

# Capacity Building for eHealth at HBCUs

**UNCF Special Programs Corporation**

Presents the

**9th Annual UNCFSP/NLM HBCU  
eHealth Conference**

June 7-8, 2010  
National Library of Medicine  
Bethesda, MD

June 9, 2010  
Howard University  
Washington, DC







# **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  
NLM-HBCU ACCESS Project

Presented at the  
9<sup>th</sup> Annual UNCFSP/NLM eHealth Conference:  
Capacity Building for eHealth at HBCUs

Howard University  
Washington, DC  
June 9, 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

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*The National Library of Medicine Capacity Building for eHealth at HBCUs* training course is designed specifically for the United Negro College Fund Special Programs Corporation's (UNCFSP) NLM-HBCU ACCESS Project. The purpose of the course is to provide UNCFSP eHealth conference participants with an introduction to NLM's free medical, environmental health, and toxicology information resources and other quality resources on the Internet. These resources provide invaluable tools to address the needs of community-based organizations who need the most accurate and up-to-date information on health issues related to exposure to hazardous substances in the environment, environmental agents known to induce illnesses, including cancer and health disparities, and the latest information on HIV/AIDS prevention, treatment, and research.

The National Library of Medicine (NLM) is sponsoring this class to increase awareness of the availability and value of NLM's free online medical, environmental health, and toxicology resources and other quality resources on the Internet.

Major emphasis will be placed on hands-on practice searching selected NLM resources with exercises using realistic scenarios. Demonstrations of other valuable NLM resources will be provided by the instructors.

This workbook was designed to be used as a reference following the class. It contains information on all resources covered in the class and exercises in searching the databases, as well as information on other quality Web sites selected for their relevance and content.



<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.



# Table of Contents

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Preface .....	iii
Agenda .....	viii
<b>Section 1: Introduction</b>	
Introduction .....	1
<b>Section 2: MEDLINE®/PubMed®</b>	
MEDLINE/PubMed.....	7
MEDLINE/PubMed Search Exercises .....	11
Saving and Printing Records in PubMed.....	15
<b>Section 3: MedlinePlus®</b>	
MedlinePlus .....	21
MEDLINE and MedlinePlus: What is the Difference? .....	24
MedlinePlus Search Exercises.....	25
<b>Section 4: ClinicalTrials.gov</b>	
ClinicalTrials.gov.....	31
ClinicalTrials.gov Search Exercises .....	33
<b>Section 5: AIDSinfo®</b>	
AIDSinfo .....	39
AIDSinfo Search Exercises .....	42
<b>Section 6: DIRLINE®</b>	
DIRLINE .....	51
DIRLINE Search Exercises .....	53
<b>Section 7: More Health Information Resources</b>	
Genetics Home Reference.....	57
Multi-Cultural Resources for Health Information.....	58
NIHSeniorHealth.....	59
Women’s Health Resources.....	60

<b>Section 8:</b>	<b>Introduction to the NLM Environmental Health and Toxicology Resources</b>	
	The NLM Environmental Health and Toxicology Portal .....	63
	Drugs and Dietary Supplements Suite .....	64
	Enviro-Health Links.....	67
	Special Populations .....	68
	What Is TOXNET? .....	69
	Basic Searching in TOXNET.....	70
<b>Section 9:</b>	<b>Hazardous Substances Data Bank (HSDB®)</b>	
	HSDB .....	75
	HSDB Limits Search Fields.....	78
	HSDB Search Exercises.....	81
<b>Section 10:</b>	<b>Household Products Database</b>	
	Household Products Database .....	87
	Household Products Database Search Exercises .....	89
<b>Section 11:</b>	<b>Haz-Map®</b>	
	Haz-Map.....	93
	Haz-Map Search Exercises .....	95
<b>Section 12:</b>	<b>TOXMAP®</b>	
	TRI .....	101
	TOXMAP .....	104
	TRI/TOXMAP Search Exercises .....	107
<b>Section 13:</b>	<b>Tox Town® and ToxMystery®</b>	
	Tox Town.....	113
	Tox Town Search Exercises .....	114
	ToxMystery.....	117
<b>Section 14:</b>	<b>The NLM Gateway</b>	
	The NLM Gateway.....	121
	NLM Gateway Search Exercises .....	124
<b>Section 15:</b>	<b>Additional Resources</b>	
	Selected Internet Resources in Health.....	127
	Selected Internet Resources in HIV/AIDS.....	134

**Appendix: Navigating the Web for Health Information: Tools for Success**

Finding Quality Health Information on the Internet .....	A-1
Savvy Health Surfing Exercises .....	A-3
Savvy Health Surfing ( <i>a pull-out reference card</i> ).....	( <i>final page</i> )

## Agenda

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- 9:00 a.m. Welcome and Introductions
- 9:10 MEDLINE/PubMed (🖱)
- 9:45 MedlinePlus (🖱)
- 10:15 ClinicalTrials.gov (🖱)
- 10:45 BREAK
- 11:00 AIDSinfo (🖱)
- 11:25 DIRLINE and NLM Gateway (🖱)
- 11:40 More Health Information Resources:  
*Genetics Home Reference, Multi-Cultural Resources for Health Information, NIH Senior Health, Women's Health Resources*
- 12:00 p.m. LUNCH
- 1:00 The NLM Environmental Health and Toxicology Resources  
*Environmental Health & Toxicology Portal, Dietary Supplements Labels Database, Drug Information Portal, Pillbox<sup>BETA</sup>, Enviro-Health Links, Special Populations: Emergency and Disaster Preparedness, TOXNET/Basic Searching*
- 1:25 HSDB (🖱)
- 1:45 Household Products Database (🖱)
- 2:00 HazMap (🖱)
- 2:20 TRI and TOXMAP (🖱)
- 2:40 Tox Town (🖱) and ToxMystery
- 2:50 The NLM Gateway
- 3:15 Questions/Post-test
- 3:30 Class Ends

(🖱) Indicates hands-on practice (Other resources will be demonstrated.)

# Introduction

The screenshot shows the homepage of the National Library of Medicine (NLM). The header features the NLM logo and the text "United States National Library of Medicine National Institutes of Health" and "The World's Largest Medical Library". Navigation links include "Contact NLM | Site Map | FAQs".

**Especially for:**

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

**Current Health News**

- [Daytime Nap Has Benefits Beyond Rest for Kids](#) (06/09/09)
- [Exercise, Education Keep You Sharp in Old Age](#) (06/09/09)
- [Still Too Few Women in Cancer Trials](#) (06/09/09)
- [More Health News](#)

**NLM News and Press Releases**

- [Medicare Information for Caregivers Now Available on NIHSeniorHealth](#) (05/13/09)
- [The 2009-2010 NLM Associate Fellows Announced](#) (05/06/09)
- [NLM co-sponsoring Public Laboratory LOINC Workshop & Committee Meeting June 15-16, 2009](#) (05/01/09)
- [National Library of Medicine Launches New Web Pages on 2009 H1N1 Flu](#) (04/28/09)
- [More NLM News](#)

**Search NLM Web Site**

**List of NLM Databases and Resources**

- PubMed**: Biomedical journal literature from MEDLINE/PubMed
- MedlinePlus**: Health and drug information for patients, family and friends
- Tox Town**: Interactive guide to common toxic chemicals, your health, and the environment
- PubMed Central**: Free archive of life sciences journals

**On Exhibit at NLM**

**Against the Odds: Making a Difference in Global Health**

**Director's Comments**

Listen to what's new in

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



## Introduction

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### 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 class will enable representatives of HBCUs and their communities to effectively train others on the utilization of NLMs resources in an effort to improve health literacy with regards to HIV/AIDS, obesity, hypertension, and good physical and mental health, thereby reducing 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 in order to find disease prevention and wellness information
- Apply the skills and knowledge obtained in this course to their campus curricula and local communities

### Why the National Library of Medicine?

The NLM is the world's largest biomedical library and part of the National Institutes of Health. The health information that NLM makes available on the Internet is free, easily and quickly accessible, and of the highest quality and reliability.

### NLM Online Resources Covered in this Class

The following key medical information resources will be covered in depth with time given for hands-on practice:

- **MEDLINE/PubMed**—access to more than 19 million references to journal articles published in 5,200 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**—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 treatment guidelines for health care professionals as well as additional information on treatment, prevention and research for both health care providers and consumers
- **DIRLINE**—an online directory of more than 8,500 health-related organizations offering information and referral for many diseases and conditions

The following medical information resources will be demonstrated:

- **Genetics Home Reference**—consumer information about genetic conditions and the genes or chromosomes related to 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
- **NIHSeniorHealth**—an easy-to-use Web site from the National Institutes of Health featuring health and wellness information for older adults—includes buttons to adjust text size and color, and to read text aloud
- **Women’s Health Resources**—selected links to Internet resources of special interest to women based on current research priorities

The following key environmental health information resources will be covered in depth with time given for hands-on practice:

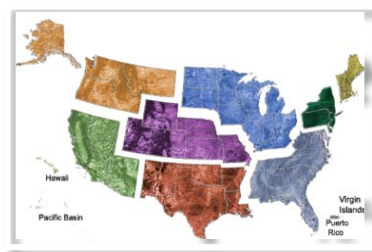
- **Hazardous Substances Data Bank (HSDB)**—comprehensive, peer-reviewed toxicological data for over 5,000 chemicals
- **Household Products Database**—human health effects information on over 9,000 brand-name consumer products
- **Haz-Map**—an occupational toxicology database that links job tasks to occupational diseases and their symptoms
- **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**—a Geographic Information System that uses maps of the United States to help users identify ethnic populations living within areas of toxic releases
- **Tox Town**—an interactive guide to commonly encountered toxic substances and environmental health risks
- **NLM Gateway**—a Web-based search interface that allows users to search simultaneously in multiple NLM retrieval systems, providing “one-stop searching” for many of NLM’s information resources and databases

The following environmental health information resource will be demonstrated:

- **Dietary Supplements Labels Database**—information from the labels of more than 4,000 brands of dietary supplements in the marketplace
- **Drug Information Portal**—current information on more than 17,000 selected drugs from their entry into clinical trials through entry into the marketplace
- **Enviro-Health Links**—selected links to Internet resources on toxicology and environmental health issues of recent special interest

## NLM Database Assistance

Please refer to the inside back cover of this workbook for valuable information on NLM database assistance from the NLM online, by phone, and by e-mail as well as information on contacting your National Network of Libraries of Medicine (NN/LM) Regional Medical Library. The regional libraries work closely with NLM to provide equal access to biomedical information. The map to the right illustrates the 8 regions of the NN/LM.



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# MEDLINE/PubMed

The screenshot shows the PubMed.gov website. At the top, there is a navigation bar with "NCBI Resources" and "How To" links. The main header features the PubMed logo and a search bar with "PubMed" entered. Below the search bar, there is a section titled "PubMed" with a description: "PubMed comprises more than 19 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites." Below this, there are three columns of links: "Using PubMed" (including Quick Start Guide, Test Articles, FAQs, Tutorials, and New and Noteworthy), "PubMed Tools" (including Citation Matcher, Batch Citation Matcher, Clinical Queries, and Topic-Specific Queries), and "More Resources" (including Medline Database, Journals Database, Clinical Trials, E-Utilities, and LinkOut). At the bottom, there is a "You are here" breadcrumb trail and a "Write to the Help Desk" link. The footer contains several columns of links: "GETTING STARTED" (NCBI Help Manual, NCI Handbook, Training & Tutorials), "RESOURCES" (Literature, DNA & RNA, Proteins, Sequence Analysis, Genes & Expression, Genomes & Maps, Domains & Structures, Genetics & Medicine, Taxonomy, Data & Software, Training & Tutorials, Homology, Small Molecules), "POPULAR" (PubMed, PubMed Central, Biochain, BLAST, Genes, Nucleotide, Protein, GEO, Conserved Domains, Structure, PubChem), "FEATURED" (GenBank, Reference Sequences, Map Viewer, Genome Projects, Human Genome, Mouse Genome, Influenza Virus, Primer-BLAST, Sequence Read Archive), and "NCBI INFORMATION" (About NCBI, Research at NCBI, NCBI Newsletter, NCBI FTP Site).

<http://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. Since 1996, free access to MEDLINE has been available to the public online via PubMed.

The screenshot shows the PubMed website interface. At the top, there is a navigation bar with 'NCBI', 'Resources', and 'How To' menus. A search bar is prominently displayed with 'PubMed' entered. Below the search bar, a large banner for PubMed is shown, followed by three columns of links: 'Using PubMed', 'PubMed Tools', and 'More Resources'. At the bottom, there is a 'You are here' breadcrumb trail and a grid of category links including 'GETTING STARTED', 'RESOURCES', 'POPULAR', 'FEATURED', and 'NCBI INFORMATION'.

<http://pubmed.gov>

### About MEDLINE

PubMed provides access to MEDLINE, NLM's premier bibliographic database containing citations and author abstracts from approximately 5,200 biomedical journals published in the United States and worldwide. PubMed also provides access to citations for selected articles in life science journals not included in MEDLINE and additional relevant Websites and links to molecular biology resources.

### Content

The scope of MEDLINE includes such diverse topics as microbiology, delivery of health care, nutrition, pharmacology and environmental health. Categories covered in MEDLINE include everything from anatomy, organisms, diseases, psychiatry, and psychology to the physical sciences. Coverage extends back to 1948.

## PubMed Home Page

The NCBI Header includes an 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.

Access to popular tools and resources may be found under PubMed Tools (e.g., Single Citation Matcher and Clinical Queries) and More Resources (e.g., MeSH Database, PubMed Tutorials, and Journals Database).

The screenshot shows the PubMed Home Page with several key features highlighted by red boxes and labels:

- Search Box:** Located at the top left, containing a search input field with "PubMed" entered, a dropdown menu, and "Search" and "Clear" buttons.
- Using PubMed:** A section on the left side of the main content area containing links to "PubMed Quick Start Guide", "Full Text Articles", "PubMed FAQs", "PubMed Tutorials", and "New and Noteworthy".
- PubMed Tools:** A central section containing links to "Single Citation Matcher", "Batch Citation Matcher", "Clinical Queries", and "Topic-Specific Queries".
- More Resources:** A section on the right side of the main content area containing links to "MeSH Database", "Journals Database", "Clinical Trials", "E-Books", and "LinkOut".
- My NCBI:** Located in the top right header area, containing "My NCBI" and "Sign Out" links.
- Footer:** A bottom section containing a grid of resource categories: "GETTING STARTED", "RESOURCES", "POPULAR", "FEATURED", and "NCBI INFORMATION".

## 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—NLM's 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.

Click the Advanced Search to limit your search by full text or free full text, and abstracts; dates published or added to PubMed; humans or animals (studies); gender; languages; publication types; age group; and more.

The screenshot displays the PubMed website's search interface. At the top, there are navigation links for 'NCBI Resources' and 'How To'. The main search area features a search type dropdown set to 'PubMed' and a search box containing the text 'hurricane katrina'. A red circle highlights the 'Advanced search' link. Below the search bar, there are three main sections: 'Search Builder' with a dropdown for 'All Fields' and an 'Index' button; 'Search History' with a 'Search History Instructions' link; and 'More Resources' with links to 'MeSH Database', 'Journals Database', 'Single Citation Matcher', 'Clinical Queries', and 'Topic-Specific Queries'. The footer contains a grid of links for 'GETTING STARTED', 'RESOURCES', 'POPULAR', 'FEATURED', and 'NCBI INFORMATION'.

