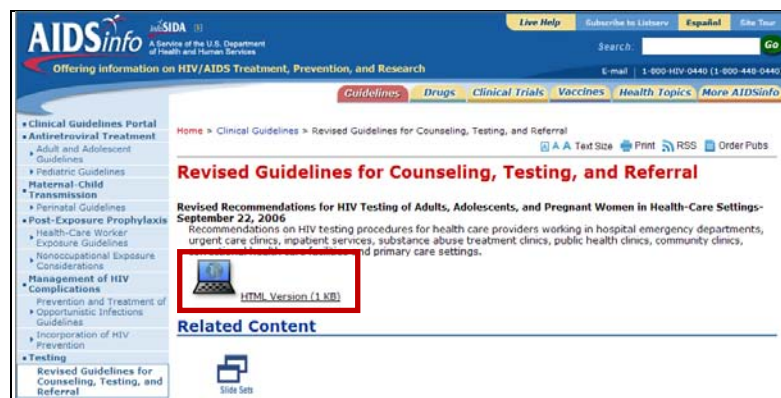
- Go to **aidsinfo.nih.gov**
- Click **GUIDELINES**



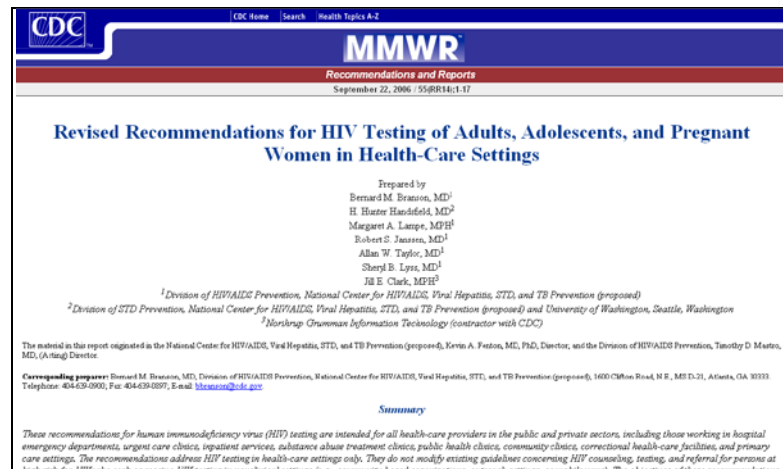
- Click Revised Guidelines for Counseling, Testing, and Referral under **Testing** in the menu bar to the left



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



- Review the document and close the CDC window



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 <i>Search the Drug Database</i> |
| 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 | <u>Specific Populations</u> |
| Click | <u>Older Adults</u> |
| 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 **Study Type**
- Click **Child (birth-17)** under **Age Group**
- 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.

Directory of Health Organizations
SIS Specialized Information Services

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[SIS Home >](#)

Search DIRLINE

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Search **Browse the Index**

Health Hotlines
Toll-free numbers for over 300 organizations

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

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

**A-Z List of Health
Organizations**

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:



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

Directory of Health Organizations
SIS Specialized Information Services

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

[SIS Home >](#)

Search DIRLINE

north carolina **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:

Health Hotlines
Toll-free numbers for over 300 organizations

Get the App

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

Directory of Health Organizations
SIS Specialized Information Services

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

DIRLINE Search Results [SIS Home](#) [DIRLINE](#)

north carolina Search Clear

Items 1 through 20 of 141
Organization Names are sorted in *relevancy ranked* order.

Pages: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#)

Select Record	Organization Name
<input type="checkbox"/> 1	North Carolina Biotechnology Center
<input type="checkbox"/> 2	North Carolina Museum of Natural Science - Department of Environment and Natural Resources - North Carolina State Government
<input type="checkbox"/> 3	North Carolina State Highway Patrol - North Carolina Department of Crime Control and Public Safety
<input type="checkbox"/> 4	North Carolina Utilities Commission
<input type="checkbox"/> 5	North Carolina National Guard - North Carolina Department of Crime Control and Public Safety
<input type="checkbox"/> 6	Pesticide Section - Food and Drug Protection Division - North Carolina Department of Agriculture and Consumer Services - North Carolina State Government

Save Checked Items
Sort
Details
History
Download
Modify Search
New Search
Browse Index
SIS Home
MEDLINEplus Home

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.

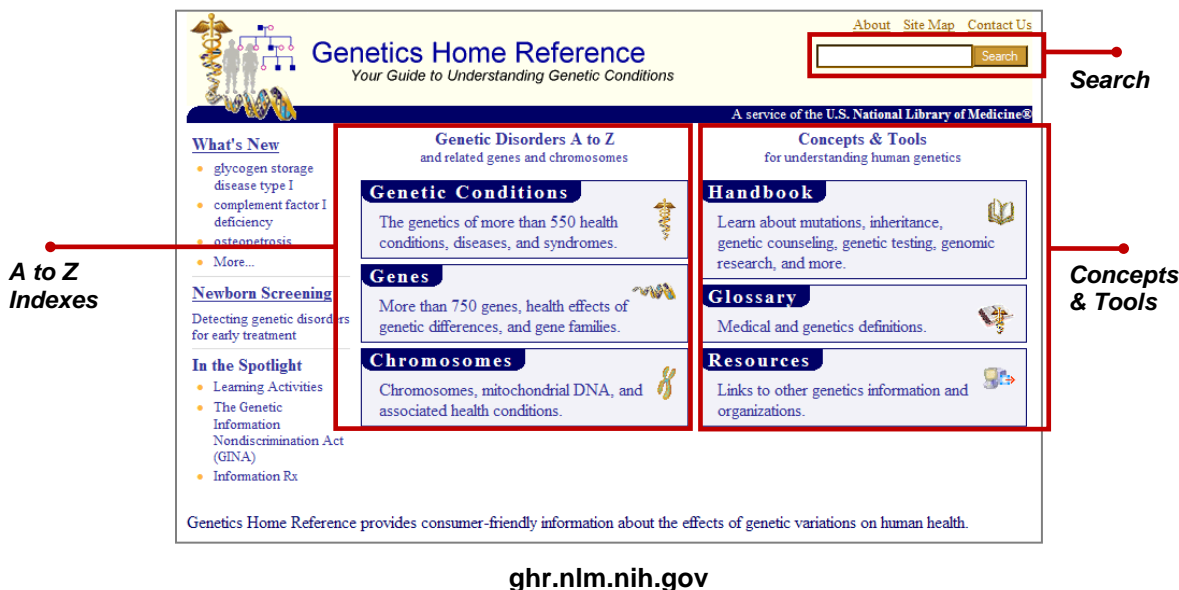
Suggested Solution:

