

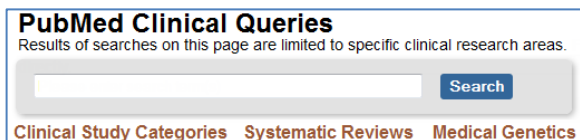
## MeSH Database

Articles are indexed using a powerful vocabulary called Medical Subject Headings (MeSH). The MeSH Database provides the option of identifying appropriate MeSH terms for searches.

The **MeSH Database** is available from the drop-down search menu, the PubMed homepage and from the Advanced page under “More Resources.” Use the MeSH database to search for a particular term or concept. If multiple items are retrieved, click on the desired term to view and select subheadings and other options. Then click on the **Add to Search Builder** button on the right side of the screen. When finished adding search terms, click **Search PubMed** to complete the search.

## Clinical Queries

**PubMed Clinical Queries** makes it easier to find articles that report applied clinical research and are accessed from the PubMed homepage, and the Advanced Search “More Resources” tab. Enter a search term and click the **Search** button. Click “See all” at the bottom of the page to return to PubMed.



**PubMed Clinical Queries**  
Results of searches on this page are limited to specific clinical research areas.

**Clinical Study Categories** displays results by clinical study category (including diagnosis, etiology, therapy, and prognosis) and scope. Use the drop-down menu to change the category or scope.

**Systematic Reviews** displays citations identified as systematic reviews, meta-analyses, reviews of clinical trials, evidence-based medicine, consensus development conferences, and guidelines.

**Medical Genetics** displays citations focused on diagnosis, management, genetic counseling, and related topics. “All” or a specific topic may be selected from the drop-down menu.

## Printing, E-mailing, Downloading Results

After selecting your citations (e.g. from checked boxes or Clipboard), select a format from **Display Settings**, and print directly from the browser.

Alternatively, select from the **Send To** menu. **File** offers format and sort options before saving the downloadable file. **E-mail** also offers options and asks for an email address. **Citation Manager** provides a file in the MEDLINE format for download to citation management software.

## My NCBI

PubMed’s **My NCBI** feature stores both citations and search strategies, provides automatic e-mail updates of stored searches, and sets preferences. Register for **My NCBI** by creating a User Name and Password. Click **Manage Filters** to select or create up to fifteen pre-formatted search filters.

## Accessing Full-Text

Many PubMed citations offer links to the full-text of articles through **PubMed Central** (a free digital archive of life sciences journal literature), through library electronic and print holdings, and/or through the publisher (the latter may require a subscription or may make an article available by pay-per-view). **Loansome Doc** allows registered users to order copies of articles from a medical library. Contact your librarian for details about full text links or call your Regional Medical Library at **800-338-7657**.

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The National Network of Libraries of Medicine® (NN/LM), an outreach program of NLM™, provides assistance and training nationwide. To find a local library, please call 800-338-7657 or go to <http://nmlm.gov/members>

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*Funded under contract awarded by the DHHS, NIH, National Library of Medicine, and developed and updated by the NN/LM staff.  
Revised: December 2012. This resource is freely available at: <http://nmlm.gov/training/resources/pmtri.pdf>*



# PubMed BASICS

**PubMed®** is the U.S. National Library of Medicine’s (NLM) premiere search system for health information. It is available *free* on the Internet at <http://pubmed.gov>.

## PubMed Content

- MEDLINE®: NLM’s database of over 22 million citations of articles published in biomedical and related journals which have been fully indexed
- In-process citations that have not yet been analyzed and indexed for MEDLINE
- Publisher supplied citations that will be analyzed to receive full indexing for MEDLINE if they are biomedical in nature

## PubMed Features

- Sophisticated search capabilities, including spell checker, advanced search builder and special tools for searching clinical topics
- Assistance in finding search terms using the MeSH (Medical Subject Heading Database), a guide to MEDLINE’s controlled vocabulary
- Ability to store citation collections and to receive email updates from saved searches using PubMed’s My NCBI
- Links to full-text articles, to information about library holdings, and to other NLM databases
- Links to other NLM search systems, such as ClinicalTrials.gov®, MedlinePlus®, and PMC

## Assistance and Training

Click on **Help** link or on **PubMed Tutorials** under *Using PubMed* on the PubMed homepage.