## 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:

- Links to related articles for all citations—click the [Related Articles](#) 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

Loansome Doc is an automated document ordering program that allows you to order the full text of an article from a Loansome Doc participating library. To access this feature, click **Send to:** on your Search Results page. Under Choose Destination select Order then click on Order articles. Users must register to use this service.

## Additional Resources

For further information, we recommend these additional resources:

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

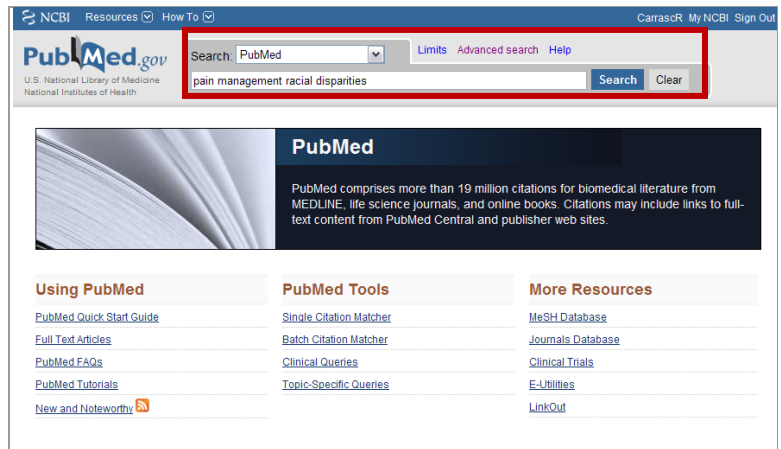


# MEDLINE/PubMed Search Exercises

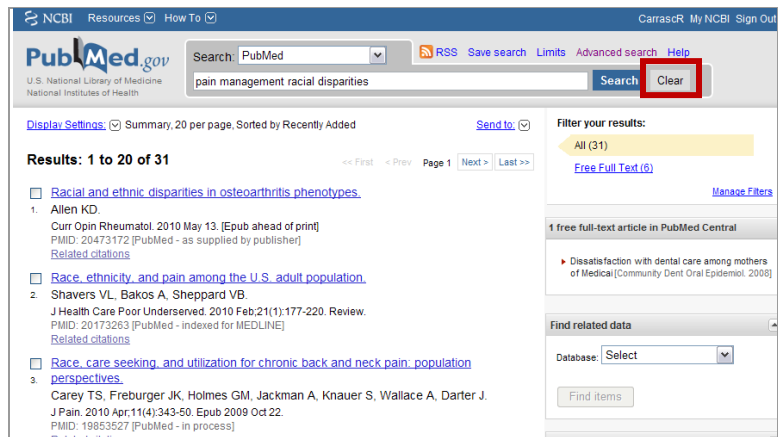
**Search Example: Find articles on the relationship between pain management and racial disparities.**

Suggested Solution:

- ▶ Go to <http://pubmed.gov>
- ▶ Type **pain management racial disparities** in the search box
- ▶ Click **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 increased disability in elderly women with diabetes.**

Suggested Solution #1:

- |        |  |
|--------|--|
| Type   | <b>disability elderly women diabetes</b> in the search box |
| Click  | the <b>Search</b> button                                   |
| Review | the citation(s) retrieved                                  |

## Suggested Solution #2:

- |        |  |
|--------|--|
| Type   | <b>disability diabetes</b> in the search box   |
| Click  | on Limits  |
| Click  | the box “Female” under <b>Gender</b>   |
| Click  | the box “Aged: 65+ years” under <b>Ages</b>  |
| Click  | the <b>Search</b> button   |
| Review | the citation(s) retrieved  |
|        |  All the records relevant to older women may not contain the exact words “older women.” The age and gender limits are more inclusive (i.e., broader retrieval) of all records that actually contain information on older women. |
| Click  | on <u>Remove</u> under <b>Limits Activated:</b> Female, Aged: 65+ years and the <b>Clear</b> 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  | <b>prostate cancer treatment African Americans</b> in the search box   |
| Click | on Limits  |
| Click | “Nursing Journals” checkbox in <b>Subsets</b> under <b>Journal Groups</b>  |
| Click | the <b>Search</b> button and review the citation(s) retrieved  |
| Click | on <u>Remove</u> under <b>Limits Activated:</b> Nursing Journals and the <b>Clear</b> button to prepare for a new search |

**Exercise 3: Find articles that published in the last year that focus on violence and substance abuse in adolescents.**

## Suggested Solution:

- |        |  |
|--------|--|
| Type   | <b>substance abuse violence</b> in the search box                                  |
| Click  | on Limits  |
| Select | 1 year from the “ <b>Published in the Last:</b> ” pull-down bar under <b>Dates</b> |
| Select | the box next to “Adolescent: 13-18 years” under <b>Ages</b>                        |
| Click  | the <b>Search</b> button   |
| Review | the citation(s) retrieved  |

Click on Remove under **Limits Activated**: Adolescent: 13-18 years, published in the last 1 year and **Clear** button to prepare for the next search

**Exercise 4: Research articles on the subject of genital herpes transmission and AIDS in adults. Next, e-mail to yourself the abstract of the second record in the text format.**

Suggested Solution:

Type **genital herpes transmission** in the search box  
 Click on Limits  
 Click “AIDS” checkbox in the **Subsets** under **Topics**  
 Click “All Adult: 19+ years” checkbox under **Ages**  
 Click the **Search** button  
 Click the box to the left of a record of your choice  
 Select E-mail from the “Send to” pull-down menu  
 Select 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 highlighted in green above the abstract  
 Click on Remove under **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 year on the relationship between sleep and diabetes. Limit your search to citations published during the past year that include free full-text articles.**

Suggested Solution:

Type **sleep diabetes** in the search box  
 Click on Limits  
 Select 1 year from the “**Published in the Last:**” pull-down bar under **Dates**  
 Click the checkbox to the left of “Links to free full text” under **Text Options**  
 Click the **Search** button and review the citation(s) retrieved  
 Click on Remove under **Limits Activated**: only items with links to free full text, published in the last 1 year and the **Clear** button next to the search box 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 search all articles 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 journal articles on hypertension and kidney failure in African Americans. Next, save your search in My NCBI.

#### Suggested Solution:

- Click **My NCBI** in the top right corner of the page
- Click Register for an account
- 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 kidney failure African American** in the search box
- Click the **Search** button
- Click on 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

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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 **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 citations by clicking the check box to the left of each citation you want to order. When you have finished marking your selections (you may move to other pages within your results), select Order from the **Send to**

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 import search results into a reference manager program, change the **Display** format to [MEDLINE](#), select [File](#) from the **Send to** pull-down menu, then click **Send to**. This format includes the field tags needed for these programs.

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

### 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®**  
Trusted Health Information for You

A service of the U.S. NATIONAL LIBRARY OF MEDICINE  
and the NATIONAL INSTITUTES OF HEALTH

Search MedlinePlus [About MedlinePlus](#) | [Site Map](#) | [FAQs](#) | [Contact Us](#) [español](#)

**Health Topics**  
Start here with 800 topics on conditions, diseases and wellness

**Drugs & Supplements**  
About your prescription and over-the-counter medicines, herbs and supplements

**Medical Encyclopedia**  
Includes pictures and diagrams

**Dictionary**  
Spellings and definitions of medical words

**News**  
Current health news and press announcements

**Directories**  
Find doctors, dentists and hospitals

**Go Local**  
A service for finding local resources for health-related issues

**Other Resources**  
Local health services, libraries, organizations, international sites and more

**Multiple Languages**  
Health information in over 40 languages

**Current Health News**

- Heart Attack Guidelines Close Racial Gaps in Hospital Care
- Men, Women May Respond Differently to Vaccines
- No Evidence Linking Cell Phone Use to Risk of Brain Tumors
- More news

**Featured Site**  
Want to know how your body works? Check out the new [anatomy videos](#) on MedlinePlus.

**In the Spotlight**  
New on NIH SeniorHealth: Gum (Periodontal) Disease

**Videos & Tutorials**  
Anatomy and surgery videos and interactive diagrams

**ClinicalTrials.gov**  
Studies for new drugs and treatments

**NIH SeniorHealth**  
Health information for older adults

[Mobile Version](#)

**NEW** [What's New](#)

[Director's Comments](#)

[NIH MedlinePlus Magazines](#)

[Email Updates and RSS](#)

[Search Cloud](#)

[Follow Us on Twitter](#)

**FLU.gov**  
Know what to do about the flu

**Oil Spills & Health**  
National Library of Medicine

<http://medlineplus.gov>



# MedlinePlus

MedlinePlus is the National Library of Medicine's answer to consumer-friendly, authoritative health information. It contains a wealth of information from trusted sources, 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 image shows a screenshot of the MedlinePlus website. A red box on the left side highlights the 'MedlinePlus Resources' section, which includes links for Health Topics, Drugs & Supplements, Medical Encyclopedia, Dictionary, News, Directories, Go Local, Other Resources, and Multiple Languages. Another red box at the top right highlights the 'español' link. A third red box at the bottom right highlights the 'NIH MedlinePlus Magazine' link. The website URL 'http://medlineplus.gov' is displayed at the bottom of the screenshot.

**MedlinePlus Resources**

**MedlinePlus en español**

**Subscribe to MedlinePlus Magazine**

<http://medlineplus.gov>

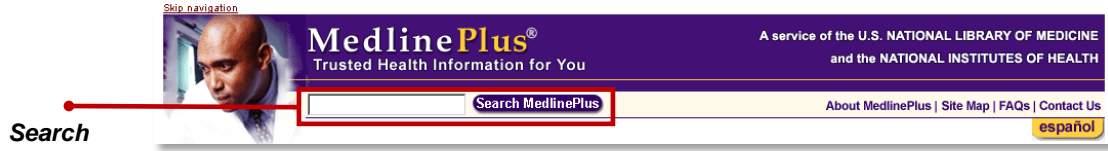
## Features

Features offered by MedlinePlus include:

- Easy-to-read language
- Easy-to-navigate pages
- New links added daily
- No advertising or endorsements
- Spanish version: <http://medlineplus.gov/spanish>

## Searching MedlinePlus

To search MedlinePlus, simply type your search term in the search box at the top of any MedlinePlus page:



## Browsing MedlinePlus

Click Health Topics on the home page (top left) to explore MedlinePlus alphabetically or by topic categories. From this page, you can also access Frequently Requested Topics, Interactive Health Tutorials, Easy to Read, Health Check Tools, and For Low Vision Users.

Navigational tabs at the top of the page allow you to go Home or to Drugs & Supplements, Encyclopedia, Dictionary, News, Directories, and Other Resources.

**Browse by Categories**

**Browse Alphabetically**

**Frequently Requested Topics**

**Health Check Tools**

## MedlinePlus Health Check Tools

Quizzes, calculators, self-assessments, and decision guides to check your knowledge and health status. Click the link on the Health Topics page (see above).

## Additional Links on the Home Page

Look for these icons on the bottom right of the home page to access the following information.



**Director's Comments**—Listen to a weekly update from Donald A.B. Lindberg, M.D., Director of the National Library of Medicine. Updates are distributed as free podcasts. A podcast is a digital audio broadcast for direct listening on a computer or by subscription via a download to a personal audio player.



**NIH MedlinePlus Magazine**—Subscribe to this free quarterly guide for patients and their families. Current and back issues are available on the Web site for downloading.



**E-mail Updates and RSS**—E-mail announcements contain links to new topics and sites containing consumer health information. RSS (Really Simple Syndication) helps you to keep up to date with MedlinePlus press announcements and HealthDay news stories without cluttering your e-mail inbox.



**Search Cloud**—A new feature that shows the 100 most frequently searched terms (in both English and Spanish versions)

## Additional Resources

For further information, we recommend these additional resources:

- MedlinePlus Frequently Asked Questions  
<http://www.nlm.nih.gov/medlineplus/spanish/faq/faq.html>
- Animated, 8-minute tour of MedlinePlus  
<http://www.nlm.nih.gov/medlineplus/spanish/faq/faq.html>
- Guide to Healthy Web Surfing  
<http://www.nlm.nih.gov/medlineplus/spanish/healthywebsurfing.html>
- MedlinePlus Tutorial  
<http://www.nlm.nih.gov/medlineplus/spanish/tutorial.html>
- Prescription for Success: Consumer Health Information on the Internet (NN/LM)  
<http://nmlm.gov/training/consumer/prescription>

## MEDLINE and MedlinePlus: What is the Difference?

**MEDLINE** is the National Library of Medicine’s (NLM) premier bibliographic database. This web-based research tool covers the fields of medicine, nursing, dentistry, veterinary medicine, the health care system, and the preclinical sciences. It contains more than 18 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"> <li>• Links to publishers</li> <li>• Selected full text articles</li> <li>• Selected consumer health journals</li> <li>• Links to MedlinePlus</li> </ul>	Value added: <ul style="list-style-type: none"> <li>• Drug information</li> <li>• Medical encyclopedia</li> <li>• Links to other Web resources</li> <li>• Link to MEDLINE searches</li> <li>• Spanish version</li> <li>• Surgery videos</li> <li>• Multiple languages</li> </ul>

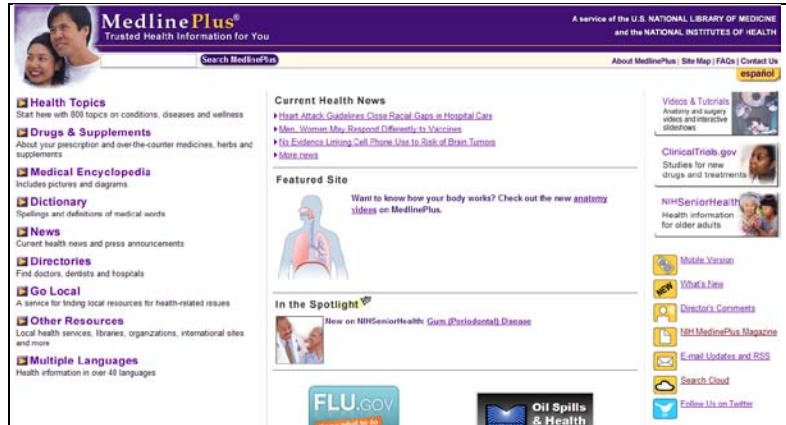


# MedlinePlus Search Exercises

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

Suggested Solution:

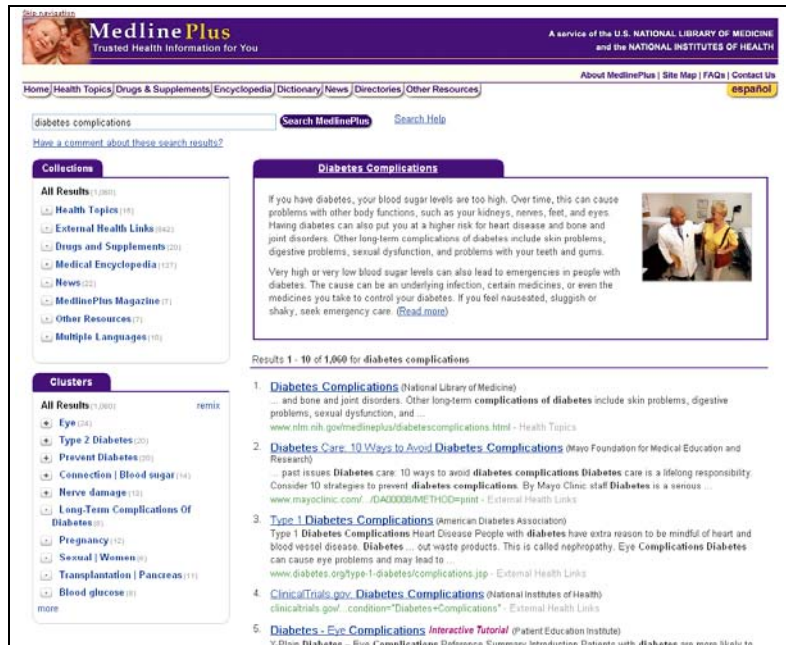
- Go to <http://medlineplus.gov>
- Type **diabetes complications** in the search box
- Click the **Search MedlinePlus** button