- | | |
|--------|---|
| 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

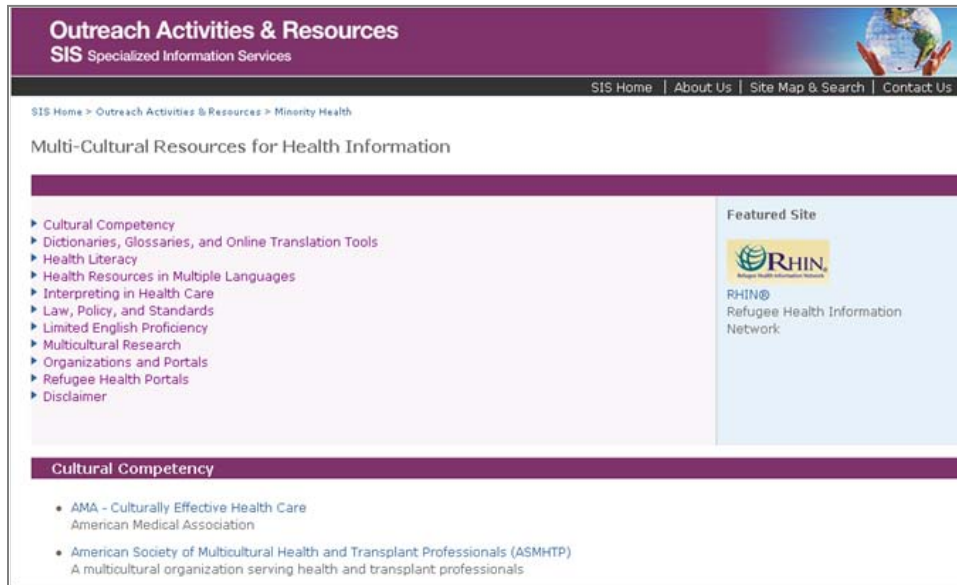
Links on the left side of the page provide access to a list of information recently added to the site (**What's New**), information on **Newborn Screening**, and additional information (**In the Spotlight**) including **Learning Activities** to help users learn about human genetics. Other information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

The screenshot shows the homepage of the Women's Health Resources website. A red line highlights the top navigation bar, which includes links for Health Topics, NIH Priorities, A-Z Index, News & Events, NIH Research Funding, Featured Topic, About, Site Map & Search, and Contact Us. A red box highlights the search bar, labeled "A-Z Index and Search Box". Another red box highlights the "Highlights" section, which features a graphic for gestational diabetes. A third red box highlights the "NIH Priorities" section, which lists various research areas like Life Span, Early Years, Gender Identity, etc. A fourth red box highlights the "NIH Research Funding" section, which lists various funding opportunities like Chronic Fatigue Syndrome, etc. The website also features a "Featured Topic" section for Gestational Diabetes and a "News & Events" section with various announcements.

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.

NIHSeniorHealth

[Skip Navigation](#) **Text Size:** [+](#) [-](#) **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).

Skip Navigation Text Size: + - 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

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

*-Adjust Text Size
-Change Contrast
-Turn Speech on and off*

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/accntHelp.html

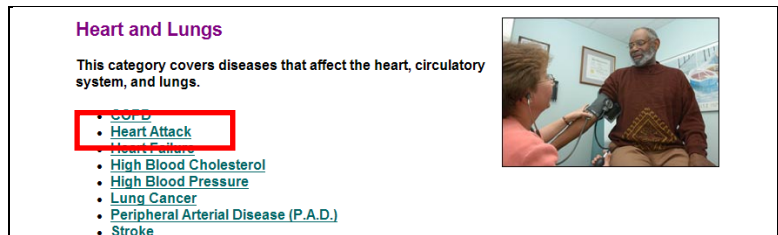
NIHSeniorHealth Search Exercises

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

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



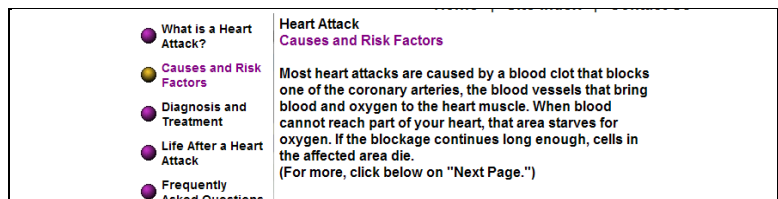
- Click **Heart Attack**



- Click **Causes and Risk Factors** under **Table of Contents**



- Review the information and close the NIH window



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




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

Suggested Solution:

- | | |
|--------|---|
| Click | <u>T</u> 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



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

- Find Information About...
- Especially For
- Search TOXNET® Databases
- Other Professional Resources
- Resources for the Public
- Enviro-Health Links
- Guides & Tutorials
- Quick Tours

Reference Tools & Additional Resources

- Search Our Web Site
- A to Z Index of Resources
- About TEHIP

Search all TOXNET Databases

Search TOXNET

TOXNET - Collection of databases on hazardous chemicals, toxic releases, and environmental health

(e.g. mercury, asbestos)

In the Spotlight

- Drug Information Portal
- Pillbox BETA
- LactMed
- Haz-Map
- Enviro-Health Links

Stay Connected

- Join the Listserv
- Subscribe to RSS
- Follow us on Twitter
- Bookmark and share

News & Events

- SIS News
- Calendar of Events

For Information About...

