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Finding Quality Drug Information on the Internet

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Conference Abstract: Learn the best sources for free, high quality drug information on the Internet, including government, pharmacy association, medical, and consumer sites. The speaker will also address dietary supplements and herbal information.

Today's health researcher can find a plethora of drug information on the Internet, as well as in their spam email. What s/he may not be able to find is quality drug information.

In the 2006 Tennessee Outreach State Planning Team survey of health information consumers, funded by the National Network of Libraries of Medicine, respondents proclaimed drug information as a key need. Yet consumers are not always satisfied with the information that they find. The difference may be in knowing where to look.

Health professionals use the most scientifically valid or "best evidence" articles to devise practice guidelines. The guidelines written by national associations and agencies set the standards. The [Agency for Healthcare Research and Quality](#) seeks to provide access to evidence-based health information to the public. Two key sites link from the AHRQ site. The [US Preventive Services Task Force Recommendations](#) provide guidelines for preventive services, such as screening tests by age category. The [National Guidelines Clearinghouse](#) organizes treatment guidelines and analyzes each guideline for the level of evidence.

Evidence-based medicine is the process whereby health professionals ask a clinical question, seek the best evidence available in the scientific literature, judge the validity of that evidence, make a decision to diagnose or treat based on the evidence, and then judge the effectiveness of their decisions. Evidence-based medicine is another tool for health professionals to use in deciding the best treatment for patients.

If there is not a guideline available from AHRQ, then health consumers or health professionals can use PubMed to look for scientific articles. One often hears conflicting news on whether a drug or supplement is helpful or harmful. Searching the PubMed database can help the researcher to answer the question. PubMed is the National Library of Medicine's premier medical database, indexing more than 4000 biomedical journals. It is a live index, revised daily. One can easily retrieve thousands of articles on a topic.

Certain search techniques assist the searcher in finding the best evidence more quickly. Use the Limits feature to restrict dates to five years or less. Anything older is usually considered historical. One can also limit to English, Human and/or an Age Group. For best evidence, limit the article type to Randomized Controlled Trial, Meta-analysis, Practice Guideline, or Review. In the Search box, one can add a term to the topic search, for example, "hormone replacement therapy AND cohort." PubMed has a special Clinical Queries feature that simplifies the search for best evidence, systematic reviews, and genetics information. For more information on searching PubMed, try the [tutorial](#) available at the site. Or call a medical librarian.

Free full-text health sciences articles are also available on the Internet. PubMed, through PubMed Central, provides access to selected articles. As you search PubMed, icons will identify articles with free full-text. Other sources for free full-text are [DOAJ](#) and [Freemedicaljournals.com](#). Not all medical journals will be free full-text on these sites. Even the ones that are listed have limitations by date or may not post full contents. [eMedicine](#) is a free, peer-reviewed electronic journal. To search it in Google, simply use eMedicine as one of your search terms. Naturally, the Tennessee Electronic Library opens access to numerous health journals full-text, especially through *Health Reference Center Academic* or *Health and Wellness Resource Center*. [Medscape](#) provides articles and will send email updates. [BioMedCentral](#) provides some free peer-reviewed biomedical journals. One should keep in mind that articles from medical journals are highly technical and often require a consumer to seek consultation with a health professional for interpretation.

Full-text books and subject directories provide more guidance. One can find the full-text of the [Merck Manuals](#), including the classic medical text, the *Home Edition*, the *Merck Manual for Geriatrics*, and the veterinary text. Subject directories include links to professional pharmacy sites and to a mixture of technical and consumer sites. The [Dalhousie University College of Pharmacy](#) excels in their organization and selection of pharmacy links. The [HardinMD](#) metadirectory offers links and images. [Yahoo Pharmacy](#) leads to more links.

The National Library of Medicine provides two more databases of use in seeking drug information. [Toxnet](#) is a collection of databases detailing chemical toxicities of everything from prescription drugs to industrial chemicals to household products. [ClinicalTrials](#) lists clinical trials, primarily funded by the National Institute of Health. Many of these trials involve experimental drugs.