- 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: I heard that a skin condition called acanthosis nigricans can be associated with elevated insulin levels. What does it look like?**

Suggested Solution:

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

**Exercise 2: Locate information on prostate cancer prevention and screening.**


Suggested Solution:

- Click **P**
- Click Prostate Cancer from the alphabetical list of topics
- Click Prevention/Screening under Basics
- Click Prostate Cancer (PDQ): Prevention NIH (National Cancer Institute)
- Review the information retrieved and close the pop-up window
- Click Prostate-Specific Antigen (PSA) Test NIH (National Cancer Institute) and review the information retrieved
-  Note that this information is also available in Spanish.
- Close the pop-up window
- Click the **Health Topics** tab at the top of the page to prepare for the next search

**Exercise 3: Find information about HIV/AIDS and children. Next, use the Go Local feature to locate AIDS sources and resources in your community.**

Suggested Solution:

- 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
Scroll	to <b>Go Local</b> near the top right of the page
Select	Your state from the State pull-down menu and click <b>Go</b>  Currently there are twenty-three states. The remaining states will be added in the future.
Type	your zip code in the search box and click <b>Go</b>
Review	the information retrieved
Close	the pop-up window or click <b><u>MedlinePlus</u> Health Information</b> to the right of the page
Click	the <b>Home</b> tab to prepare for the next search


**Exercise 4: Are there any side effects that patients taking Ritalin should be aware of?**

Suggested Solution:

Click	Drugs & Supplements, then click <b>R</b> in the “Drug Information” bar
Click	<u>Methylphenidate</u> to the right of Ritalin® in the alphabetical list
Click	<u>What side effects can this medication cause?</u> under Contents of this page
Review	the information
Click	the <b>Drugs &amp; Supplements</b> tab at the top of the page to prepare for the next search

**Exercise 5: According to a recent survey conducted by researchers in Cleveland, Ohio, people living with HIV/AIDS commonly use the following herbs: Echinacea, Ginseng, Ginko, St. Johns Wort, and Yohimbe. Can these supplements interfere with prescribed medications? What is the scientific evidence for use of these drugs?**

Suggested Solution:

Click	<b>E</b> under Herbs and Supplements
Click	<u>Echinacea</u> in the alphabetical list
Click	<u>Evidence</u> under Contents of this page and review the information retrieved  Repeat these steps for: Ginseng, Ginkgo, St. Johns Wort, and Yohimbe
Click	the <b>Home</b> tab at the top of the page to prepare for the next search


**Exercise 6: Using the Medical Encyclopedia, locate an image depicting blood testing for diabetes.**

Suggested Solution:

- Click **Medical Encyclopedia**
- Click **D**
- Click Diabetes from the alphabetical list
- Click Blood test under Images
- Review the information retrieved
- Click the **Home** tab at the top of the page to prepare for the next search


**Exercise 7: Find an interactive tutorial on managing cholesterol.**

Suggested Solution:

- Click **Videos & Tutorials** on the right side of the page
- Click **Interactive Tutorials**
- Click Managing cholesterol link under **Prevention and Wellness**
- Click the **Start Interactive Tutorial** button and follow the instructions to view the tutorial
-  At the end of the tutorial, close the pop-up window.
- Click the **Home** tab at the top of the page to prepare for the next search

**Exercise 8: Find the MedlinePlus Hypertension page and link to the first news article. Next, view the Hypertension Interactive Tutorial.**

Suggested Solution:

- Click **Health Topics**
- Click **H**
- Click High Blood Pressure
- Click Latest News under Basics
- Review the first news article and hit the browser's back button when finished
- Click Hypertension Interactive Tutorial under Start Here at the top of the page
- Click the **Start Interactive Tutorial** button
-  At the end of the tutorial, close the pop-up window.
- Click the **Home** tab at the top of the page to prepare for the next search

**Exercise 9: Locate health information on a topic of your choice.**

# ClinicalTrials.gov

The screenshot shows the ClinicalTrials.gov homepage. At the top left is the logo "ClinicalTrials.gov" with the tagline "A service of the U.S. National Institutes of Health". To the right are navigation links for "Home", "Search", "Study Topics", and "Glossary", along with a search input field and a "Search" button. The main content area is divided into several sections:

- Introduction:** A paragraph explaining that ClinicalTrials.gov is a registry of federally and privately supported clinical trials, providing information on trial purpose, participants, locations, and contact details. It includes a "Read more..." link.
- Search for Clinical Trials:** A section with a blue arrow icon, stating that users can find trials for specific conditions or criteria. It notes that the registry currently has 89,996 trials with locations in 172 countries.
- Investigator Instructions:** A section with a blue arrow icon, providing instructions for clinical trial investigators/sponsors on how to register trials, including mandatory registration and reporting requirements under Public Law 110-85 (FDAAA).
- Background Information:** A section with a blue arrow icon, offering information on how to use ClinicalTrials.gov and access other consumer health information from the US National Institutes of Health.
- Resources:** A sidebar section containing links to "Understanding Clinical Trials", "What's New", and "Glossary".
- Study Topics:** A sidebar section containing links to "List studies by Condition", "List studies by Drug Intervention", "List studies by Sponsor", and "List studies by Location".
- Compliance:** A small icon indicating that the site complies with the HONcode standard for trustworthy health information, with a "verify here" link.

At the bottom of the page, there is a footer with the following text: "ClinicalTrials.gov", "Walter Hill National Center for Biomedical Communications", "U.S. National Library of Medicine", "U.S. National Institutes of Health", "U.S. Department of Health & Human Services", "VIA.gov", "Copyright", "Privacy", "Accessibility", "Freedom of Information Act". Below this text are the logos for the National Institutes of Health (NIH), the National Library of Medicine (NLM), and the U.S. Department of Health & Human Services.

<http://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 more than 89,000 trials with locations in 172 countries.



*Trials listed  
by Study  
Topic*

## 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

Rank	Status	Study
1	Not yet recruiting	Study to Find Out if Intensive Diabetes Clinic and Continuous Glucose Monitor Help Teenagers With Diabetes
2	Completed	Obese Patients With Type 2 Diabetes
3	Not yet recruiting	Evaluation of a Diabetes-specific Cognitive Behavioral Treatment for Subthreshold Depression
4	Recruiting	The Effect of a Diabetes Action Team in Patients Post Intra-aortic Balloon Pump Surgery With and Without Diabetes
5	Completed	Feasibility and Impact of "ABCs of Diabetes" Self-Management Education Program at an Urban Public Library
6	Active, not recruiting	Explanatory Study of Isclic Oral Films in a Diabetic Population

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



# ClinicalTrials.gov Search Exercises

## Search Example: Do any clinical trials focus on Insulin Aspart for Juvenile Diabetes?

Suggested Solution:

- Go to <http://clinicaltrials.gov>
- Click **Search for Clinical Trials**

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

Home Search Study Topics Glossary

Search

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

**Search for Clinical Trials**

Find trials for a specific medical condition or other criteria in the ClinicalTrials.gov registry. ClinicalTrials.gov currently has **89,996 trials** with locations in **172 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](#)

NIH  
NLM  
CDC  
10/2014 This site complies to the HHS/NIH standard for trustworthy health information: [verify here](#)

- Type **insulin aspart juvenile diabetes** in the search box
- Click the **Search** button

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

Home Search Study Topics Glossary

Search

Basic Search **Advanced Search** Studies by Topic Studies on Map

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

Example: Heart Attack AND Los Angeles

insulin aspart juvenile diabetes

Advanced Search [Help](#)

Search

- Review record(s) of your choice

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

Home Search Study Topics Glossary

Search

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

Found 60 studies with search of: **insulin aspart juvenile diabetes**

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

Rank	Status	Study
1	Completed	<a href="#">Safety and Efficacy of NovoLog vs. Humalog in Insulin Pumps in Children and Adolescents</a> Condition: Diabetes Mellitus, Type 1 Interventions: Drug: insulin lispro; Drug: insulin aspart
2	Completed	<a href="#">Safety Follow-up on Children and Adolescents With Type 1 Diabetes Treated With Insulin Detemir, An Extension to Trial N03041689</a> Condition: Diabetes Mellitus, Type 1 Interventions: Drug: insulin detemir; Drug: insulin aspart
3	Completed <a href="#">Has Results</a>	<a href="#">Comparison of NPH Insulin and Insulin Detemir in Children and Adolescents With Type 1 Diabetes</a> Condition: Diabetes Mellitus, Type 1 Interventions: Drug: insulin detemir; Drug: insulin NPH; Drug: insulin aspart
4	Completed	<a href="#">Comparison of Antibody Levels in Children and Adolescents After Initiation of Insulin Therapy by Either Insulin Aspart or Soluble Human Insulin</a> Condition: Diabetes Mellitus, Type 1 Interventions: Drug: soluble human insulin; Drug: isophane human insulin; Drug: insulin aspart
5	Completed	<a href="#">Comparison of Efficacy and Safety of Insulin Detemir and NPH Insulin in Children and Adolescents With Type 1 Diabetes</a> Condition: Diabetes Mellitus, Type 1

- Click the **Search** link at the top of the page to prepare for the next search

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

Home **Search** Study Topics Glossary

Search

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

Found 60 studies with search of: **insulin aspart juvenile diabetes**

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

Rank	Status	Study
1	Completed	<a href="#">Safety and Efficacy of NovoLog vs. Humalog in Insulin Pumps in Children and Adolescents</a> Condition: Diabetes Mellitus, Type 1 Interventions: Drug: insulin lispro; Drug: insulin aspart

**Exercise 1: Do any clinical trials focus on diabetes among African Americans?**

Suggested Solution:

- Click the Advanced Search tab
- Type **african american** in the Search Terms box
- Type **diabetes** in the Conditions 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 2: 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 3: Find all clinical trials studying breast cancer. Next, limit the results to minority women.**

Suggested Solution:

- Click the Advanced Search tab
- Type **breast cancer** 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 4: 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
- 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 5: View recently added clinical trial studies and clinical studies that are in the news.**

Suggested Solution:

- Click **What's New** on the right side of the page
- Click [View studies added in the] **last 14 days**
- Review record(s) of your choice
- Click **Search** in the header bar to prepare for the next search

**Exercise 6: 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 **Studies 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 7: Locate a study of your choice.**

This page is intentionally blank.

# AIDSinfo

**AIDSinfo** NIH  
A Service of the U.S. Department of Health and Human Services

Offering Information on HIV/AIDS Treatment, Prevention, and Research

Live Help | Subscribe to Listservs | Español | Site Tools

Search

E-mail | 1-800-HIV-0440 | 1-800-440-0440

[Guidelines](#) | [Drugs](#) | [Clinical Trials](#) | [Vaccines](#) | [Health Topics](#) | [More AIDSinfo](#)

**GUIDELINES**

Guidelines for the treatment of HIV/AIDS, reviewed and updated by experts in the field:

- Treatment / Prevention
- About the HIV Treatment Guidelines
- Download / Order
- FDA Tools

**DRUGS**

Fact sheets on HIV/AIDS-related drugs:

- Search the Drug Database
- FDA-Approved Drugs
- Investigational Drugs

**CLINICAL TRIALS**

Find research studies on drugs, vaccines, and other new or existing treatments for HIV/AIDS:

- Search for Clinical Trials
- New HIV/AIDS Trials

**VACCINES**

Information on preventative and therapeutic HIV vaccine research:

- Preventive HIV Vaccines
- Therapeutic HIV Vaccines
- Search for Vaccine Trials

**HEALTH TOPICS**

Find resources on HIV/AIDS-related topics:

- Resources
- Fact Sheets
- Microbicides: Drug Info and resources

**MORE AIDSINFO**

More useful AIDSinfo features:

- RSS Feeds
- Live Help
- Order Publications
- FDA Tools
- HIV/AIDS Glossary
- Translation Tool

**What's New on AIDSinfo**

**Highlights**

- Statement by NIAID Director Fauci on National Asian and Pacific Islander HIV/AIDS Awareness Day - May 19, 2010
- Statement by NIAID Director Fauci on National HIV Vaccine Awareness Day - May 18, 2010
- New Kaletra (lopinavir/ritonavir) Tablets and Oral Solution once daily dosing regimen in certain adult patients - April 28, 2010
- More...

**Features**

- Add AIDSinfo to Your Website!
- Homework Help
- At-a-Glance Archive

Receive updates, HIV/AIDS news, and treatment guidelines updates.

<http://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.



## 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.

## **Additional Resources**

For further information, we recommend these additional resources:

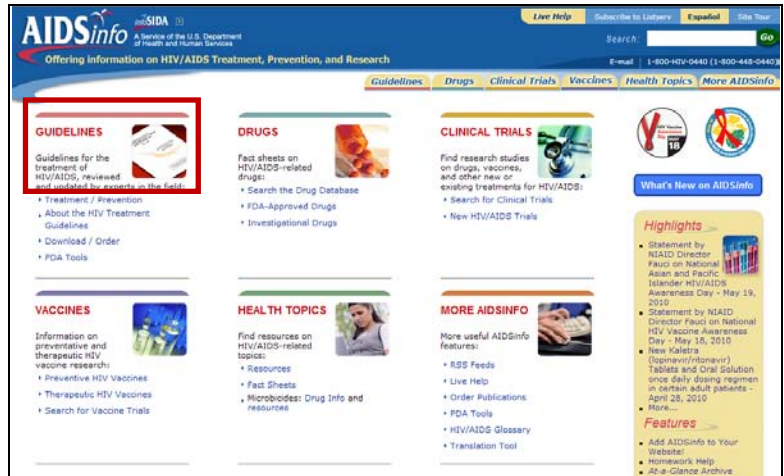
- *AIDSinfo* Brochure  
[http://aidsinfo.nih.gov/contentfiles/ai\\_brochure.pdf](http://aidsinfo.nih.gov/contentfiles/ai_brochure.pdf)
- *AIDSinfo* Workbook  
[http://nmlm.gov/training/consumer/nlm\\_databases/chdatabases\\_aids.doc](http://nmlm.gov/training/consumer/nlm_databases/chdatabases_aids.doc)
- *AIDSinfo* Glossary  
[http://aidsinfo.nih.gov/ContentFiles/GlossaryHIV-relatedTerms\\_FifthEdition\\_en.pdf](http://aidsinfo.nih.gov/ContentFiles/GlossaryHIV-relatedTerms_FifthEdition_en.pdf)
- *AIDSinfo* Glossary Spanish version (Glosario del VIH/SIDA)  
[http://www.aidsinfo.nih.gov/ContentFiles/SpanishGlossary\\_sp.pdf](http://www.aidsinfo.nih.gov/ContentFiles/SpanishGlossary_sp.pdf)
- *infoSIDA* (Spanish *AIDSinfo* Web site)  
<http://aidsinfo.nih.gov/infosida>

# AIDSinfo Search Exercises

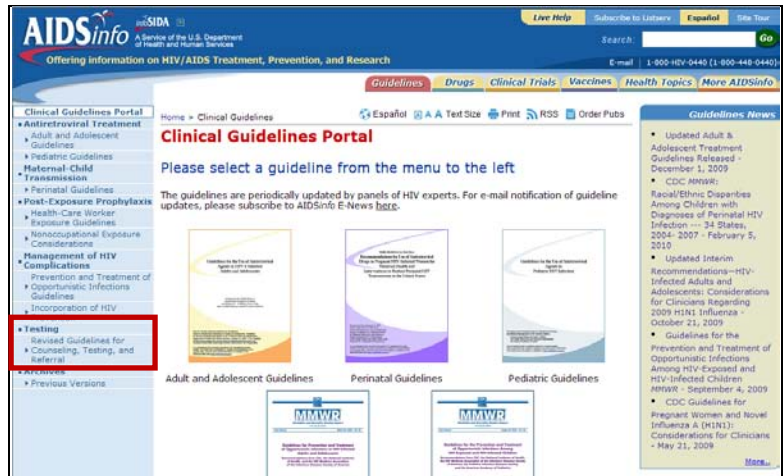
## Search Example: Locate the latest guidance on HIV testing, counseling, and referral.