- Household Products Database**
Potential health effects of chemicals in common household products.
- Hazardous Substances Data Bank**
Covers human and animal toxicity, safety and handling, environmental fate, emergency handling procedures, regulatory requirements, and related areas.
- Toxicology Tutorials**
Tox Tutor and ToxLearn provide a working knowledge of basic toxicology principles. Written at the introductory college student level.

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 NLM's 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:**

United States National Library of Medicine

Dietary Supplements Labels Database
brands, ingredients, and references

Search **Search box**

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.

Pillbox^{BETA}
rapid identification, reliable information

United States
National Library of Medicine
National Institutes of Health

Home About FAQ API Feedback

Two ways to identify an unknown pill

Quick Search
(rapid identification, sort pills by color, shape, etc.)

Advanced Search
(includes searching by drug name, inactive ingredients, and more)

What?

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

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

How?

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

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

National Library of Medicine National Institutes of Health U.S. Dept. of Health & Human Services Copyright Accessibility

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.

United States
National Library of Medicine
National Institutes of Health

Search NLM Web Site
Go

NLM Home | Contact NLM | Site Map | FAQs

SIS Specialized Information Services

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

SIS Home >

Pathways for Public Health Information

Selected links to information on environmental health and toxicology, disasters, chemicals, drugs, and special populations

See our [Selection Criteria](#) to learn how we choose the materials for these guides

Enviro-Health Links	Disaster Health Links	Targeted Populations
<ul style="list-style-type: none"> ▶ Arsenic and Human Health ▶ Climate Change and Health ▶ Dietary Supplements ▶ Education, Careers and Outreach in Toxicology and Environmental Health ▶ Environmental Justice Internet Guide ▶ Imported (Chinese) Drywall ▶ Indoor Air Pollution ▶ Keeping the Artist Safe: Hazards of Arts and Crafts Materials ▶ Lead and Human Health ▶ Mercury and Human Health 	<ul style="list-style-type: none"> ▶ Animals in Disasters ▶ Biological Warfare ▶ Chemical Warfare ▶ Crude Oil Spills and Human Health ▶ Disaster Recovery and Environmental Health ▶ Earthquakes <ul style="list-style-type: none"> • Chile Earthquake • Health Resources for Haiti ▶ Floods ▶ H1N1 Flu (Swine Flu) ▶ Health Effects from the Collapse of the World Trade Center 	<ul style="list-style-type: none"> ▶ 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®) ▶ Women's Health Resources

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 website interface. Annotations with red lines point to specific features:

- Select a TOXNET database to search:** Points to the 'Select Database' column on the left, which lists various databases like ChemIDplus, HSDB, TOXLINE, etc., each with an information icon.
- Search All Databases:** Points to the 'Search All Databases' section in the center, which includes a search box and buttons for Search, Clear, and Help.
- Link to EH/Tox Portal:** Points to the 'Env. Health & Toxicology' section on the right, which features a 'Portal to environmental health and toxicology resources' link.
- Support Pages:** Points to the 'Support Pages' section on the right, which lists links for Help, TOXNET FAQ, TOXNET Update Status, Fact Sheet, Database Description, Training Manual & Schedule, and News.

At the bottom of the screenshot, the URL **toxnet.nlm.nih.gov** is displayed.

Click the information icon (i) 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).

TOXNET - Databases on toxicology, hazardous chemicals, environmental health, and toxic releases.

Select Database

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

Search All Databases

Enter term(s) to search all databases.

ammonia
(e.g. asthma air pollution, fever, vinyl chloride)

Search Clear

TOXNET Search Options

- Search all databases: Enter term(s)
- Search a specific database: Click on the database name
- Database description: Click on the database name

Search All Databases

ammonia Search Clear Help

(e.g. asthma air pollution, ibuprofen fever, vinyl chloride)

References from Biomedical Literature

Database	Description	Records
TOXLINE	Toxicology Literature Online	16563
DART	Developmental Toxicology Literature	285

Chemical, Toxicological, and Environmental Health Data

Database	Description	Records
ChemIDplus	Chemical Identification/Dictionary	1
HSDB	Hazardous Substances Data Bank	925
CCRIS	Chemical Carcinogenesis Information	1
CPDB	Carcinogenic Potency Database	0

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

(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

“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

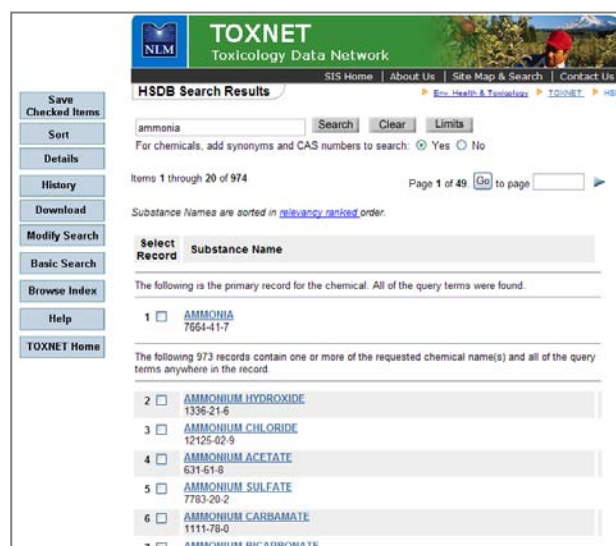
Browsing in TOXNET

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



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.)


