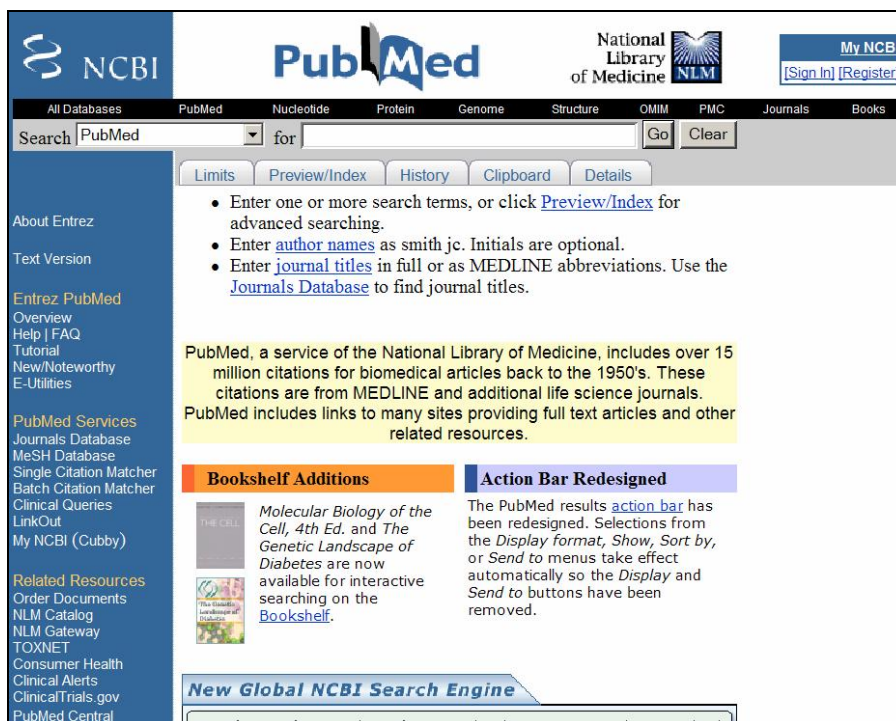


PubMed: A Quick Guide

PubMed: (connect from Lane Library's webpage, <http://lane.stanford.edu>)

- Produced by NCBI (National Center for Biotechnology Information), PubMed provides free access to MEDLINE, NLM's database of more than 15 million bibliographic citations and abstracts in the fields of medicine, nursing, dentistry, veterinary medicine, health care systems, and preclinical sciences.
- Includes access to additional selected life sciences journals not in MEDLINE.
- Links to the full-text of articles in electronic journals subscribed to by Lane Library. Icons provide info on Lane Library's print holdings as well as an easy-to-use interlibrary-loan request form.
- Links to the molecular biology databases maintained by NCBI.

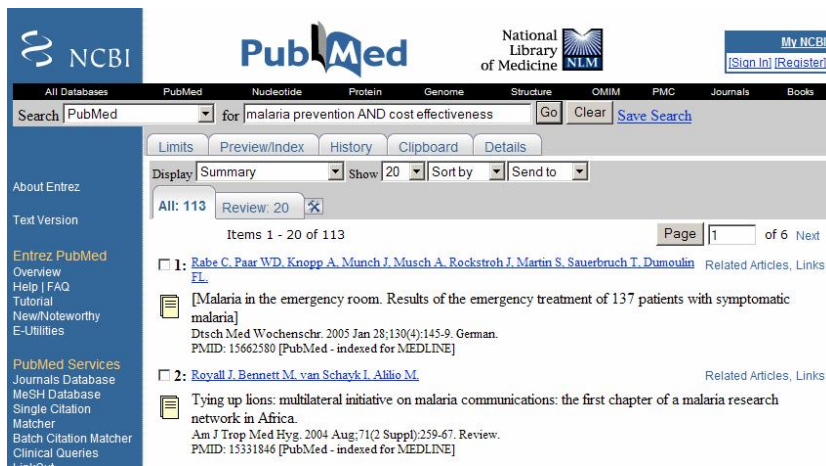


PubMed offers multiple searching options, each with its own special features.

"Search Box" -- Fast, But Not Always The Most Precise Method

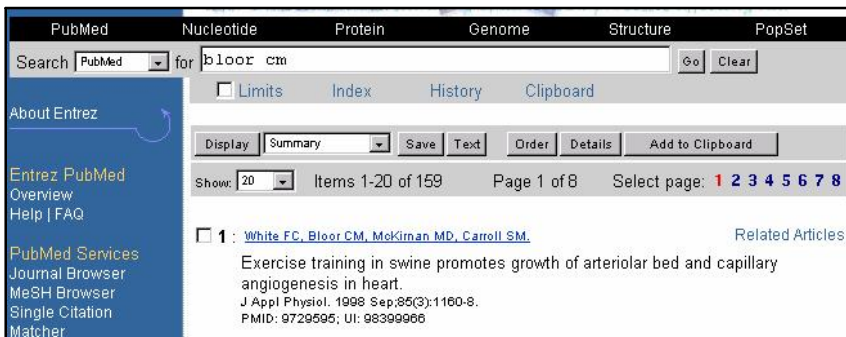
Type terms into PubMed's main search box and click the "Go" button. PubMed's "Automatic Term Mapping" feature then translates the query using a variety of translation aids: a medical subject headings (MeSH) table; a journal list; a phrase list; and an author index. If PubMed is unable to map the terms, it will run a search on ALL fields (Title, Abstract, Author, etc.)