Suggested Solution:

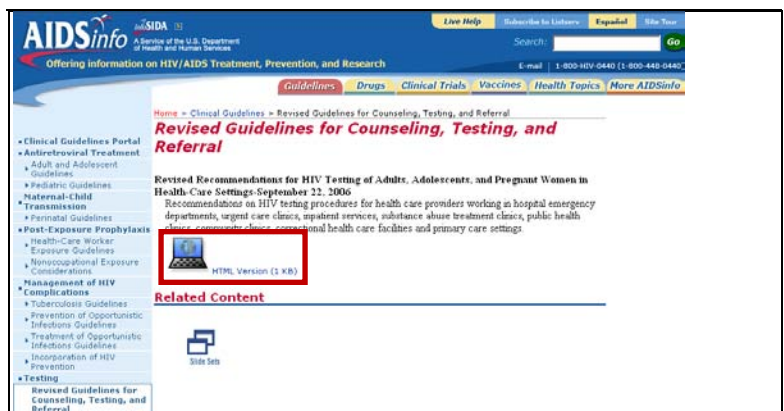
- Go to <http://aidsinfo.nih.gov>
- Click **GUIDELINES**



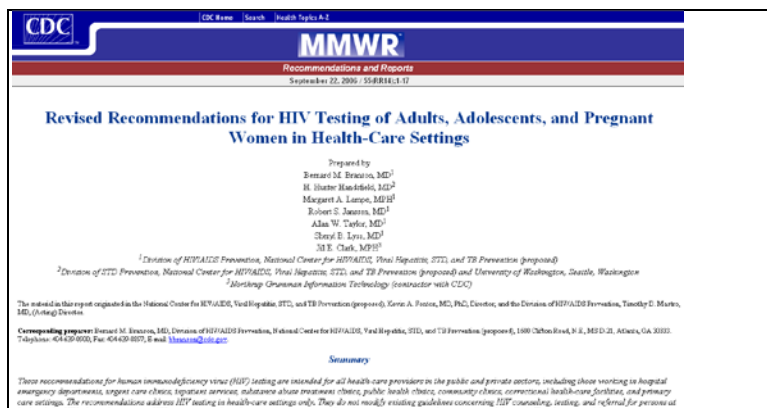
- Click Revised Guidelines for Counseling, Testing, and Referral under **Testing** in the menu bar to the left



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



- Review the document and close the CDC window



### Search Exercises: Guidelines

**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 [Perinatal Guidelines](#) under “**Maternal-Child Transmission**“ in the menu bar to the left
- Click [PDF Version \(1.2 MB\)](#)
- Review the document and close the pop-up window
- Click [Previous Versions](#) 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
- Click the **Guidelines** tab to return to the Clinical Guidelines Portal


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

Suggested Solution:

- 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 hit the browser’s back button to return to the **Clinical Guidelines Portal**
- Click [Subscribe to Listserv](#) at the top right of the page
- Follow the directions for subscribing to the Listserv
- Click the **Guidelines** tab to return to the **Clinical Guidelines Portal**

**Exercise 3: Conduct a keyword search for Antiretroviral naïve of the Adult and Adolescent guidelines. Review the “What Not to Use” section of the guidelines.**

Suggested Solution



Click	Adult and Adolescent Guidelines under Antiretroviral Treatment in the menu bar to the left
Click	<u>Search</u> under Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents – December 1, 2009
Type	“ <b>anti</b> ” in the search box  Note: you will get a drop-down menu populated with keywords that contain the same root letters
Select	<u>Antiretroviral naïve</u> from the list
Click	Go
Click	<b>What Not to Use</b>
Review	the guidelines and close the pop-up window
Click	the <b>Guidelines</b> tab to return to the Clinical Guidelines Portal

**Exercise 4: 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: Drugs**


**Exercise 5: 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 <b>Drugs</b> tab at the top of the page
Type	<b>FTC</b> in the “Drug Name” search box under <b>Search the Drug Database</b>
Click	the <b>Search</b> button
Click	<u>FTC (Emtriva)</u> under <b>FDA-approved Drugs</b>  The page defaults to the <b>Patient Version</b>
Review	the information in the Patient Version
Click	<b>Health Professional Version</b> 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.
Click	the <b>Drugs</b> tab to return to the <b>AIDSinfo Drug Database</b>

**Exercise 6: Should *tenofovir DF* be taken with food? Use the alphabetical search feature.**

Suggested Solution:

- Click I under Alphabetical Search
- Click **Tenofovir disoproxil fumarate**
- Click Health Professional Version
-  Detailed Information is provided only in the health professional version.
- Scroll to the Drug and Food Interactions section and review the information
- Click the **Drugs** tab to return to the *AIDSinfo Drug Database*

**Exercise 7: The FDA recently approved *Maraviroc* an antiretroviral drug. What are the most common side effects associated with *Maraviroc*?**

Suggested Solution:

- Type **maraviroc** in the **Drug Name** search box
- Click the **Search** button
- Click **Maraviroc (Selzentry)**
- Review the information in the **Possible Side Effects** section
- Click the **Drugs** tab to return to the *AIDSinfo Drug Database*

**Exercise 8: Using the alphabetical search feature, review the Spanish patient record for *Darunavir*.**

Suggested Solution:

- Click D under Alphabetical Search
- Click Darunavir
- Click **Spanish Version**
- Click the **Drugs** tab to return to the *AIDSinfo Drug Database*

**Exercise 9: View the list of investigational entry and fusion inhibitors. Review the clinical trial status of one of the investigational drugs.**

Suggested Solution:

- Click Entry and Fusion Inhibitors under “**Investigational Drugs**” in the menu bar to the left
- Click the investigational drug of your choice

- Scroll to the **Clinical Trials** section and click [here](#) to search ClinicalTrials.gov for trials that use the selected drug
- Review the clinical trial record(s) and close the ClinicalTrials.gov window
- Click the **Clinical Trials** tab to prepare for your next search

## Search Exercises: Clinical Trials

### Exercise 10: Are there any studies investigating kidney complications of HIV/AIDS?

Suggested Solution:

- 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
- Click the **Clinical Trials** tab to return to the **Clinical Trials** page or click the **Start Over** button

### Exercise 11: Are there any clinical trials studying pregnancy and transmission of HIV?

Suggested Solution:

- Type **pregnancy** in the search box
- Click the **Search** button
- Review a study or studies of your choice and close the ClinicalTrials.gov window
- Click the **Clinical Trials** tab to return to the **Clinical Trials** page or click the **Start Over** button

### Exercise 12: Find all HIV/AIDS trials focused on older adults.

Suggested Solution:

- Click the **Quick Search** tab
- Click **Specific Populations**
- Click **Older Adults**
- Review a study or studies of your choice and close the ClinicalTrials.gov window
- Click the **Clinical Trials** tab to return to the **Clinical Trials** page or click the **Start Over** button

**Exercise 13: Are there any interventional studies focusing on the new drug Kaletra for children?**

Suggested Solution:

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

This page is intentionally blank.

# DIRLINE

The screenshot displays the DIRLINE website interface. At the top, there is a blue header with the NLM logo and text: "United States National Library of Medicine National Institutes of Health". To the right of the header is a search bar labeled "Search NLM Web Site" with a "Go" button. Below the header is a navigation bar with links: "NLM Home | Contact NLM | Site Map | FAQs".

The main content area has a dark blue banner with the text: "Directory of Health Organizations SIS Specialized Information Services". Below this is a secondary navigation bar with links: "DIRLINE PDA Access", "SIS Home", "About Us", "Site Map & Search", and "Contact Us".

The main search area is titled "Search DIRLINE" and features a search input field with "Search" and "Clear" buttons. Below the input field is a hint: "(e.g. aging chronic diseases, scleroderma)".

Search options include: "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

Buttons: "Search" and "Browse the Index".

On the right side, there are three sections:  
1. "Health Hotlines" with a telephone icon and text: "Toll-free numbers for over 300 organizations".  
2. "Other NLM Resources" with links: "MedlinePlus®", "PubMed", "NLM Gateway", and "LocatorPlus".  
3. "Support Pages" with links: "Help", "Fact Sheet", "Disclaimer", and "A to Z List of Health Organizations".

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



## DIRLINE

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

The screenshot shows the DIRLINE website interface. At the top, there is a header for the United States National Library of Medicine, National Institutes of Health, with a search bar and navigation links. Below this is the 'Directory of Health Organizations' section, which includes a search bar and various filters. Two red boxes highlight specific features: one around the 'Health Hotlines' section, which offers toll-free numbers for over 300 organizations, and another around the 'A to Z List of Health Organizations' link. Red lines connect these boxes to text annotations on the right side of the image.

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

**A-Z List of Health Organizations**

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

DIRLINE contains more than 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  
<http://www.nlm.nih.gov/pubs/factsheets/dirlinfs.html>
- Prescription for Success: Consumer Health Information on the Internet (National Network of Libraries of Medicine)  
<http://nmlm.gov/training/consumer/prescription>
- Medical Subject Headings (MeSH)  
<http://www.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 <http://dirline.nlm.nih.gov>
- Type your state name in the search box (example: **north carolina**)
- Click the **Search** button

The screenshot shows the NLM Directory of Health Organizations search interface. At the top, there is a search bar for the NLM Web Site. Below that, the main heading is 'Directory of Health Organizations' with 'SIS Specialized Information Services' underneath. A search box labeled 'Search DIRLINE' contains the text 'north carolina'. To the right of the search box are 'Search' and 'Clear' buttons. Below the search box, there are radio buttons for search options: 'all of the words', 'any of the words', and 'exact phrase'. To the right of the search box, there is a 'Health Hotlines' section with a telephone icon and text about toll-free numbers for over 300 organizations. At the bottom right, there is a section for 'Other NLM Resources'.

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

The screenshot shows the NLM Directory of Health Organizations search results page. The search box contains 'north carolina'. Below the search box, it says 'Items 1 through 20 of 141' and 'Organization Names are sorted in relevancy ranked order.' There is a 'Pages: 1 2 3 4 5 6 7 8' navigation bar. The main content area is a table with two columns: 'Select Record' and 'Organization Name'. The table lists 7 records, each with a checkbox and a link to the organization's page. On the left side of the page, there is a sidebar with various buttons: 'Save Checked Items', 'Sort', 'Details', 'History', 'Download', 'Modify Search', 'New Search', 'Browse Index', 'SIS Home', and 'MEDLINEplus Home'. The 'New Search' button is highlighted with a red box.

Select Record	Organization Name
<input type="checkbox"/>	<a href="#">North Carolina Biotechnology Center</a>
<input type="checkbox"/>	<a href="#">North Carolina Museum of Natural Science - Department of Environment and Natural Resources - North Carolina State Government</a>
<input type="checkbox"/>	<a href="#">North Carolina State Highway Patrol - North Carolina Department of Crime Control and Public Safety</a>
<input type="checkbox"/>	<a href="#">North Carolina Utilities Commission</a>
<input type="checkbox"/>	<a href="#">North Carolina National Guard - North Carolina Department of Crime Control and Public Safety</a>
<input type="checkbox"/>	<a href="#">Pesticide Section - Food and Drug Protection Division - North Carolina Department of Agriculture and Consumer Services - North Carolina State Government</a>
<input type="checkbox"/>	<a href="#">Carolina Geriatric Education Center - Center for Aging and Health - School of Medicine - University of North Carolina at Chapel Hill (CGEC)</a>

**Exercise 1: Find records for organizations that provide information on substance abuse.**

Suggested Solution:

- |        |   |
|--------|---|
| Type   | <b>substance abuse</b> in the search box  |
|        | Be sure to space after each search term. Remember—Boolean operators do not work in DIRLINE. |
| Click  | the <b>Search</b> button  |
| Review | record(s) of your choice  |
| Click  | the <b>New Search</b> 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  | <b>cdc hiv aids</b> in the search box                                   |
| Click | the <b>Search</b> button  |
| Click | the checkbox to the left of record(s) of your choice                    |
| Click | the <b>Save Checked Items</b> button on the left                        |
| Click | the <b>Display Saved Items</b> button to review the record(s)           |
| Click | the <b>New Search</b> button on the left to prepare for the next search |

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

Suggested Solution:

- |        |   |
|--------|---|
| Type   | <b>domestic violence</b> in the search box  |
| Click  | the <b>Search</b> button  |
| Review | record(s) of your choice  |
| Click  | the <b>Modify Search</b> button on the left of the page   |
| Click  | the checkbox for <u>Only organizations with services for the hearing impaired</u> under <b>“Select records containing:”</b> |
| Click  | the <b>Search</b> button  |
| Review | record(s) of your choice  |
| Click  | the <b>New Search</b> 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 <b>Browse the Index</b> button                |
| Type   | <b>environmental</b> in the search box            |
| Click  | the <b>Search</b> button                          |
| Click  | the checkbox for the index term(s) of your choice |
| Click  | the <b>Select</b> button above the table          |
| Click  | the <b>Sort</b> button on the left                |
| Click  | <b>Descending</b> and then the <b>Sort</b> 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.

The screenshot shows the Genetics Home Reference website interface. At the top right, there is a search bar with a 'Search' button, highlighted by a red box and labeled 'Search'. On the left side, there is a vertical menu with categories like 'What's New', 'Newborn Screening', and 'In the Spotlight', with a red line pointing to it labeled 'A to Z Indexes'. In the center, there are three main sections: 'Genetic Conditions A to Z and related genes and chromosomes', 'Genes', and 'Chromosomes', all highlighted by a red box and labeled 'A to Z Indexes'. On the right side, there are three sections: 'Handbook', 'Glossary', and 'Resources', all highlighted by a red box and labeled 'Concepts & Tools'. At the bottom, the URL 'http://ghr.nlm.nih.gov' is displayed.

### 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 more than 500 health conditions, diseases, and syndromes
- **Genes:** Summaries of more than 700 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.

The screenshot shows the NLM website page for 'Multi-Cultural Resources for Health Information'. The page has a purple header with the title 'Outreach Activities & Resources' and 'SIS Specialized Information Services'. Below the header is a navigation bar with links for 'SIS Home', 'About Us', 'Site Map & Search', and 'Contact Us'. The main content area is titled 'Multi-Cultural Resources for Health Information' and contains a list of resource categories: 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, and Disclaimer. A 'Featured Site' section highlights the RHIN (Refugee Health Information Network). A 'Cultural Competency' section lists links to the AMA (American Medical Association) and ASMHTP (American Society of Multicultural Health and Transplant Professionals).

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

# 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).



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:  
<http://nihseniorhealth.gov/accentHelp.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.