The screenshot displays the HSDB (Hazardous Substances Data Bank) record for AMMONIA. The interface includes a top navigation bar with buttons for 'Next Item', 'Search Results', 'Basic Search', 'Details', 'Other Files', 'Modify Search', 'Download', 'Limits', 'Browse Index', and 'Help'. A sidebar on the left contains a 'Table of Contents' with expandable categories such as 'FULL RECORD', 'Human Health Effects', 'Emergency Medical Treatment', 'Animal Toxicity Studies', 'Metabolism/Pharmacokinetics', 'Pharmacology', 'Environmental Fate & Exposure', 'Environmental Standards & Regulations', 'Chemical/Physical Properties', 'Occupational Exposure Standards', 'Manufacturing/Use Information', 'Laboratory Methods', 'Special References', 'Synonyms and Identifiers', and 'Administrative Information'. The main content area shows the substance name 'AMMONIA' with its CASRN (7664-41-7) and a link to the 'Table of Contents'. Below this, the 'Human Health Effects' section is visible, followed by 'Human Toxicity Excerpts' which includes a detailed description of symptoms and a reference to Gosselin, R.E., et al. (1984). The bottom of the screen shows a status bar with 'Internet' and a small globe icon.

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	Search HSDB	Env. Health & Toxicology
<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	<div><input type="text"/></div> <div>(e.g. antifreeze kidney failure, chromium compounds, 7718-54-9)</div> <div>Search Clear Help</div> <div>For chemicals, add synonyms and CAS numbers to search: <input checked="" type="radio"/> Yes <input type="radio"/> No</div> <div>Limits Browse the Index</div>	<div>Portal to environmental health and toxicology resources VISIT SITE</div> <div>Support Pages<ul style="list-style-type: none">▶ Help▶ Fact Sheet▶ Sample Record▶ HSDB Scientific Review Panel▶ TOXNET FAQ</div>

Additional Resource

- CPDB

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.

The screenshot shows the TOXNET Toxicology Data Network homepage. The 'Hazardous Substances Data Bank (HSDB)' section is highlighted. The 'Search HSDB' form includes a search box, a 'Search' button, and a 'Limits' button. A red box highlights the 'Limits' and 'Browse the Index' buttons. A red arrow points from the text '-Limits -Browse the Index' to the 'Limits' button.

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.

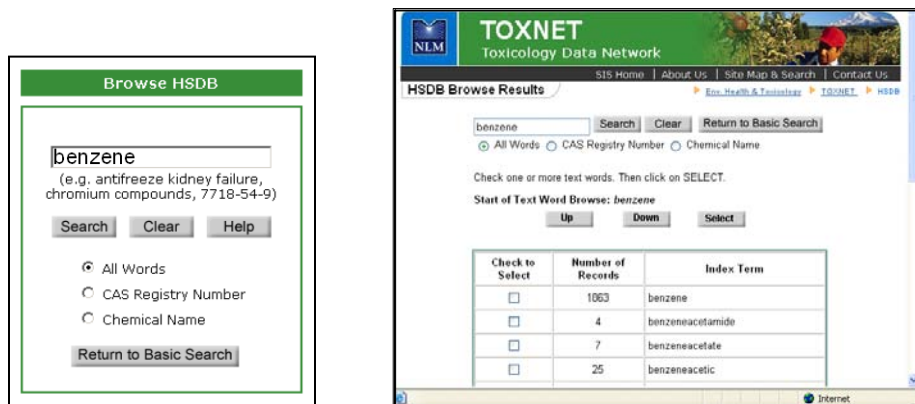
Use truncation (*), Boolean operators (AND, OR, NOT), phrase searching, nested parentheses, limits, and index browsing to refine your search results.

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)

The screenshot shows the 'Search HSDB' form. It includes a search box, a 'Search' button, and a 'Limits' button. Below the search box, there are options for 'Add chemical synonyms and CAS numbers to search' (Yes/No), 'Search' (exact words, singular & plural forms, word variants), 'Search records with' (the phrase, all words, any words), and 'Search in fields' (all fields, specific fields).

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.



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.

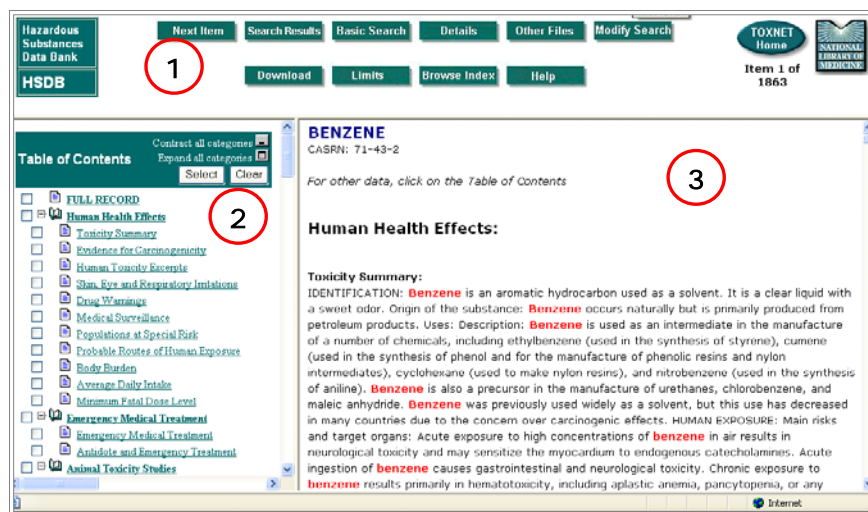
Primary Record

Other chemical records

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:

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















































































Contract all categories

Expand all categories

Contract/Expand all categories

Expanded Categories (All Fields)