The best sites for information on herbal and nutritional supplements guide the researcher to up-to-date and valid references. The [MedlinePlus](#) subject pages for [Herbal Medicine](#) and [Dietary Supplements](#) offer introductory information. MedlinePlus also offers [Drug Information](#) links from the home page using USP-DI and MedMaster as sources for consumer health information. The [Rosenthal Center](#) at Columbia University and [Memorial Sloan Kettering](#) sites link various supplements to cancer treatment and support but also provide valid general appraisal of supplements. The federal Office of Dietary Supplements maintains the [International Bibliographic Database on Dietary Supplements](#) (IBIDS). Geared for the scientist or health professional, this free database offers citations to numerous science journals and government reports.

While reading more technical articles or abstracts, individuals may need to have certain terms defined. [LibrarySpot](#) links to a number of medical and chemical dictionaries, including the *Merriam Webster Medical Dictionary* at MedlinePlus.

Statistics on diseases and some statistics on use of drugs can be located at the [National Center for Health Statistics](#). The [University of Michigan](#) maintains a highly useful subject directory of statistical sources. Remember that in order to find a statistic, someone must have found it profitable to count.

Websites abound for the identification of drugs. [Google](#) can prove helpful in seeking information on a drug very new to the market or a difficult to identify supplement since the international scope of the search engine provides a wide view. One can also search for an item in PubMed, keeping in mind that one should use the generic name whenever possible. PubMed citations will illustrate the current use of the drug and the laboratory research. Detailed general information can be located at the [FDA](#) site, on the Pharmacy Journal's free [Identification of Foreign Drugs](#) site, and from the National Library of Medicine's [DailyMed](#), [Drugs.com](#), and [HerbMed.com](#) include valuable, reliable drug information on their commercial sites, as does [RxList](#), where one can find the list of 100 most used prescription drugs. [Consumer Reports Best Buy Drugs](#) alerts readers to the costs of prescription drugs by pharmacy.

With this plethora of drug information available, keeping up may seem overwhelming. Fortunately, several sites offer the means. First of all, one can set up a current awareness topic on PubMed through My NCBI. The newest citations will then be emailed to the participant daily, weekly, or monthly. Medscape, a professional WebMD site, provides email updates. Of course, one can also set up RSS feeds of favorite web sites or use Google Alerts. The [Doctors Guide](#) and [PharmaTimes](#) provide news on the most recently approved or withdrawn drugs with commentary.

If one wants to join in the online evaluation of drugs or supplements, a variety of forums are available. Of course, [Google](#) and [Yahoo](#) offer discussion lists and blogs. [Bloglines](#) and [Blogspot](#) offer the opportunity to browse participant comments. [AskaPatient.com](#) offers patient evaluation of the positive and negative effects of many commonly used medications. [HealingWell](#) also provides reviews. [RxList](#) and [PillBot](#) provide costs. If affording prescription drugs is an issue, [Partnership for Prescription Assistance](#) lists the links to drug companies that will help. Medicare coverage questions can be answered on [Kiplinger for Medicare](#). [MedMaster](#) provides additional consumer drug information. [Pharmacy Times](#) provides news for pharmacists.

Finally, Tennessee's medical librarians can assist in answering queries for drug information. The [UT and ETSU medical libraries](#) are open to the public. Librarians will answer questions via phone or email, using a variety of sources unique to medical libraries including medical reference books, proprietary databases, and other tools.