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

Navigation  
Toolbar

A-Z Index  
(coming  
soon) and  
Search Box

## Organization and Features

The Women's Health Resources home page is organized into six areas: Health Topics, News Feeds, Highlights, Featured Topic, NIH Priorities, and Funding. An A to Z Index for easy searching will be added to the site soon.

## Additional Resources

For further information, we recommend these additional resources:

- Office of Research on Women's Health  
<http://orwh.od.nih.gov/>
- Women's Health Initiative  
<http://www.nhlbi.nih.gov/whi/>

# Introduction to the NLM Environmental Health and Toxicology Resources

The screenshot displays the website for the National Library of Medicine's Environmental Health and Toxicology resources. The header includes the U.S. Department of Health & Human Services logo, the website URL www.hhs.gov, and the NLM logo. The main navigation bar contains links for SIS Home, About Us, Site Map & Search, and Contact Us. The central content area features a large image of a microscope with the text "For Researchers and Scientists". To the left of this image is a menu titled "Find Information About..." with options: "Especially For", "Search TOXNET Databases", "Other Professional Resources", "Resources for the Public", "Enviro-Health Links", "Guides & Tutorials", and "Quick Tours". Below this menu is a search box labeled "Search Our Web Site" with a "Search" button and the example "(e.g. climate change)". To the right of the search box is a section titled "For Information About ..." with three sub-sections: "Emergency Response" (Resources for preparedness, response, and medical management for chemical and radiological emergencies), "Drugs & Dietary Supplements" (Resources on prescription and non-prescription drug information and dietary supplements), and "Chemicals and You" (Find out about chemical exposure in your daily life). On the right side of the page, there are several utility boxes: "Search TOXNET" (TOXNET - Collection of databases on hazardous chemicals, toxic releases, and environmental health), "In the Spotlight" (listing Household Products Database, Hazardous Substances Data Bank (HSDB), Tox Town, TOXMAP, and ChemIDplus), "Stay Connected" (listing Join the Listserv, Subscribe to RSS, Follow us on Twitter, and Bookmark and share), and "News & Events" (listing SIS News and Calendar of Events). At the bottom left, there is an "About TEHIP" section with links to "Toxicology & Environmental Health Information Program", "TEHIP Quick Tour", and "Contact Us: Provide Feedback".

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



## The NLM Environmental Health and Toxicology Portal

The NLM's **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
- In the Spotlight
- Stay Connected
- News & Events

<http://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  
<http://sis.nlm.nih.gov/getthemostfromsis.html>
- ▶ NLM's Environmental Health and Toxicology Resources Quick Tour  
<http://sis.nlm.nih.gov/enviro/captivate/tehipoverview.htm>
- ▶ Publications and Reference Materials  
<http://sis.nlm.nih.gov/enviro/enviropubs.html>

## Drugs and Dietary Supplements Suite

The **Dietary Supplements Labels Database** contains information from the labels of more than 2,000 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).

**United States National Library of Medicine**

**Dietary Supplements Labels Database**  
*brands, ingredients, and references*

Search   [Advanced Search](#)

[Home](#) | [About](#) | [FAQ](#) | [Glossary](#) | [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 three thousand 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.

[Warnings](#) and [Recalls](#) from the U.S. Food and Drug Administration (FDA), related to specific ingredients and supplement brands have also been provided.

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

<http://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 more than 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.



<http://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**<sup>BETA</sup> 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**<sup>BETA</sup>  
rapid identification, reliable information

United States  
National Library of Medicine  
National Institutes of Health

Home View All Images About FAQ Feedback

## Identify an unknown pill

visual identification/exploration  
Adobe Flex powered

HTML-based  
screen-reader compatible

### What?

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

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

### How?

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

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

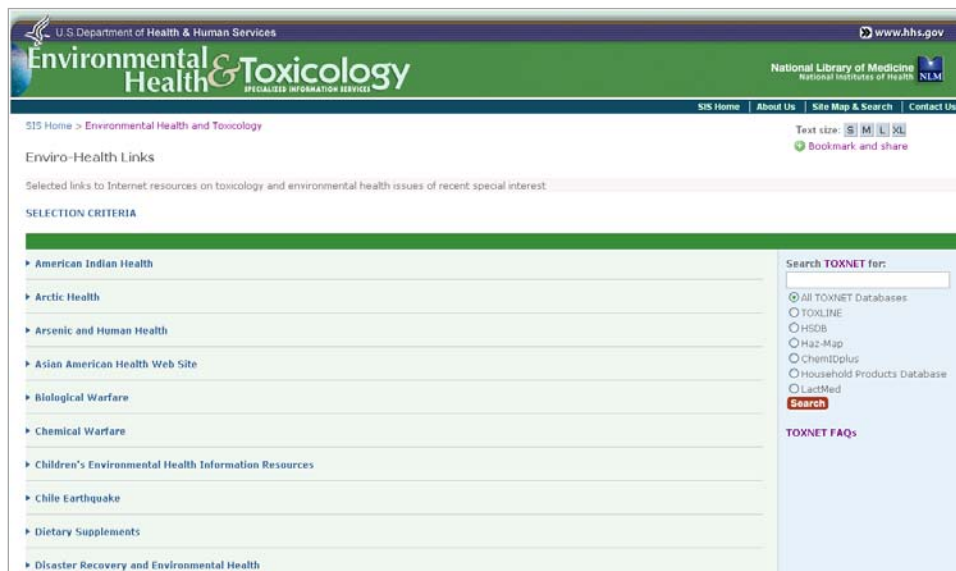
National Library of Medicine National Institutes of Health U.S. Dept. of Health & Human Services Copyright Accessibility

<http://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. You may also search TOXNET from this page. From the Environmental Health and Toxicology Portal, click [Enviro-Health Links](#) under **More to Explore**.



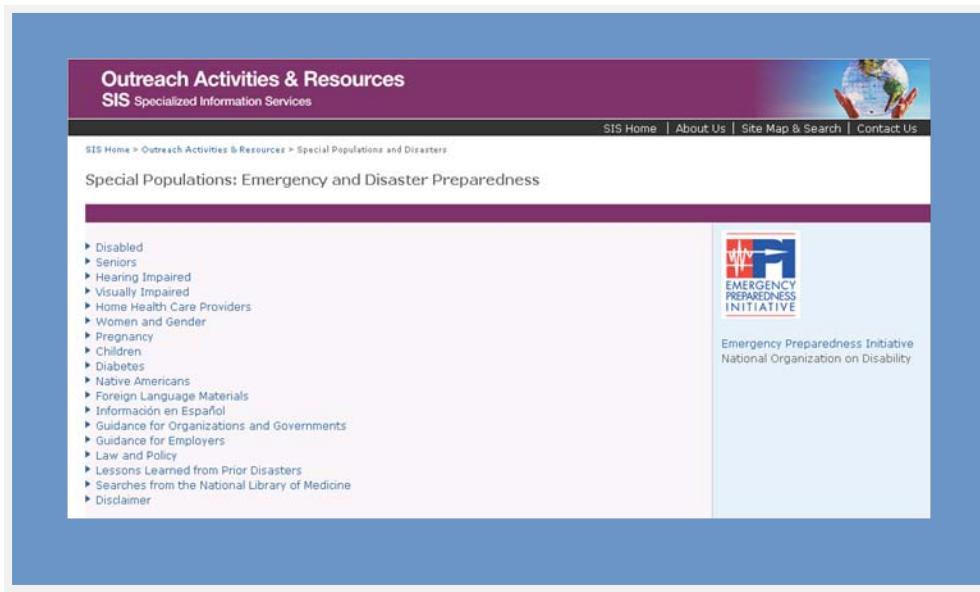
<http://sis.nlm.nih.gov/enviro/envirohealthlinks.html>

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 NLM's 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:*

**Search TOXNET**

<http://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:  
<http://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.

**Select a TOXNET database to search**

**Search All Databases**

**Link to EH/Tox Portal**

**Support Pages**

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

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 Nomenclature:** 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).

The screenshot shows the TOXNET search interface. On the left, a 'Select Database' list includes ChemIDplus, HSDB, TOXLINE, CCRIS, DART, GENETOX, IRIS, ITER, LactMed, Multi-Database, TRI, Haz-Map, Household Products, and TOXMAP. A 'Search All Databases' button is highlighted with a red box. The search input field contains 'ammonia' and a 'Search' button is visible. Below the search input, there are instructions: 'Enter term(s) to search all databases. (e.g. asthma air pollution, fever, vinyl chloride)'. The results are displayed under two main headings: 'References from Biomedical Literature' and 'Chemical, Toxicological, and Environmental Health Data'. The first heading shows results for TOXLINE (16563 records) and DART (285 records). The second heading shows results for ChemIDplus (1 record), HSDB (925 records), CCRIS (1 record), and CPDB (0 records).

### 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

The screenshot shows a search input field with the text '(e.g. antifreeze kidney failure, chromium compounds, 7718-54-9)'. Below the input field are 'Search', 'Clear', and 'Help' buttons. A red box highlights a section with the text 'For chemicals, add synonyms and CAS numbers to search:' followed by radio buttons for 'Yes' and 'No'. Below this section are 'Limits' and 'Browse the Index' buttons.

“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 shows the Hazardous Substances Data Bank (HSDB) interface. At the top, there is a navigation bar with buttons for 'Next Item', 'Search Results', 'Basic Search', 'Details', 'Other Files', and 'Modify Search'. Below this is a 'Table of Contents' section with a list of categories, each with a checkbox and a small icon. The categories include: 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 displays 'AMMONIA' with its CASRN (7664-41-7) and a section for 'Human Health Effects'. A 'Human Toxicity Excerpts' section provides detailed information on symptoms and effects, including a reference to Gosselin, R.E., R.P. Smith, H.C. Hodge, Clinical Toxicology of Commercial Products, 5th ed. Baltimore: Williams and Wilkins, 1984, p. III-22.

# HSDB

The screenshot displays the TOXNET Toxicology Data Network website. At the top left is the United States National Library of Medicine (NLM) logo. The main header features the TOXNET logo and a navigation menu with links for TOXNET PDA Access, SIS Home, About Us, Site Map & Search, and Contact Us. Below the header, a breadcrumb trail indicates the current location: Env. Health & Toxicology > TOXNET > HSDB.

The main content area is titled "Hazardous Substances Data Bank (HSDB) - Comprehensive, peer-reviewed toxicology data for about 5,000 chemicals." It is divided into three primary sections:

- Select Database:** A list of databases including ChemIDplus, HSDB (highlighted), TOXLINE, CCRIS, DART, GENETOX, IRIS, ITER, LactMed, Multi-Database, TRI, Haz-Map, Household Products, TOXMAP, and TOXNET Home.
- Search HSDB:** A search interface with a text input field, a "Search" button, and a "Clear" button. Below the input field, an example search term is provided: "(e.g. antifreeze kidney failure, chromium compounds, 7718-54-9)". There is also a "Help" button and a section for "For chemicals, add synonyms and CAS numbers to search:" with radio buttons for "Yes" (selected) and "No". At the bottom of this section are "Limits" and "Browse the Index" buttons.
- Env. Health & Toxicology:** A section with a "VISIT SITE" button and a "Support Pages" list containing links for Help, Fact Sheet, Sample Record, HSDB Scientific Review Panel, and TOXNET FAQ.

At the bottom left, there is an "Additional Resource" section with a link to CPDB.

<http://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 approximately 5,000 chemicals, organized into individual records—the average record is approximately 25 printed pages. Content is peer-reviewed by the 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 website interface. At the top, there is a header for the United States National Library of Medicine and TOXNET Toxicology Data Network. Below this is a navigation bar with links like 'TOXNET PDA Access', 'SIS Home', 'About Us', 'Site Map & Search', and 'Contact Us'. The main content area is titled 'Hazardous Substances Data Bank (HSDB) - Comprehensive, peer-reviewed toxicology data for about 5,000 chemicals.' It features a 'Select Database' list on the left, a 'Search HSDB' section in the center, and 'Env. Health & Toxicology' resources on the right. The 'Search HSDB' section includes a search input field, a search button, and a 'Limits' button highlighted with a red box. A red arrow points from the 'Limits' button to the text '-Limits -Browse the Index' on the right.

**-Limits  
-Browse the Index**

### 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.

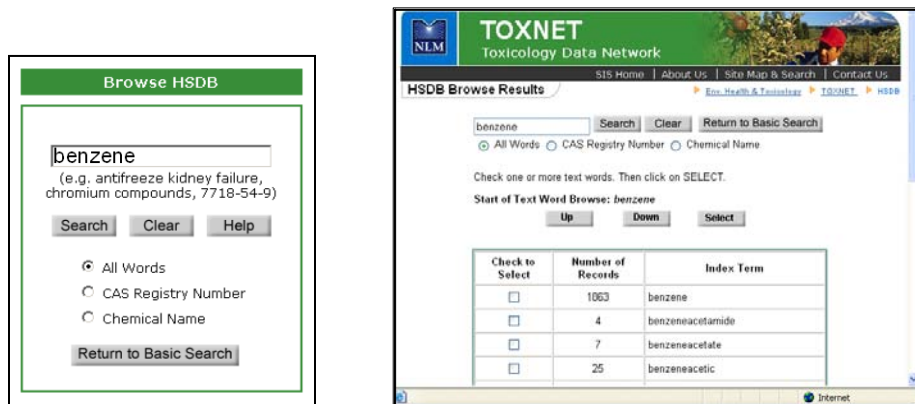
Use truncation (\*), Boolean operators (AND, OR, NOT), phrase searching, nested parentheses, limits, and index browsing to refine your search results.

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' interface. It includes a search input field, a search button, and a 'Clear' button. Below the search bar, there are options to 'Add chemical synonyms and CAS numbers to search:' with radio buttons for 'Yes' (selected) and 'No'. There are also options for 'Search:' with radio buttons for 'exact words', 'singular & plural forms' (selected), and 'word variants'. For 'Search records with:', there are radio buttons for 'the phrase' (selected), 'all words', and 'any words'. At the bottom, there is a 'Search in fields:' section with a note: '(If no box is checked, all fields will be searched.)' and buttons for 'Contract all categories' and 'Expand all categories'.