- | | |
|---------------------------------------|--------------------------------------|
| Substance Identification | Emergency Medical Treatment |
| Chemical Names | Emergency Medical Treatment |
| CAS Registry Number | Antidote and Emergency Treatment |
| Human Health Effects | Animal Toxicity Studies |
| Toxicity Summary | Toxicity Summary |
| Evidence for Carcinogenicity | Evidence for Carcinogenicity |
| Human Toxicity Excerpts | Non-Human Toxicity Excerpts |
| Human Toxicity Values | Ecotoxicity Excerpts |
| Skin, Eye and Respiratory Irritations | National Toxicology Program Studies |
| Drug Warnings | Non-Human Toxicity Values |
| Medical Surveillance] | Ecotoxicity Values |
| Populations at Special Risk | Ongoing Test Status |
| Probable Routes of Human Exposure | TSCA Test Submissions |
| Body Burden | Metabolism/Pharmacokinetics |
| Average Daily Intake | Metabolism/Metabolites |
| Minimum Fatal Dose Level | Absorption, Distribution & Excretion |

 Biological Half-Life	 CERCLA Reportable Quantities
 Mechanism of Action	 RCRA Requirements
 Interactions	 Atmospheric Standards
 Pharmacology	 Clean Water Act Requirements
 Therapeutic Uses	 Federal Drinking Water Standards
 Drug Warnings	 Federal Drinking Water Guidelines
 Interactions	 State Drinking Water Standards
 Drug Idiosyncrasies	 State Drinking Water Guidelines
 Drug Tolerance	 Soil Standards
 Minimum Fatal Dose Level	 FDA Requirements
 Maximum Drug Dose	 Allowable Tolerances
 Bionecessity	
 Environmental Fate & Exposure	 Chemical/Physical Properties
 Environmental Fate/Exposure Summary	 Molecular Formula
 Probably Routes of Human Exposure	 Molecular Weight
 Body Burden	 Color/Form
 Average Daily Intake	 Odor
 Natural Pollution Sources	 Taste
 Artificial Pollution Sources	 Boiling Point
 Environmental Fate	 Melting Point
 Environmental Biodegradation	 Corrosivity
 Environmental Abiotic Degradation	 Critical Temperature & Pressure
 Environmental Bioconcentration	 Density/Specific Gravity
 Soil Adsorption/Mobility	 Dissociation Constants
 Volatilization from Water/Soil	 Heat of Combustion
 Environmental Water Concentrations	 Heat of Vaporization
 Effluent Concentrations	 Octanol/Water Partition Coefficient
 Sediment/Soil Concentrations	 pH
 Atmospheric Concentrations	 Solubilities
 Food Survey Values	 Spectral Properties
 Plant Concentrations	 Surface Tension
 Fish/Seafood Concentrations	 Vapor Density
 Animal Concentrations	 Vapor Pressure
 Milk Concentrations	 Relative Evaporation Rate
 Other Environmental Concentrations	 Viscosity
 Environmental Standards & Regulations	 Other Chemical/Physical Properties
 FIFRA Requirements	 Chemical Safety & Handling
 Acceptable Daily Intakes	 Hazards Summary
 TSCA Requirements	 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

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

Select Record **Substance Name**

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

1 ☐ **BISPHENOL A**
Synonym: bisphenol a
80-05-7

The following 56 records contain one or more of the requested chemical name(s) and all of the query terms anywhere in the record.

2 ☐ **BISPHENOL A DIGLYCIDYL ETHER**
1675-54-3

3 ☐ **BUTYL PARABEN**
01-26-3

- ▶ Review **Human Health Effects** information in the right frame

Hazardous Substances Data Bank

Next Item Search Results Basic Search Details Other Files Modify Search

Download Limits Browse Index Help

Table of Contents

- ☒ **FULL RECORD**
- ☐ Human Health Effects
- ☐ Human Toxicity Excerpts
- ☐ Skin, Eye and Respiratory Irritations
- ☐ Probable Routes of Human Exposure
- ☐ Body Burden
- ☐ Emergency Medical Treatment
- ☐ Amides and Emergency Treatment
- ☐ Animal Toxicity Studies
- ☐ Non-Human Toxicity Excerpts
- ☐ Ecotoxicity Excerpts

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 arising consequent to initial sensitisation to bisphenol-A-derived epoxy resins in plastics. [European Chemicals Bureau; European Union Risk Assessment Report, 4.4].

- 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 | <u>Human Health Effects</u> 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.

Household Products Database



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.

The screenshot shows the HPD website interface. On the left, a sidebar contains sections: 'Quick Search' with a search bar and a red box around 'Advanced Search'; 'Browse by Category' with a list of categories; 'Browse A-Z' with a list of product types; and 'Support' with various links. A red box is also around 'More Resources' at the bottom of the sidebar. On the right, a 'Navigation Toolbar' contains tabs for 'Home', 'Products', 'Manufacturers', 'Ingredients', and 'Health Effects'. The main content area features a grid of product categories with images and descriptions, including 'Auto Products', 'Inside the Home', 'Pesticides', 'Landscape/Yard', 'Personal Care', 'Home Maintenance', 'Arts & Crafts', 'Pet Care', and 'Home Office'. A red line connects the 'Advanced Search' link in the sidebar to the '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/conservation/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
toxnet.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**



- ▶ 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



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




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

Suggested Solution:

- | | |
|--------|---|
| Type | panthenol in the Quick Search box |
| Click | the Go button |
| Click | <u>Panthenol</u> 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 | <u>Inside the Home</u> 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 | <u>D</u> |
| Click | <u>diazinon</u> and view the list of products |

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

TRI and TOXMAP

toxnet.nlm.nih.gov

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.