Resources

Practice Guidelines

- National Guidelines Clearinghouse <http://www.guideline.gov/>
- Agency for Healthcare Research and Quality <http://www.ahrq.gov/>
- US Preventive Services Task Force Recommendations <http://www.ahrq.gov/clinic/cps3dix.htm>

PubMed Tips

- Use the Limits
- Add a search term to your topic
 - "hormone replacement therapy AND cohort"
- Use Clinical Queries to find best evidence
- PubMed tutorial <http://www.nlm.nih.gov/bsd/disted/pubmed.html>

Free Full-Text Journals on the Internet

- PubMed Central
- <http://www.DOAJ.org>
- <http://www.Freemedicaljournals.com>
- <http://www.eMedicine.com>
- TEL— *Health Reference Center Academic or Health and Wellness Resource Center*
- <http://www.Medscape.com>
- <http://www.biomedcentral.com/>

Other Useful Sites

- Merck Manuals <http://www.merckmedicus.com/>
- Subject Directories
 - Dalhousie University College of Pharmacy <http://dir.pharmacy.dal.ca/>
 - HardinMD-Pharmacy <http://www.lib.uiowa.edu/hardin/md/pharm.html>
 - Yahoo-Pharmacy <http://dir.yahoo.com/Health/Pharmacy/>
- National Library of Medicine
 - Toxnet <http://sis.nlm.nih.gov/enviro.html>
 - <http://ClinicalTrials.gov>

Herbal and Dietary Supplements

- MedlinePlus <http://www.medlineplus.gov>
 - Herbal Medicine <http://www.nlm.nih.gov/medlineplus/herbalmedicine.html>
 - Dietary Supplements <http://www.nlm.nih.gov/medlineplus/dietarysupplements.html>
 - Drugs, Supplements, and Dietary Information <http://www.nlm.nih.gov/medlineplus/druginformation.html>
- Rosenthal Center <http://www.rosenthal.hs.columbia.edu/CAM.html>
- Memorial Sloan Kettering About Herbs, Botanicals, and Other Products <http://www.mskcc.org/mskcc/html/11570.cfm>
- International Bibliographic Database on Dietary Supplements IBIDS http://ods.od.nih.gov/Health_Information/IBIDS.aspx

More Useful Sites

- Dictionaries and Encyclopedias
 - MedlinePlus <http://www.medlineplus.gov>
 - Library Spot <http://www.libraryspot.com>
- Statistics
 - NCHS <http://www.cdc.gov/nchs/>
 - University of Michigan <http://www.lib.umich.edu/govdocs/>

Drug Identification-Finding Drugs or Herbals

- Google <http://www.google.com>
- Drugs@FDA <http://www.fda.gov>
- Identification of Foreign Medicines <http://www.pharmj.com/noticeboard/info/pip/foreignmedicines.html>
- <http://PubMed.gov>
- <http://www.Drugs.com>
- <http://www.HerbMed.com>
- DailyMed <http://dailymed.nlm.nih.gov/dailymed/about.cfm>
- Rxlist <http://www.rxlist.com/>
- Consumer Reports Best Buy Drugs <http://www.crbestbuydrugs.org/index.shtml>

Keeping Up

- PubMed My NCBI
- Medscape
- RSS feeds
- Google Alerts
- Doctors Guide-Recently Approved Drugs <http://www.docguide.com>
- PharmaTimes <http://www.pharmatimes.com>

Discussion Lists, Blogs, and Other Tools

- Google – discussion groups and blogs
- Yahoo chat or groups
- Blogs
 - Starting one <http://www.blogger.com>
 - Monitoring others
 - <http://www.bloglines.com/>
 - <http://www.blogspot.com>
- <http://www.HealingWell.com>
- RxList groups by drug topic and cost information
- <http://www.AskaPatient.com>
- <http://www.PillBot.com> for cost comparisons
- Kiplinger for Medicare <http://www.kiplinger.com/tools/medicare.php>
- Partnership for Prescription Assistance <http://www.pparx.org>
- MedMaster <http://www.safemedication.com/about/medmaster.cfm>
- Pharmacy Times <http://www.pharmacytimes.com/zone.cfm?zone=17>

Resource Libraries

- UT Health Sciences Center Memphis <http://library.utmem.edu>
- East Tennessee State University <http://com.etsu.edu/medlib>
- UT Preston Medical Library <http://gsm.utmck.edu/library>

Please send questions, comments, and suggestions to [Kanneese Woods](#) .

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