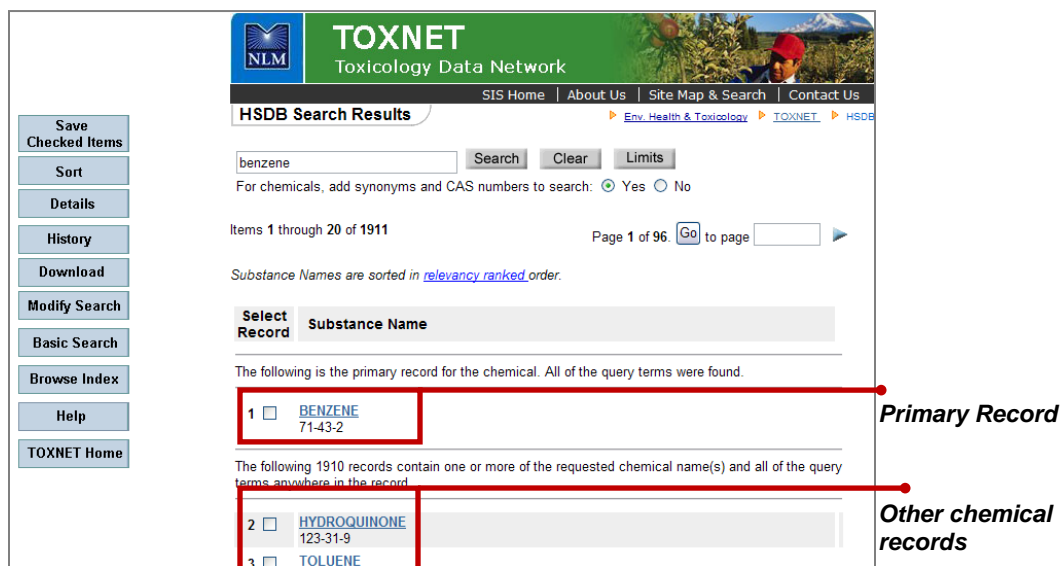
Click the **Browse the Index** button on the home page to search a list of index terms related to the search term entered and the number of records containing that term. Select the record(s) you want to view by clicking the appropriate box in the “Check to Select” column and clicking the **Select** button.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



## 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.

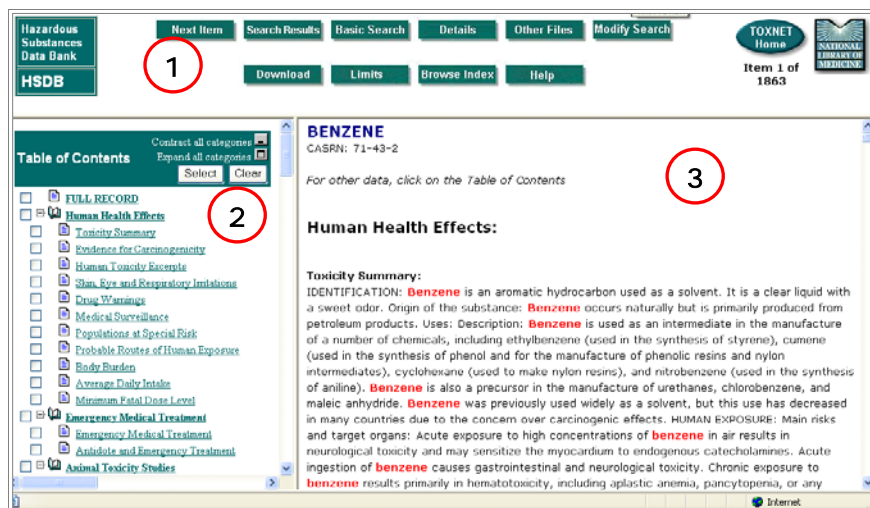
When searching for a chemical, the initial matching chemical record (the “primary record”) may be followed by additional chemical records that contain the chemical name or search term you entered.



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  
[http://www.nlm.nih.gov/pubs/techbull/ma07/ma07\\_hsd\\_b\\_skill\\_kit.html](http://www.nlm.nih.gov/pubs/techbull/ma07/ma07_hsd_b_skill_kit.html)
- HSDB Animated Tutorial  
[http://sis.nlm.nih.gov/enviro/captivate/basicsearchinghsdb\\_skin.swf](http://sis.nlm.nih.gov/enviro/captivate/basicsearchinghsdb_skin.swf)



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

-  Skin, Eye and Respiratory Irritations
-  Fire Potential
-  NFPA Hazard Classification
-  Flammable Limits
-  Flash Point
-  Autoignition Temperature
-  Fire Fighting Procedures
-  Toxic Combustion Products
-  Firefighting Hazards
-  Explosive Limits & Potential
-  Hazardous Reactivities & Incompatibilities
-  Hazardous Decomposition
-  Hazardous Polymerization
-  Other Hazardous Reaction
-  Prior History of Accidents
-  Immediately Dangerous to Life or Health
-  Protective Equipment & Clothing
-  Preventive Measures
-  Stability/Shelf Life
-  Shipment Methods and Regulations
-  Storage Conditions
-  Cleanup Methods
-  Disposal Methods
-  Radiation Limits & Potential
-  Occupational Exposure Standards
  -  OSHA Standards
  -  Threshold Limit Values
  -  NIOSH Recommendations
  -  Immediately Dangerous to Life or Health
  -  Other Occupational Permissible Levels
-  Manufacturing/Use Information
  -  Major Uses
  -  Manufacturers
  -  Methods of Manufacturing
  -  General Manufacturing Information
  -  Formulations/Preparations
  -  Impurities
  -  Consumption Patterns
  -  U. S. Production
  -  U. S. Import
  -  U. S. Exports
  -  Laboratory Methods
    -  Clinical Laboratory Methods
    -  Analytic Laboratory Methods
    -  Sampling Procedures
  -  Special References
    -  Special Reports
  -  Synonyms and Identifiers
    -  Related HSDB Records
    -  Synonyms
    -  Associated Chemicals
    -  Formulations/Preparations
    -  Shipping Name/ Number DOT/UN/NA/IMO
    -  Standard Transportation Number
    -  EPA Hazardous Waste Number
    -  Wiswesser Line Notation
    -  RTECS Number
  -  Administrative Information
    -  Hazardous Substances Databank Number
    -  Last Review Date



# HSDB Search Exercises

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

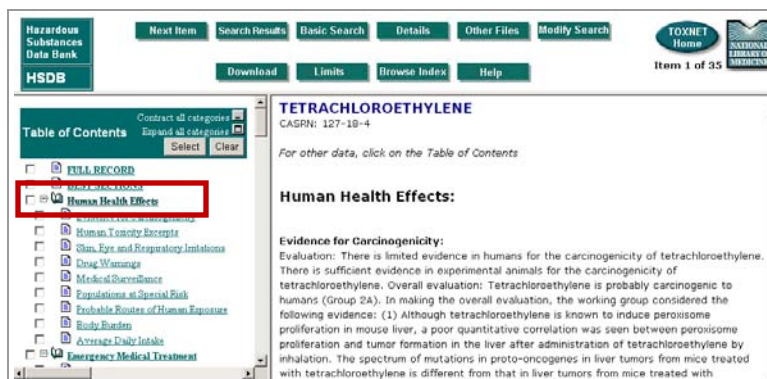
Suggested Solution:

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

- Click the first chemical

- Review the information in the right frame

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



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



**Exercise 1: What human health effects are associated with exposure to chemicals used in *methamphetamine* laboratories? What emergency medical treatment could be used if one is exposed?**

Suggested Solution:

- |        |  |
|--------|--|
| Type   | <b>methamphetamine</b> in the search box   |
| Click  | the <b>Search</b> button   |
| Click  | d-METHAMPHETAMINE  |
| Review | the information in the right frame   |
| Click  | <u>Emergency Medical Treatment</u> in the Table of Contents frame                    |
| Review | the information in the right frame   |
| Click  | the <b>Basic Search</b> button at the top of the page to prepare for the next search |

**Exercise 2: What are the concerns of bisphenol A residue in baby bottles?**

Suggested Solution:

- |        |  |
|--------|--|
| Type   | <b>bisphenol a baby bottles</b> in the search box                                    |
| Click  | the <b>Search</b> button   |
| Click  | <b>BISPHENOL A</b>   |
| Review | the Best Sections information in the right frame                                     |
| Click  | the <b>Basic Search</b> button at the top of the page to prepare for the next search |


**Exercise 3: What chemicals are oil refinery workers potentially exposed to? Limit the search to results in the human health field.**

Suggested Solution:

- Click the **Limits** button
- Type **oil refiner\*** in the search box
- Select “exact words” below 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 4: Using limits, find chemical warfare agents that have a record in HSDB. Limit your search to major uses under Manufacturing/Use Information, and enter your specified use query.**

Suggested Solution:

- Click the **Limits** button at the bottom of the search box
- Click the plus (⊕) icon to expand the Manufacturing/Use Information field
- Click to check the box next to Major Uses
- Type **chemical warfare** in the search box.
- Select “exact words” and “the phrase” below the search box.
- Click the **Search** button
-  Examine the use field text. Results may contain chemicals used against chemical warfare agent exposure.

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# Household Products Database

The screenshot shows the homepage of the Household Products Database. At the top, it features the U.S. Department of Health & Human Services logo and the website URL www.hhs.gov. The main title is "Household Products Database" with the subtitle "Health & Safety Information on Household Products". Navigation tabs include Home, Products, Manufacturers, Ingredients, and Health Effects. A "Quick Search" box is on the left, with a search bar and a "GO" button. Below it are links for "Advanced Search" and "Browse by Category". The "Browse by Category" section lists: Auto Products, Inside the Home, Pesticides, Landscape/Yard, Personal Care, Home Maintenance, Arts & Crafts, Pet Care, and Home Office. A "Browse A-Z" section lists: Product Names, Types of Products, Manufacturers, and Ingredients. A "Support" section lists: About the Database, FAQ, Product Recalls, Help, Glossary, Contact Us, and More Resources. The main content area has a heading: "What's under your kitchen sink, in your garage, in your bathroom, and on the shelves in your laundry room? Learn more about what's in these products, about potential health effects, and about safety and handling." Below this is a grid of nine product categories, each with a small image and a list of products: Auto Products (Brake Fluid, De-icer, Lubricant, Sealant, and more...), Inside the Home (Air Freshener, Bleach, Cleaners, Toilet Bowl Cleaner, and more...), Pesticides (Animal Repellent, Fungicide, Herbicide, Insecticide, and more...), Landscape/Yard (Fertilizer, Lawn Care, Swimming Pool Products, and more...), Personal Care (Antiperspirant, Hair Spray, Makeup, Shampoo, Soap and more...), Home Maintenance (Caulk, Grout, Insulation, Paint, Putty, Stain, and more...), Arts & Crafts (Adhesive, Glaze, Glue, Primer, Varnish, and more...), Pet Care (Flea & Tick Control, Litter, Stain/Odor Remover, and more...), and Home Office (Ink, Toner, Correction Fluid, Electronics Cleaners, Pens and more...). At the bottom, there is a note: "For advice if someone is poisoned, call your local Poison Center at 1-800-222-1222." and a navigation bar with links: Home | Products | Manufacturers | Ingredients | Health Effects.

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



## Household Products Database

Household Products Database contains links for over 9,000 consumer brands of household products to health effects from Material Safety Data Sheets (MSDS) provided by the manufacturers.

**Advanced Search**

**More Resources**

**Navigation Toolbar**

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

Household Products Database 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 Household Products Database 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 Household Products 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 Household Products 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  
<http://hazard.com/msds>
- MSDSprovider: Free Access to Manufacturer-Direct MSDSs  
<http://www.msdsprovider.com>

### Government Information Resources

- OSHA's MSDS Regulation – Hazard Communication 1910.1200  
[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=10099&p\\_text\\_version=FALSE](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10099&p_text_version=FALSE)
- Read the Label First! Campaign (EPA)  
<http://www.epa.gov/oppt/labeling/pubs/campaign.htm>
- Household Hazardous Waste (EPA)  
<http://www.epa.gov/epawaste/conserva/materials/hhw.htm>

### From the National Library of Medicine

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

### Product Recalls

- Product Safety and Recall Lists  
<http://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 <http://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: What household products are associated with asthma?**

Suggested Solution:

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

**Exercise 2: Using Quick Search locate products containing *Panthenol*.**

Suggested Solution:

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

**Exercise 3: What ant killers contain *diazinon*?**

Suggested Solution:

- Click the **Ingredients** tab
- Click **D**
- Click diazinon and view the list of products
- Click the **Home** tab to prepare for the next search

**Exercise 4: How can I do a quick search to find information on bleach?**

# Haz-Map



**Haz-Map**  
Occupational Exposure to Hazardous Agents

Search  as [Agent](#) [Disease](#) [Job](#) [Text Search](#)

[Haz-Map Search](#) [More Searches](#) [Haz-Map Help](#) [Glossary](#) [References](#)

**Browse Haz-Map**

- **Hazardous Agents**
  1. [By Types of Agents](#)
  2. [By Adverse Effects](#)
  3. [Alphabetically](#)
- **Occupational Diseases**
  1. [By Types of Diseases](#)
  2. [By Jobs and Symptoms](#)
  3. [Alphabetically](#)
- **High Risk Jobs**
  1. [By Types of Jobs](#)
  2. [Alphabetically](#)

**Haz-Map:** Information on Hazardous Chemicals and Occupational Diseases  
by  
**Jay A. Brown, M.D., M.P.H.**

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



## Haz-Map

Haz-Map is an occupational health database designed for health and safety professionals and for consumers seeking information about the health effects of exposure to chemical and biological agents used in industry, on the job, and at home. Haz-Map lists more than 3,200 chemical and biological agents with links to at-risk occupations and approximately 225 associated occupational diseases and their symptoms. The database was compiled from information from occupational medicine textbooks, journal articles, and electronic databases.

The screenshot shows the Haz-Map website interface. At the top, there is a banner with the title "Haz-Map Occupational Exposure to Hazardous Agents" and logos for SIS and NLM. Below the banner is a search bar with a "Search" label and a text input field. To the right of the search bar are four icons: "Agent" (flask), "Disease" (bacteria), "Job" (worker), and "Text Search" (magnifying glass). A red box highlights the "Text Search" icon, with a red arrow pointing to the text "Text Search" on the right. Below the search bar is a navigation menu with tabs for "Haz-Map Search", "More Searches", "Haz-Map Help", "Glossary", and "References". The main content area is titled "Browse Haz-Map" and contains three sections: "Hazardous Agents", "Occupational Diseases", and "High Risk Jobs". Each section has a list of links for browsing. Red boxes with arrows point to these sections, providing definitions: "Agents: Chemical and biological agents associated with occupational diseases.", "Diseases: Medical conditions and symptoms based on the International Classification of Diseases (ICD-9) system.", and "Jobs: High risk jobs and tasks that could result in exposure to hazardous agents." At the bottom of the page, there is a footer with the text "Haz-Map: Information on Hazardous Chemicals and Occupational Diseases by Jay A. Brown, M.D., M.P.H." and the URL "http://hazmap.nlm.nih.gov".

### Searching Haz-Map

You can search Haz-Map by keyword, agent, disease, or job from almost any page of the site. Simply enter your query in the search box and click the appropriate icon (Agent, Disease, Job, or Text Search) to the right of "as." Click the **Text Search** icon to search in all categories. The results will display in relevancy ranked order.

You can also browse alphabetically in each category or by Types of Agents, Adverse Effects, Types of Diseases, Jobs and Symptoms, or Types of Jobs by clicking the appropriate link.

## Chemical Searching

If there is an exact match of an agent name with the query, the primary record will be returned first in the search results. If the search query is enclosed by double quotes (""), only the primary record will be displayed. You can also search a chemical by its CAS Registry Number.

## More Searches

Click the **More Searches** tab to search alphabetically and by types in other categories, including Non-Occupational Activities, Industries, Job Tasks, Processes, and Symptoms/Findings.

## Glossary

Click the **Glossary** tab to find definitions of technical terms. The **Agents** table contains hyperlinks to the glossary for selected agent names.