The screenshot shows the TOXNET website interface. The 'Search TRI' section includes a text input for 'Chemical Name or CAS Registry Number' and a 'Search' button. Below this is a section for 'TRI Files' with a grid of checkboxes for each year from 1987 to 2008. The 'TRI' checkbox is selected. A red box highlights this grid, and a red arrow points from the text 'Select File Year(s)' to it.

toxnet.nlm.nih.gov

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

The screenshot shows the search criteria form. It includes fields for 'Facility Names', 'Facility Location' (with radio buttons for State, City/State, County/State, Zip), 'TRI Reporting Form Type' (with radio buttons for Both Form R and Form A, Form R only, Form A only), and 'Standard Industrial Classification Code'. There are also dropdowns for 'Greater Than' and 'for'.

- 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



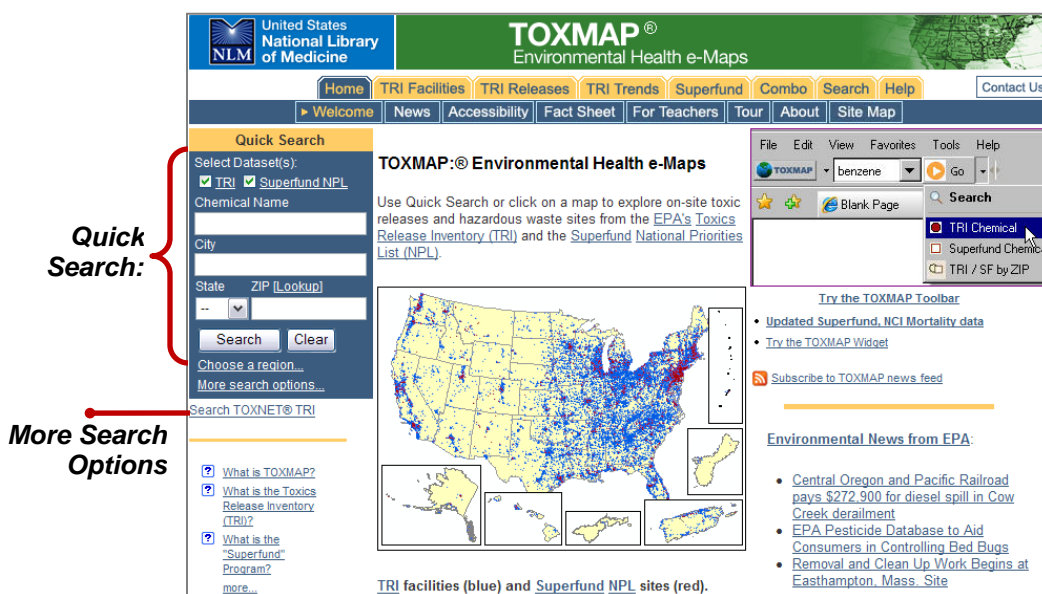
Additional Resources

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.



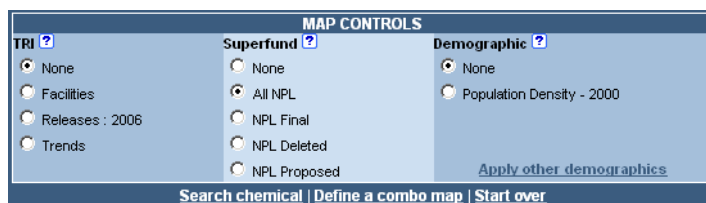
toxmap.nlm.nih.gov

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)



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 Comb Search Help Contact Us

Edit Search Display Map Set Region Other Data Download

What is the "Superfund" Program?
 What kinds of chemicals are found at Superfund sites?
 What is the "National Priorities List" (NPL)?
 Whom do I contact with questions and/or suggestions? more...

Search

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

CHOOSE A CHEMICAL

☐ Chemical:
☐ CAS RN:

☒

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 to
 Release Exceeds lbs.

NPL Site Name
 EPA ID
 NPL Status ☒ All
 ☐ Final
 ☐ Proposed
 ☐ Deleted
 Hazard Ranking System Score to

☒ 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.

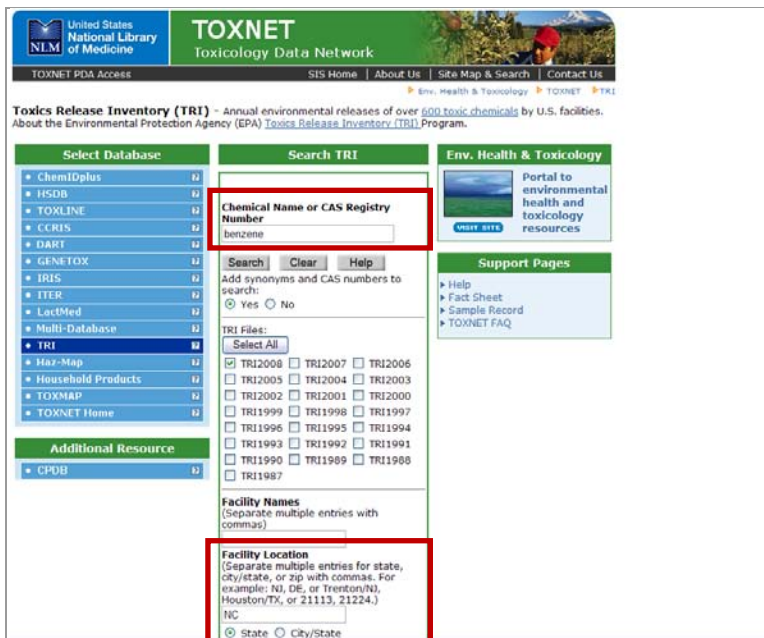


TRI/TOXMAP Search Exercises

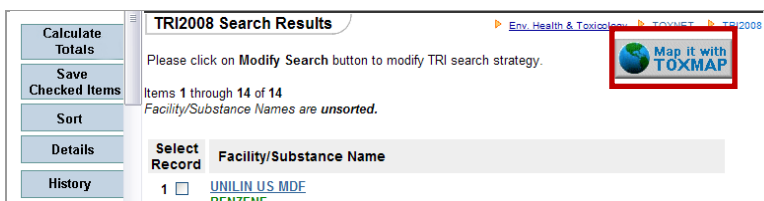
Search Example: Was any *benzene* released to the environment in North Carolina in 2008?
Map the releases in TOXMAP.

