



# Searching MEDLINE

Betsey Brenneman  
Access Services Librarian

MEDLINE is the primary index for literature in the biomedical sciences, medicine, nursing, occupational therapy, speech and communication disorders, the health care system, and more. The MEDLINE database includes millions of citations, and obviously not all of them will be relevant to your individual information needs. Think carefully about your topic and be specific about the search concepts.

1. **When searching EBSCO or CSA interfaces, don't limit to full text**  
Do not refine your search or limit your results to full text. This will almost always result in virtually few hits. Both CINAHL and MEDLINE are primarily **citation only databases**. Occasionally you may find a full text link (now that we have CINAHL Plus Full Text). However, this is sporadic, so by not checking the full text limit box you will receive a more realistic return of what is available on your topic, including whatever is available in full text.
2. **Search for each concept as a separate set and then combine sets**  
Creating separate sets for each part of your topic allows you to modify your strategy and combine any sets. Example: Say you need information on clinics for congestive heart failure patients and whether or not these clinics can reduce the rate of readmissions or hospitalization. The important concepts are *congestive heart failure*, *outpatient clinics*, and *hospital readmission*. The function that combines these sets is done by selecting the "Search History" tab in each vendor platform.

The screenshot shows a search interface with a navigation bar containing tabs for 'Limits', 'Preview/Index', 'History', 'Clipboard', and 'Details'. The 'History' tab is selected. Below the tabs, there is a list of search history items:

- Search History will be lost after eight hours of inactivity
- Search numbers may not be continuous; all searches
- To save search indefinitely, click query # and select
- To combine searches use #search, e.g., #2 AND #3

Overlaid on the bottom right is a 'Search' box containing the following items:

- [#3](#) Search **hospital readmissions**
- [#2](#) Search **outpatient clinics**
- [#1](#) Search **congestive heart failure**

### 3. Keyword searching isn't always the best method.

Free text searching, or keyword is a great way to search most MEDLINE interfaces (Ebsco, CSA or PubMed), and sometimes it is the only way to search for a particular concept, especially if it is new. But keyword searching relies on the author's use of words in the title and/or abstract. Searching with keywords (free text) doesn't always guarantee that the article will be focused on the topic. To improve your retrieval rate, use several words or acronyms that express the concept.

### 4. Search with subject headings whenever possible

MEDLINE and CINAHL are databases indexed by subject experts who read the articles and assign specific terminology to describe the content of the articles. MEDLINE uses *Medical Subject Headings* or *MeSH*. CINAHL uses some of the same subject headings but also has other terms designed specifically for nursing and allied health. Subject headings are *controlled vocabulary* and ensure a consistent list of results based on the *concept* for which you are searching. Using the wrong term can produce inferior results. For example -

Alternative medicine Use: [Complementary Therapies](#)

### 5. Click on the Heading to view broader and narrower concepts

This allows you to view the "subject tree" organization of your topic. The function of "exploding" the term allows you to broaden or narrow your retrieval. For example, exploding the term "Complementary Therapies" gives you:

**Complementary Therapies +**

[Acupuncture Therapy +](#)

[Anthroposophy](#)

[Holistic Health](#)

[Homeopathy](#)

[Medicine, Traditional +](#)

### 6. You can combine free text searching and MeSH

To increase retrieval, try searching for the concept using subject headings and text words. This tip can also be used to retrieve a very specific term or phrase for which there is no good subject heading. For example, if you wanted to read about why a parent would refuse

to have their child immunized against measles:

(MH "Measles Vaccine") AND parents

This search retrieves around 200 articles vs. 5,000 that you would have to sift through since "parents" is not a standard subheading or qualifier

**7. Use "subheadings" to improve your retrieval**

Subheadings can further narrow a search to a specific aspect of a topic. The availability of subheadings varies according to the specific MeSH term. For example, add subheadings so your search looks like this: *methotrexate/ae,to,po* this will retrieve information on the *adverse effects, toxicity, or poisoning* of methotrexate. Don't worry - you don't have to memorize the abbreviations - all 3 vendors have limit screens where you can just click in a check box to automatically add "qualifiers" or subheadings to your search.

**8. Search MEDLINE and CINAHL separately**

While it is certainly possible to search both indexes at the same time, doing so disables the MeSH or CINAHL subject headings tab. In some subjects there is about a 25% overlap with other indexes in covering major journals in the field. So, in order to perform a thorough search on a topic in nursing, for example, if you only search one index, you will be missing approximately 75% of what is available on your topic.

**9. Different vendors offer different features**

Each vendor offers different advantages. EBSCO has the CINAHL Full Text and you can also search MEDLINE simultaneously to save search time. CSA will also search other related databases as well, but has no full text. PubMed accesses the complete MEDLINE database and has great features to combine searches so that you can really create specialized search queries.

**10. No matter which interface you use, less is often more**

The more concepts included in the search, the narrower your results will be. While this technique can often focus save you from fishing through hundreds of irrelevant articles, it can also limit your search. Obtaining relevant retrievals is a skill which requires practice. Begin with two concepts, and then add more concepts to narrow your search.