## Additional Resources

For further information, we recommend these additional resources:

- Haz-Map Help  
<http://hazmap.nlm.nih.gov/hazhelp.html>
- Haz-Map Brochure  
<http://hazmap.nlm.nih.gov/635906-brochure.pdf>
- Sources of Information for Haz-Map  
<http://hazmap.nlm.nih.gov/hazref.html>

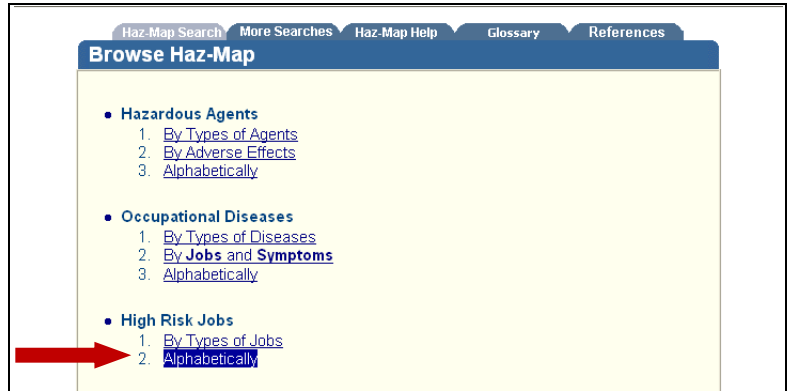


# Haz-Map Search Exercises

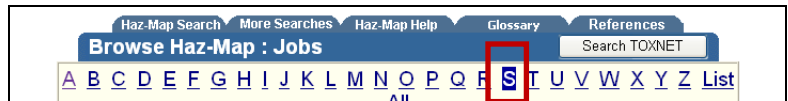
**Search Example: What are some high risk tasks associated with sheet metal workers?**

Suggested Solution:

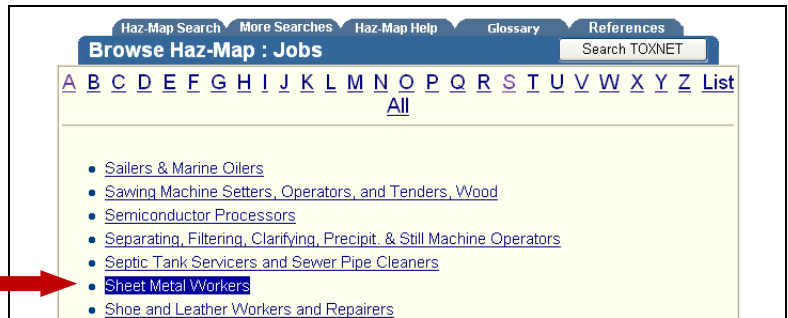
- Go to <http://hazmap.nlm.nih.gov>
- Under **High Risk Jobs**, click Alphabetically



- Click S



- Click Sheet Metal Workers



- Click the high risk job task of your choice
- Review the information about this job task
- Click the **Haz-Map Search** tab to prepare for the next search

The screenshot shows the 'Browse Haz-Map' interface. At the top, there are navigation tabs: 'Haz-Map Search' (highlighted with a red box), 'More Searches', 'Haz-Map Help', 'Glossary', and 'References'. Below the tabs is a search bar labeled 'Search TOXNET'. The main content area displays details for the job 'Sheet Metal Workers'.

<b>Job Name</b>	Sheet Metal Workers
<b>Description</b>	Fabricate, assemble, install, and repair sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings. Work may involve any of the following: setting up and operating fabricating machines to cut, bend, and straighten sheet metal; shaping metal over anvils, blocks, or forms using hammer; operating soldering and welding equipment to join sheet metal parts; inspecting, assembling, and smoothing seams and joints of burred surfaces. Include sheet metal duct installers who install prefabricated sheet metal ducts used for heating, air conditioning, or other purposes.
<b>Category</b>	Construction
<b>SOC Code</b>	47-2211
<b>Synonyms</b>	Sheet metal duct installers
<b>Related Information in Haz-Map</b>	
<b>Job Tasks</b>	High risk job tasks associated with this job: <ul style="list-style-type: none"> <li>• <a href="#">Arc weld aluminum</a></li> <li>• <a href="#">Arc weld stainless steel</a></li> <li>• <a href="#">Decompose chlorinated solvents by UV light or heat from welding</a></li> <li>• <a href="#">Degrease metal</a></li> <li>• <a href="#">Gas or arc weld on galvanized metal</a></li> <li>• <a href="#">Gas weld or cut in a confined space</a></li> <li>• <a href="#">Handle agents that cause allergic contact dermatitis or contact urticaria</a></li> <li>• <a href="#">Heat or machine chromium alloys</a></li> <li>• <a href="#">Installed insulation before 1975</a></li> <li>• <a href="#">Remove insulation installed before 1975</a></li> <li>• <a href="#">Spray polyurethane foam insulation</a></li> <li>• <a href="#">Use solder containing colophony, zinc chloride, or ammonium chloride flux</a></li> <li>• <a href="#">Weld mild steel</a></li> <li>• <a href="#">Weld on metal painted with chlorinated polyester paint</a></li> </ul>

**Exercise 1: What are some of the agents, jobs, and diseases associated with asthma? Perform a text search.**

Keyboard Help:

- |        |   |
|--------|---|
| Type   | <b>asthma</b> in the search box                                 |
| Click  | <b>Text Search</b> to the right of the search box               |
| Scroll | down the page and view the lists of records under each category |
| Click  | the record of your choice in the <b>Agents</b> list             |
| Review | the results   |
| Click  | your browser's back button to return to the search results page |
| Scroll | down to the search results found in the <b>Jobs</b> table       |
| Click  | the record of your choice                                       |
| Review | the results   |
| Click  | the <b>Haz-Map Search</b> tab to prepare for the next search    |

**Exercise 2: What are some hazards associated with the use of *cyclohexane* in the workplace?**

Suggested Solution:

- Click **Alphabetically** under **Hazardous Agents**
- Click **C**
- Click **Cyclohexane**
- Review the results
- Click the **Haz-Map Search** tab to conduct a new search

**Exercise 3: How can I find information on hazardous agents used in welding?**

Suggested Solution:

- Click the **More Searches** tab
- Click **By Types of Processes** (under **Processes**)
- Click **WELD**
- Click **Welding**
- Review the record

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# TRI and TOXMAP

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 | TRI

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

**Select Database**

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

**Additional Resource**

- CPDB

**Search TRI**

Chemical Name or CAS Registry Number

Search Clear Help

Add synonyms and CAS numbers to search:  
 Yes  No

TRI Files:  
 Select All

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

**Env. Health & Toxicology**

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

**Support Pages**

- Help
- Fact Sheet
- Sample Record
- TOXNET FAQ

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

United States National Library of Medicine  
**TOXMAP**  
 Environmental Health e-Maps

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

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

**Quick Search**

Select Dataset(s):  
 TRI  Superfund NPL

Chemical Name

City

State ZIP [Lookup]

Search Clear

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

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

**May is Clean Air Month**

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

**Environmental News from EPA:**

- EPA Helps Americans Get Ready for Summer with Insect Repellents
- Bothell wireless facility faces \$57,000 fine for diesel spill
- EPA Invites Public to Comment at May 13 Meeting on Proposed Cleanup Options for Occidental

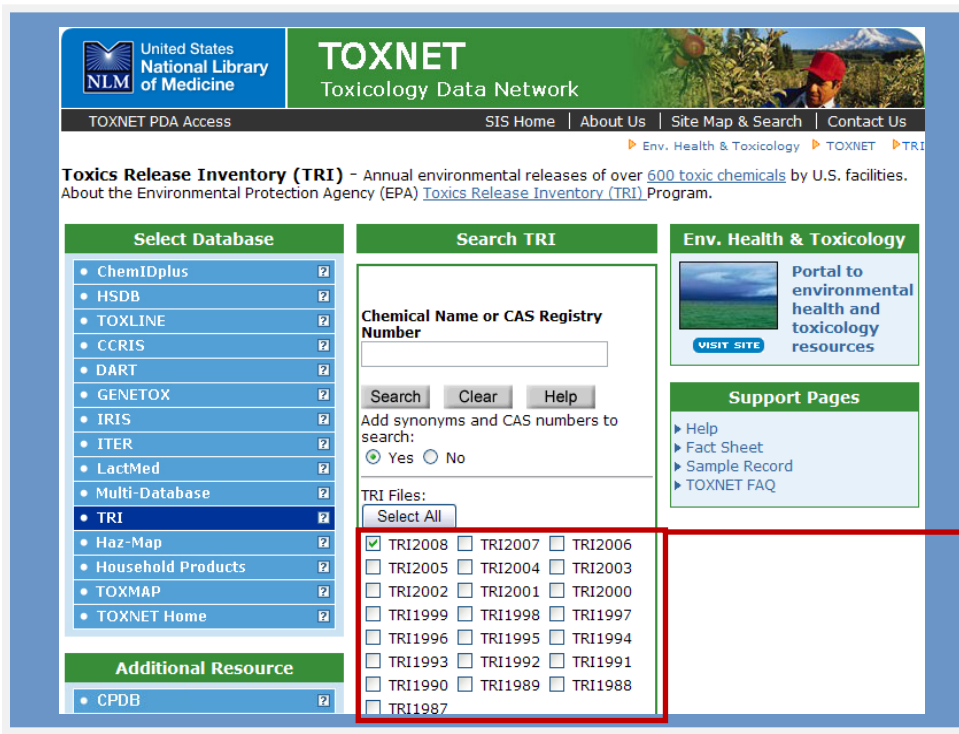
TRI facilities (blue) and Superfund NPL sites (red).

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



# Toxics Release Inventory (TRI)

The Toxics Release Inventory (TRI) is a publicly available resource of the U.S. Environmental Protection Agency containing detailed information on approximately 600 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. TRI's data, beginning with the 1987 reporting year, cover air, water, land, and underground injection releases as well as transfers to waste sites.



<http://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 Names**  
(Separate multiple entries with commas)

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

State
  City/State
  County/State
  Zip

**Standard Industrial Classification Code, North American Industry Classification System Code**  
(Separate multiple entries with commas)

Greater Than  lbs for  
 No Release Selected

- Facility Location
- Select State, City/State, County/State, or Zip
- 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, or total environmental release)

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.

## 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 on the right to visually explore on-site releases in TOXMAP

The screenshot shows the TRI2008 record interface. At the top, there are navigation buttons: 'Next Item', 'Search Results', 'Basic Search', 'Details', 'Other Files', 'Download', 'Browse Index', and 'Help'. A 'Toxics Release Inventory' sidebar on the left shows 'TRI2008'. The main content area is divided into a 'Table of Contents' on the left and a detailed record on the right. The record title is 'BENZENE GRIFFITHENERGY INC BIG FLATS, NY'. The 'Facility Identification' section includes: Facility Name/Address: GRIFFITHENERGY INC, 3351 STATE RT 352, BIG FLATS, (CHEMUNG County) NY 14814; EPA Facility Number: 14814GRFFFTSTATE; EPA Region: 2; Federal Facility Status: Commercial; Covered Facility: 0 - entire. A 'Map it with TOXMAP' button is highlighted in a red box in the top right of the record area.

## **Additional Resources**

For further information, we recommend these additional resources:

- TRI Fact Sheet  
<http://www.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.

<http://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

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 **Search** Help Contact Us

► Edit Search Display Map Set Region Other Data

**Search**

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

**CHOOSE A CHEMICAL** ?

Chemical:  CAS RN ? :

TRI or Superfund Chemical

**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 ? 2006 to 2006  
 Release Exceeds ?  lbs.

NPL Site Name   
 EPA ID ?

NPL Status ?  All  
 Final  
 Proposed  
 Deleted

Hazard Ranking System Score ? 0 to 100

## **Additional Resources**

For further information, we recommend these additional resources:



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



## 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:

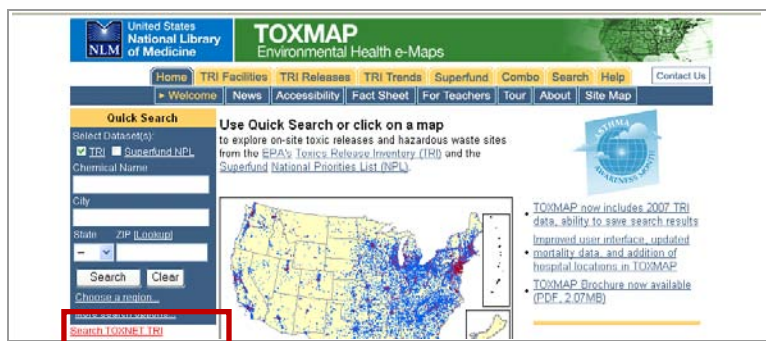
- Go to <http://toxnet.nlm.nih.gov>
- Click **TRI** in the **Select Database** column
- Type **benzene** in the Chemical Name or CAS Registry Number search box
-  TRI2008 is selected by default
- Type **NC** in the Facility Location search box
-  State is selected by default
- Click the **Search** button


- 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 North Carolina in 2008?

Suggested Solution:


- Type **methanol** in the Chemical Name or CAS Registry Number search box
- Type **NC** in the **Facility Location** search box
- Click the **Search** button
- Click the **Calculate Totals** button at the left of the page
- 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 North Carolina 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 100 lbs from the **Greater Than** pull-down menu at the bottom of the limits section
- Select Total On-Site Air Release from the **for** pull-down menu
- Click the **Search** button
- Click the first facility in the list of facility/substance names
- Click Total Air Release in the Table of Contents under **On-site Releases of Chemical**

- Review the information in the right frame
- Click the **Search Results** button in the header frame at the top of the page
- Click the **Map it with TOXMAP** button ()
- Select NC from the **ZOOM TO** pull-down menu to the left of the map
- Click TRI on-site release details to the right of the map below **Map Details**
- View the map and scroll down to review a summary of the releases for each facility

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

Suggested Solution:

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

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

Suggested Solution:

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

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# Tox Town and ToxMystery



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



<http://toxmystery.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.



<http://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

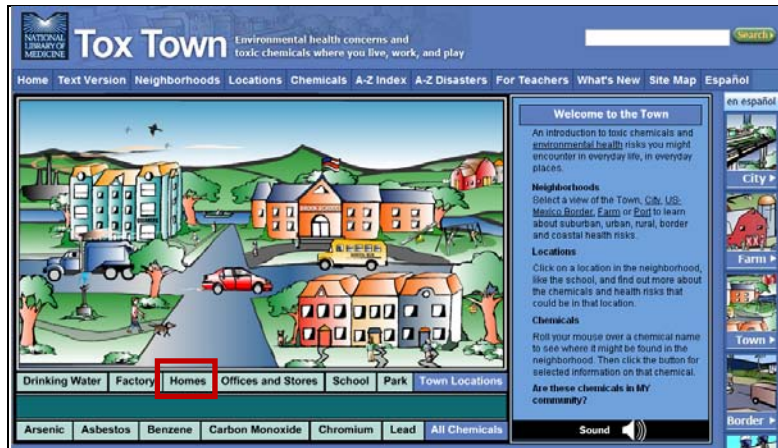
**Search Example: Search the Town and find general information about molds.**

Suggested Solution:

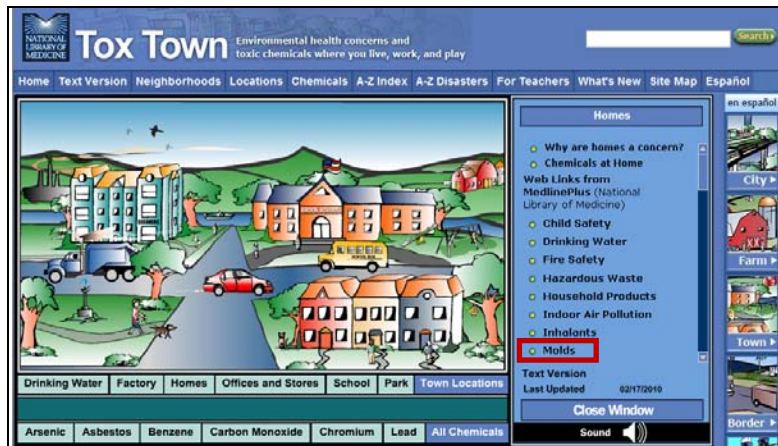
- Go to <http://toxtown.nlm.nih.gov>
- Click Town



- Click Homes below the town scene



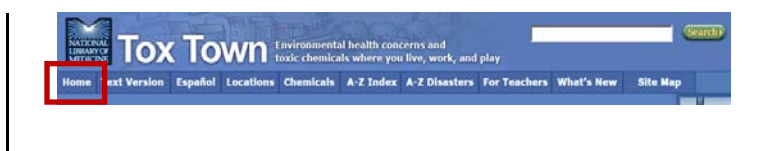
- Click Molds from the list of Web Links from MedlinePlus to the right of the illustrations



- 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 health and safety concerns associated with teens working at fast food restaurants?**

Suggested Solution:

- Click **City**
- Click **City Locations**
- Click **Food Services** under “all locations” to the right
- Click **Teen Worker Safety in Restaurants**
- Review the information and close the OSHA window
- Click Home in the top left corner to prepare for the next search

**Exercise 3: Utilizing the alphabetic index find information on the agricultural runoff.**

Suggested Solution:

- Click **A-Z Index**
- Click Agricultural Runoff under **Runoff**
- Review the information

## ToxMystery

ToxMystery is an interactive learning site designed for children ages 7 to 10. With lively animations, surprising sound effects and lots of positive reinforcement, ToxMystery provides a fun, game-like experience while teaching important lessons about potential environmental health hazards in the home. The site is available in English and Spanish, and players can toggle between the two languages as they explore. ToxMystery can be used in science and health classes, as well as in Spanish and English language classes.