Suggested Solution:

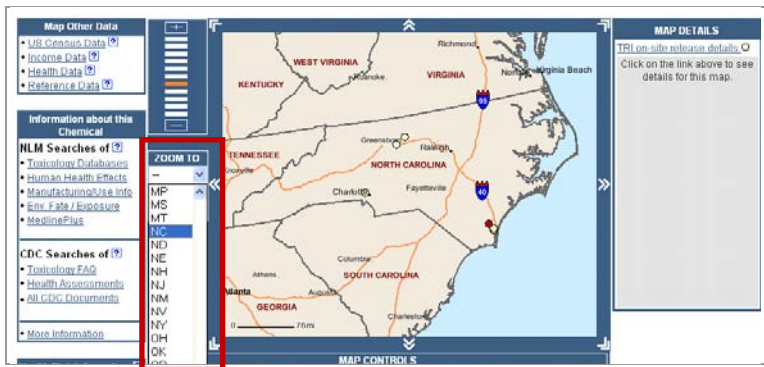
- Go to **toxnet.nlm.nih.gov**
- Click **TRI** in the **Select Database** column
- Type **benzene** in the Chemical Name or CAS Registry Number search box
-  TRI2008 is selected by default
- Type **NC** in the Facility Location search box
-  State is selected by default
- Click the **Search** button



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



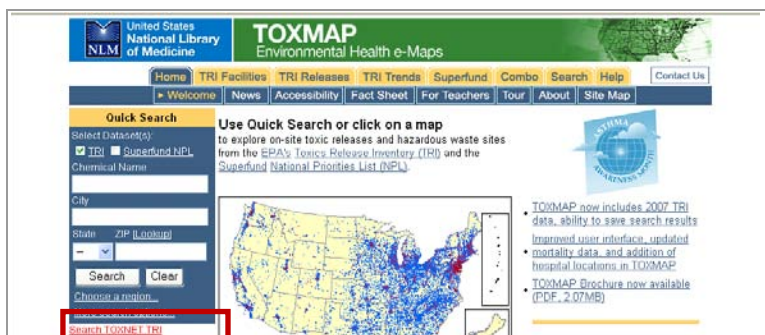
- Select **NC** from the **ZOOM TO** pull-down menu to the left of the map
- View the map



- 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	<u>Total Air Release</u> in the Table of Contents under <u>On-site Releases of Chemical</u>
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	<u>your state</u> from the ZOOM TO pull-down menu to the left of the map
Click	<u>TRI on-site release details</u> 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	<u>Human Health Effects</u> 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>U.S. Census Data</u> 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 <u>show values</u> 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

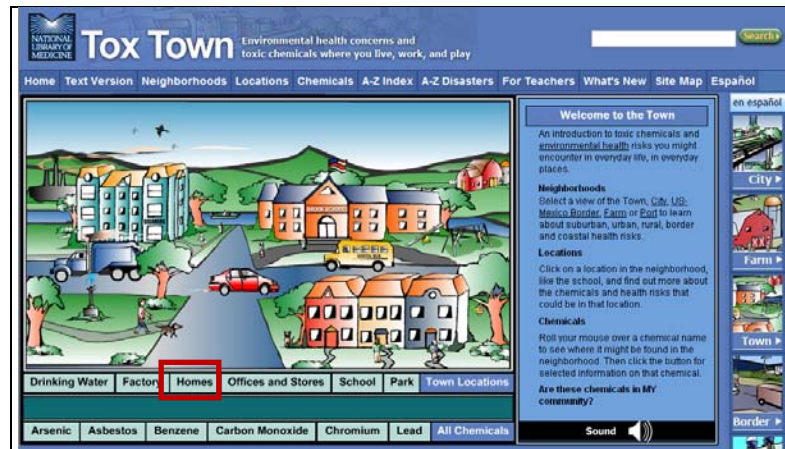
Search Example: Search the Town and find general information about molds.

Suggested Solution:

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



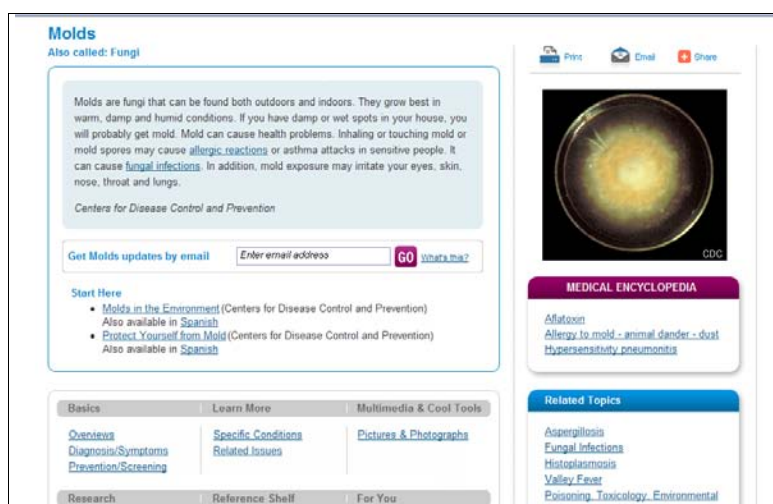
- Click Homes below the town scene



- 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

NLM Gateway



The screenshot shows the NLM Gateway website. At the top, there is a blue header with the text "NLM Gateway" and "A service of the U.S. National Institutes of Health". To the right of the header is a banner image showing four people in a meeting. Below the header is a red navigation bar with links: "Home", "Term Finder", "Limits/Settings", "About", "Help", and "FAQ". The main content area has a yellow background and contains the text "Search multiple NLM resources. Learn [more](#)." Below this is a search box with a "Search" button and a "Clear" button. Under the search box, there are two bullet points: "Enter your search in the box above." and "Tips for searching by [topics](#), [authors](#), [titles](#) or searching [meeting abstracts](#)." At the bottom of the page, there is a "Contact Us" link and a footer with links: "U.S. National Library of Medicine", "National Institutes of Health", "Health & Human Services", "Privacy", "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.