[Choose additional filters](#)

[Display Settings:](#)  Summary, 20 per page, Sorted by Recently Added

[Send to:](#)

Filters: [Manage Filters](#)

## PubMed Searching

To search PubMed, type a word or phrase into the query box (e.g., a subject, author and/or journal). Then click on the **Search** button or press the Enter key. Combine search terms with connector words: “AND,” “OR,” or “NOT” using upper case letters.

PubMed offers alternative searching options; for example, the auto suggest drop-down menu appears when entering words and a **Titles with your search terms** box may be available after a search.

PubMed displays a list of **Results** in Summary format after clicking on the **Search** button. To retrieve more information about the citation(s), use the **Display Settings** menu to change the format, how the results are sorted and how many citations are displayed.

**Filters** are available in the left navigation bar and may be used to limit searches. Click on a term to activate or deactivate the filter. Multiple choices may be made within a section.

Use **Choose additional filters** and **more** to reveal additional filter options including: Species (Humans or Animals), Article types, Languages, Subjects, Ages, Sex, and Journal categories. Check desired selections then click the **Show** button.

Article types  clear  
 Clinical Trial A check indicates an active filter.

**Filters activated:** published in the last 5 years [Clear all](#)

The **Filters activated** message appears above the search results list and these limits remain in effect until removed or cleared.

**Search details**, located in the right navigation column, provides information on how PubMed ran a search. PubMed looks first for the entire word or phrase as a MeSH term, then for journal titles, then authors (Automatic Term Mapping). PubMed also searches “All Fields” for the term. **Search details** shows how PubMed maps terms to MeSH headings and subheadings. Changes to the search may be made in the Details box; click **Search** to run the updated search strategy.

## Advanced

The Advanced link provides two options to refine a search: Builder and History. The Advanced search box does not retain previously run searches.

With **PubMed Advanced Search Builder**, create a search using Boolean operators. Using the **All Fields** selection will run search terms through the Automatic Term Mapping process. Apply a specific field to the term by using the drop-down menu. The **Show index list** displays the search field index and the number of citations for each term. Multiple terms selected from the Index are “OR”ed together.

**History** tracks and numbers search statements. Clicking on the numbered link provides a menu which offers the option of combining search statements into a new search with the AND, OR, or NOT connectors. The search may also be run, deleted, examined in Details, or saved in My NCBI.

The **More Resources** tab at the top of the page offers additional searching quick links to the MeSH and Journals in NCBI databases, the Single Citation Matcher, and links to the pre-constructed searches of Clinical and Topic-Specific Queries.

## Related Citations

A helpful PubMed feature is the ability to find citations that are similar to those of interest. To retrieve related articles, click on the **Related citations** link under the PMID of citations in the Summary format or select **Related citations in PubMed** in the right navigation column when examining a single citation in the Abstract format.

[Display Settings:](#)  Summary, Sorted by Recently Added [Send to:](#)

**Results: 2**

- [The keratocyte: corneal stromal cell with variable repair phenotypes.](#)  
 1. West-Mays JA, Dwivedi DJ.  
 Int J Biochem Cell Biol. 2006;38(10):1625-31. Epub 2006 Apr 3. Review.  
 PMID: 16675284 [PubMed - indexed for MEDLINE] [Free PMC Article](#)  
[Related citations](#) [Item in clipboard](#)

## Clipboard

The **Clipboard** feature stores selected citations from one or more searches for eight hours. Select citations by clicking the check box next to them; from the **Send to** menu, select Clipboard; then click the **Add to Clipboard** button. Click on the **Clipboard** link to view citations. Permanently store citations in PubMed **My NCBI Collections**, also accessed from the **Send to** menu.

## Sensors

Sensors display results in a shaded area above the regular PubMed search results.

- **Citation Sensor:** matches search terms with citation elements (e.g. blood choi 2009)
- **Gene Sensor:** identifies gene symbols and links to additional gene information (e.g. CFTR)
- **Sequence Sensor:** detects accession numbers of nucleotides or proteins (e.g. X62176)
- **Structure Sensor:** identifies items (proteins, etc.) in the Structure database (e.g. 1R10)