### Organization and Features

ToxMystery provides a fun, game-like experience guided by “Toxie” the cat, who helps players find hidden hazards in each room of the house and offers hints when needed. Toxie will dance when the player has found all the hazards in a room. When all the risky places in the house have been discovered, Toxie delivers an animated celebration and players can print a personalized certificate of completion.

Additional features include:

- **Parent Resources/Para los padres:** More detailed information about everyday environmental hazards that can be harmful to one’s health.
- **For Teachers/Para maestros:** More than 10 downloadable activity pages and an illustrated glossary of the words used in ToxMystery that can be used in elementary schools.
- **Getting Started/Cómo comenzar:** Simple instructions for playing the game.

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# NLM Gateway



The screenshot shows the NLM Gateway website. At the top left, it says "NLM Gateway" and "A service of the U.S. National Institutes of Health". To the right, it says "Your Entrance to Resources from the National Library of Medicine" above a collage of people. Below this is a navigation bar with links: Home, Term Finder, Limits/Settings, About, Help, and FAQ. The main content area has a search box with "Search" and "Clear" buttons. Below the search box 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, there are links for "Contact Us", "U.S. National Library of Medicine", "National Institutes of Health", "Health & Human Services", "Privacy", "Copyright", "Accessibility", "Freedom of Information Act", and "USA.gov".

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



## NLM Gateway

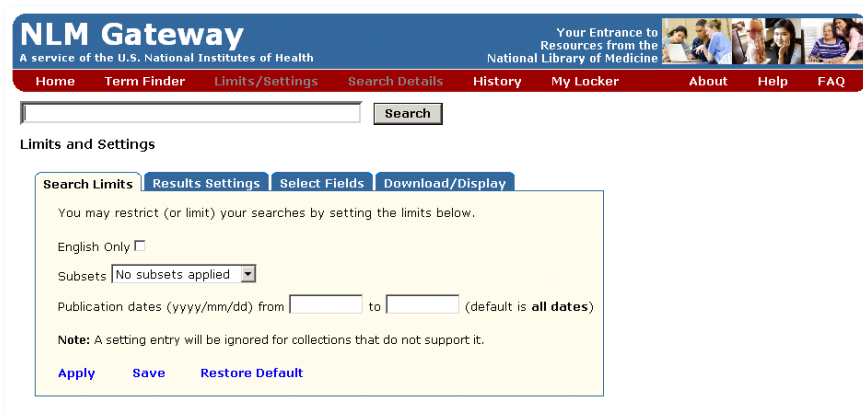
NLM Gateway is a Web-based system that lets users search simultaneously in multiple retrieval systems at the National Library of Medicine, including PubMed and MedlinePlus. The Gateway also provides a search interface for meeting abstracts.



### Searching NLM Gateway

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

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



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

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

## Search Results

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

The screenshot shows the NLM Gateway search results page for the query 'hiv aids'. The page features a navigation bar with links for 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, a 'Results Summary' indicates that 163766 records were found. 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 in 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  
<http://nnlm.gov/training/resources/gwtri.pdf>
- NLM Gateway Training Manual  
<http://www.nlm.nih.gov/pubs/manuals/gwclintrials.doc>



## NLM Gateway Search Exercises

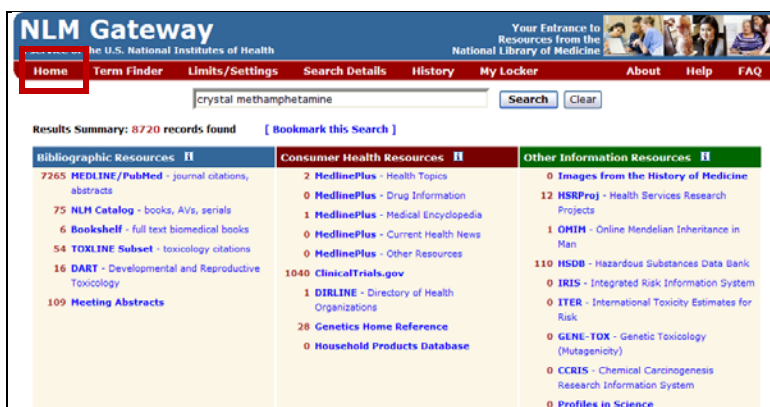
**Search Example: Locate information on crystal methamphetamine.**

Suggested Solution:

- Go to <http://gateway.nlm.nih.gov>
- Type **crystal methamphetamine** in the search box
- Click the **Search** button



- 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



**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/Setting** button
- Select **AIDS** 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** button 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

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### **Agency for Healthcare Research and Quality**

<http://www.ahrq.gov>

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

### **American Medical Association**

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

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

### **BioMed Central**

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

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

### **CDC Diseases and Conditions**

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

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

### **CDC Environmental Health**

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

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

### **Center for Drug Evaluation and Research**

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

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

**ClinicalTrials.gov**

<http://clinicaltrials.gov>

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

**CNN Health**

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

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

**Directory of Open Access Journals**

<http://www.doaj.org>

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

**Doctor's Guide**

<http://www.docguide.com>

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

**U.S. Food and Drug Administration**

<http://www.fda.gov>

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

**Health Disparities/CDC**

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

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

**Health Disparities: A Selected Bibliography**

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

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

**Health Hotlines**

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

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

### **Health Literacy Training [FREE]**

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

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

### **Healthfinder**

<http://www.healthfinder.gov>

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

### **Healthy People 2010**

<http://healthypeople.gov>

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

### **Healthy People 2010 Information Access Project**

<http://phpartners.org/hp>

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

### **Healthy Schools Healthy Youth**

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

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

### **Medical Matrix**

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

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

**MedicineNet**

<http://www.medicinenet.com>

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

**MedlinePlus**

<http://medlineplus.gov>

—A consumer health Web site from the National Library of Medicine, providing health professionals and consumers a wealth of authoritative, up-to-date medical information on over 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®**

<http://www.medscape.com>

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

**My Family Health Portrait**

<https://familyhistory.hhs.gov>

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

**National Library of Medicine**

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

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

### **National Library of Medicine Free Biomedical Literature Resources**

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

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

### **National Medical Association**

<http://www.nmanet.org>

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

### **National Women's Health Information Center**

<http://www.womenshealth.gov>

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

### **NIH Health Information**

<http://health.nih.gov>

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

### **NursingNet**

<http://www.nursingnet.org>

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

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

<http://www.omhrc.gov>

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

### **Partners in Information Access for the Public Health Workforce**

<http://phpartners.org>

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

**Public Health Information and Data Tutorial**

<http://phpartners.org/tutorial>

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

**National Clearinghouse for Alcohol and Drug Information**

<http://ncadi.samhsa.gov>

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

**Public Library of Science**

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

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

**PubMed**

<http://pubmed.gov>

—One of the National Library of Medicine's free search services. It provides access to over 19 million citations in MEDLINE and about HIV/AIDS, with links to participating online journals.

**Rural Assistance Center State Resources**

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

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

**Virtual Hospital®**

<http://uihealthcare.com/vh>

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

**WebMD**

<http://www.webmd.com>

—Provides a wide range of online health information for health care professionals and consumers. WebMD Health® includes consumer health information, health and wellness news, support

communities, and interactive health management tools. Medscape® from WebMD provides clinical information and educational tools for health care professionals, including online continuing education, online coverage of medical conferences, access to over 100 medical journals, and daily medical news.

**WholeHealthMD**

<http://www.wholehealthmd.com>

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

## Selected Internet Resources in HIV/AIDS

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**AIDS.GOV**

<http://aids.gov>

**AIDS.ORG**

<http://aids.org>

**AIDS Action Committee of Massachusetts**

<http://www.aac.org>

**AIDS Education Global Information System (AEGIS)**

<http://www.aegis.org>

**AIDS History Project**

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

**AIDS Images Library**

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

**AIDS Information and Controversy 1985–1995**

<http://aidsinfobbs.org>

**AIDS InfoNet**

<http://www.aidsinfonet.org>

**AIDS Project Los Angeles**

<http://www.apla.org>

**AIDS Resource List**

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

**AIDS Treatment Data Network**

<http://www.atdn.org>

**AIDS Treatment News**

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

**AIDSinfo**

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

**aidsinfonyc.org**

<http://www.aidsinfonyc.org>

**Aidsmap**

<http://www.aidsmap.com>

**All the Virology on the WWW**

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

**The Alternative Medicine HomePage**

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

**American Foundation for AIDS Research (amfAR) Global Link**

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

**American Red Cross**

<http://www.redcross.org>

**Australian Federation of AIDS Organisations**

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

**The Body**

<http://www.thebody.com>

**California AIDS Clearinghouse**

<http://www.lagaycenter.org>

**Canadian AIDS Treatment Information Exchange**

<http://www.catie.ca>

**Canadian HIV Trials Network**

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

**Center for AIDS Prevention Studies**

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

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

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

**Center for Mental Health Research on AIDS (CMHRA)**

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

**Critical Path AIDS Project**

<http://www.critpath.org>

**GMHC on the Web Gay Men's Health Crisis**

<http://www.gmhc.org>

**Healthfinder.gov**

<http://www.healthfinder.gov>

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

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

**Health Services/Technology Assessment Text (HSTAT)**

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

**HIV Databases**

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

**HIV InSite**

<http://hivinsite.ucsf.edu>

***HIV/AIDS Prevention Web Sites for Communities of Color***

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

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

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

**HIV/AIDS Vaccines**

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

**HIVandHepatitis.com**

<http://hivandhepatitis.com>

**HIVdent (dental information)**

<http://www.hivdent.org>

**HIVpositive.com**

<http://www.hivpositive.com>

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

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

**International AIDS Society**

<http://www.iasociety.org>

**International Association of Physicians in AIDS Care**

<http://www.iapac.org>

**Johns Hopkins HIV Guide**

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

**Joint United Nations Programme on HIV/AIDS**

<http://www.unaids.org>

**MedlinePlus AIDS**

<http://medlineplus.gov/aids>

**Medscape HIV/AIDS**

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

**National AIDS Treatment Advocacy Project (NATAP)**

<http://www.natap.org>

**National Clearinghouse for Alcohol and Drug Information**

<http://ncadi.samhsa.gov>

**National HIV/AIDS Clinicians' Consultation Center (NCCC)**

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

**National Institute of Allergy and Infectious Diseases (NIAID)**

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

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

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

**National Library of Medicine HIV/AIDS Portal**

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

**National Minority AIDS Council**

<http://www.nmac.org>

**National Prevention Information Network**

<http://www.cdcnpi.org>

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

<http://www.aidsnyc.org>

**NIAID Division of Acquired Immunodeficiency Syndrome**

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

**Partners in Information Access for the Public Health Workforce—HIV**

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

**Positive.org**

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

**Project Inform**

<http://www.projinf.org>

**PubMed**

<http://pubmed.gov>

**PubMed Training Manual (NLM)**

[http://www.nlm.nih.gov/pubs/web\\_based.html](http://www.nlm.nih.gov/pubs/web_based.html)

**PubMed Tutorial (NLM)**

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

**Rural Center for AIDS/STD Prevention**

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

**San Francisco AIDS Foundation**

<http://www.sfaf.org>

**Social Security Administration**

<http://www.ssa.gov>

**The TB/HIV Research Laboratory at Brown University**

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

**U.S. Department of Health and Human Services**

<http://www.hhs.gov>

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

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

**World Health Organization, Tuberculosis**

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

**Yahoo AIDS/HIV Resources**

[http://dir.yahoo.com/health/diseases\\_and\\_conditions/aids\\_hiv](http://dir.yahoo.com/health/diseases_and_conditions/aids_hiv)

# Appendix



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



## 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: <a href="http://www.thinktwice.com">http://www.thinktwice.com</a>					
2: <a href="http://www.hivpositive.com">http://www.hivpositive.com</a>					
3: <a href="http://www.healthfree.com">http://www.healthfree.com</a>					
4: <a href="http://www.malepregnancy.com">http://www.malepregnancy.com</a>					
5: <a href="http://www.drkoop.com">http://www.drkoop.com</a>					
6: <a href="http://www.drugs.com">http://www.drugs.com</a>					
7: <a href="http://www.thebody.com">http://www.thebody.com</a>					
8: <a href="http://nisa-sids.org">http://nisa-sids.org</a>					
9: <a href="http://www.uoaa.org">http://www.uoaa.org</a>					
10: <a href="http://www.webmd.com">http://www.webmd.com</a>					
11: <a href="http://www.drclark.net">http://www.drclark.net</a>					
12: <a href="http://www.aaem.com">http://www.aaem.com</a>					
13: <a href="http://www.medicalacupuncture.org">http://www.medicalacupuncture.org</a>					
14: <a href="http://www.amaasportsmed.org">http://www.amaasportsmed.org</a>					
15: <a href="http://www.bonetumor.org">http://www.bonetumor.org</a>					
16: <a href="http://www.biausa.org">http://www.biausa.org</a>					
17: <a href="http://www.connectforkids.org">http://www.connectforkids.org</a>					

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# Savvy Health Surfing

## Questions to Ask About Health-related Web Sites



### Authority and Accuracy

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

### Coverage

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

### Currentness

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

### Objectivity

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

### Design Features

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



## Contacting the National Library of Medicine for Database Assistance

Toll-free: 888-FIND-NLM (346-3656)  
E-mail: [custserv@nlm.nih.gov](mailto:custserv@nlm.nih.gov)  
TOXNET E-mail: [tehip@teh.nlm.nih.gov](mailto:tehip@teh.nlm.nih.gov)

### Online Resources

Online Training Manuals	<a href="http://www.nlm.nih.gov/pubs/web_based.htm">http://www.nlm.nih.gov/pubs/web_based.htm</a> (ClinicalTrials.gov, NLM Gateway, PubMed, TOXNET)
Tutorials	<a href="http://www.nlm.nih.gov/bsd/disted/pubmedtutorial/">http://www.nlm.nih.gov/bsd/disted/pubmedtutorial/</a> (PubMed)
Fact Sheets	<a href="http://www.nlm.nih.gov/pubs/factsheets/factsheets.html">http://www.nlm.nih.gov/pubs/factsheets/factsheets.html</a>
Frequently Asked Questions	<a href="http://www.nlm.nih.gov/services/faq.html">http://www.nlm.nih.gov/services/faq.html</a>
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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