The screenshot shows the NLM Gateway homepage. A red line with arrows points from the 'Limits/Settings' link in the navigation bar to the left margin, and from the 'About', 'Help', and 'FAQ' links to the right margin. The main content area features a search box with 'Search' and 'Clear' buttons, and a list of links at the bottom.

NLM Gateway
A service of the U.S. National Institutes of Health

Your Entrance to Resources from the National Library of Medicine

Home Term Finder **Limits/Settings:** About Help FAQ

Search multiple NLM resources. Learn [more](#).

- Enter your search in the box above.
- Tips for searching by [topics](#), [authors](#), [titles](#) or searching [meeting abstracts](#).

[Contact Us](#)
[U.S. National Library of Medicine](#) | [National Institutes of Health](#) | [Health & Human Services](#)
[Privacy](#) | [Copyright](#) | [Accessibility](#) | [Freedom of Information Act](#) | [USA.gov](#)

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 screenshot shows the 'Limits and Settings' page. It has a search box at the top and a 'Search' button. Below the search box, there are tabs for 'Search Limits', 'Results Settings', 'Select Fields', and 'Download/Display'. The 'Search Limits' tab is active, showing options for 'English Only', 'Subsets', and 'Publication dates'. There are 'Apply', 'Save', and 'Restore Default' buttons at the bottom.

NLM Gateway
A service of the U.S. National Institutes of Health

Your Entrance to Resources from the National Library of Medicine

Home Term Finder Limits/Settings Search Details History My Locker About Help FAQ

Limits and Settings

Search Limits Results Settings Select Fields Download/Display

You may restrict (or limit) your searches by setting the limits below.

English Only ☐

Subsets

Publication dates (yyyy/mm/dd) from to (default is **all dates**)

Note: A setting entry will be ignored for collections that do not support it.

[Apply](#) [Save](#) [Restore Default](#)

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.

The screenshot shows the NLM Gateway search results page. At the top, the header reads "NLM Gateway" and "Your Entrance to Resources from the National Library of Medicine". Below the header is a navigation bar with links: Home, Term Finder, Limits/Settings, Search Details, History, My Locker, About, Help, and FAQ. A search bar contains the text "hiv aids" and a "Search" button. Below the search bar, the results summary states "Results Summary: 163766 records found" and includes a link "[Bookmark this Search]". The results are organized into three columns: Bibliographic Resources, Consumer Health Resources, and Other Information Resources. Each column lists various databases and the number of records found for each.

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	
	364 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
nlnm.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

NLM Gateway
A service of the U.S. National Institutes of Health
Your Entrance to Resources from the National Library of Medicine

Home Term Finder Limits/Settings About Help FAQ

Search multiple NLM resources. Learn [more](#).

cardiovascular disease [Search] [Clear]

• Enter your search in the box above.
• Tips for searching by [topics](#), [authors](#), [titles](#) or searching [meeting abstracts](#).

- 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

NLM Gateway
A service of the U.S. National Institutes of Health
Your Entrance to Resources from the National Library of Medicine

Home Term Finder Limits/Settings Search Details History My Locker About Help FAQ

cardiovascular disease [Search] [Clear]

Results Summary: 1707924 records found [Bookmark this Search]

Bibliographic Resources	Consumer Health Resources	Other Information Resources
1635240 MEDLINE/PubMed - journal citations, abstracts	40 MedlinePlus - Health Topics	177 Images from the History of Medicine
27810 NLM Catalog - books, AVs, serials	17 MedlinePlus - Drug Information	253 HSRProj - Health Services Research Projects
2143 Bookshelf - full text biomedical books	167 MedlinePlus - Medical Encyclopedia	124 OMIM - Online Mendelian Inheritance in Man
23415 TOXLINE Subset - toxicology citations	76 MedlinePlus - Current Health News	1753 HSDB - Hazardous Substances Data Bank
187 DART - Developmental and Reproductive Toxicology	11 MedlinePlus - Other Resources	13 IRIS - Integrated Risk Information System
353 Meeting Abstracts	15950 ClinicalTrials.gov	3 ITER - International Toxicity Estimates for Risk
	44 DIRLINE - Directory of Health Organizations	0 GENE-TOX - Genetic Toxicology (Mutagenicity)
	49 Genetics Home Reference	
	Results Household Products Database	

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	ClinicalTrials.gov 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	MEDLINE/PubMed under Bibliographic Resources
	 MEDLINE/PubMed results are from the medical literature
Review	record(s) of your choice
Click	HSRProj 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	Bioethics 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.govclinicaltrials.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 Healthcnn.com/HEALTH

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

Directory of Open Access Journalswww.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 Guidedocguide.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 Administrationwww.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 Guidehclsig.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/CDCcdc.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 Bibliographycdc.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

raonline.org/states

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

Virtual Hospital

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/garryfavweb.html

The Alternative Medicine Homepage

pitt.edu/~cbw/altm.html

American Foundation for AIDS Research (amfAR) Global Link

amfar.org/globalink

American Red Cross

redcross.org

Australian Federation of AIDS Organisations

afao.org.au

The Body

thebody.com

California AIDS Clearinghouse

lagaycenter.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/hivaidn.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](https://www.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

cdcpin.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>

Instructors	
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