Topic Search: Enter a word or phrase into the box indicated by the arrow below and click "Go." The following is a topic search of "malaria prevention" and "cost effectiveness."



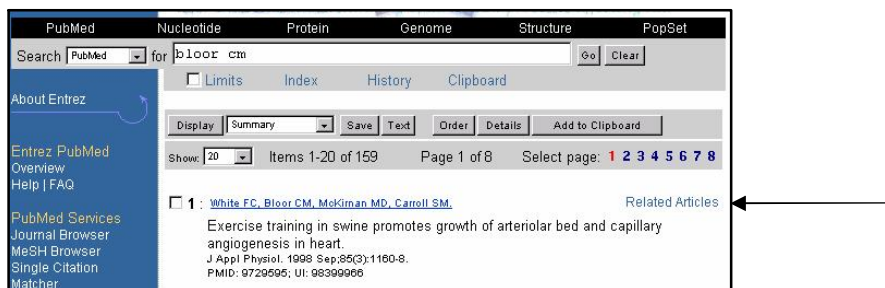
If specific Boolean operators ("AND," "OR," "NOT") are not used, PubMed will automatically use "AND." When using the basic query box, start with specific search queries, e.g., "malaria prevention AND cost effectiveness" instead of general queries, e.g., "malaria." Otherwise, you may need to sift through hundreds, perhaps thousands of largely irrelevant citations.

Author Search: Format your Author as shown below for "bloor cm" as author. Use initial(s) after a surname.



" Related Articles" -- Fast, High Relevance, Not Necessarily Comprehensive

PubMed also provides searchers with the option of expanding a search using a particularly relevant article as a starting point. After retrieving a relevant article, click on "Related Articles," (to the right of the citation author names) to activate PubMed's searching algorithm. This sophisticated algorithm combines words from the title, abstract, and subject headings as part of the retrieval process. Citations are listed in order of relevance -- most relevant first. Any "Limits" previously applied (e.g., English, review articles, etc.) are lost.



" MESH" -- High Retrieval, High Relevance

To use the MeSH Database: 1) Click "MeSH Database" (at the left margin, under "PubMed Services"); 2) Enter the search term and click "Go;" 3) Click the "Send to" button to begin building your search statement, 4) enter other terms as needed proceeding through steps 2 and 3; 5) Click "PubMed Search" to perform the search.

Example: Search *aspirin* and *myocardial infarction*.

Start by typing, *myocardial infarction*, click "Go."

Myocardial Infarction is displayed as a selectable MeSH term. Click the "Send to" pull down menu and pick "Send to Search box with AND."

Notice that *myocardial infarction* has been placed into a small search window. You can repeat these steps with other topics, e.g., *aspirin*. Type, *aspirin* and click "Go."

Before adding *aspirin* to your search, click on the term "*aspirin*" to get information on its subheadings and its place within the MeSH hierarchy.

This window provides you with a list of "Subheadings," which you can use to narrow your search to specific aspects of a MeSH term (e.g., "aspirin" and "therapeutic use"). Further down the screen (not visible in this screen shot) is a hierarchical listing of broader and narrower MeSH terms, including "pharmacological action." Once you've picked your MeSH/subheading combination, click on the "Send to" pull down menu.

The screenshot shows the MeSH browser interface. On the left is a sidebar with links like 'Single Citation Matcher', 'Batch Citation Matcher', 'Clinical Queries', 'LinkOut', 'Cubby', 'Related Resources', 'Order Documents', 'NLM Gateway', 'TOXNET', 'Consumer Health', 'Clinical Alerts', 'ClinicalTrials.gov', and 'PubMed Central'. The main content area displays the MeSH term '1: Aspirin' with its definition: 'The prototypical analgesic used in the treatment of mild to moderate pain. It has anti-inflammatory and antipyretic properties and acts as an inhibitor of cyclooxygenase which results in the inhibition of the biosynthesis of prostaglandins. Aspirin also inhibits platelet aggregation and is used in the prevention of arterial and venous thrombosis. (From Martindale, The Extra Pharmacopoeia, 30th ed, p5)'. Below the definition is the 'Year introduced: 1965'. A section titled 'Subheadings:' lists various categories with checkboxes: administration and dosage, adverse effects, analogs and derivatives, analysis, antagonists and inhibitors, blood, cerebrospinal fluid, chemical synthesis, chemistry, classification, contraindications, diagnostic use, economics, history, immunology, isolation and purification, metabolism, pharmacokinetics, pharmacology, physiology, poisoning, radiation effects, standards, supply and distribution, therapeutic use (checked), toxicity, and urine. At the bottom, there are two options: 'Restrict Search to Major Topic headings only' and 'Do Not Explode this term (i.e., do not include MeSH terms found below this term in the MeSH tree)'.

You can now run the search by clicking on the "Search PubMed" button.

The screenshot shows the PubMed search interface. At the top, there are tabs for different database types: Entrez, PubMed, Nucleotide, Protein, Genome, Structure, OMIM, PMC, Journals, and Books. The search bar contains the text 'Search MeSH for' followed by a dropdown menu showing 'Myocardial Infarction[MeSH] AND Aspirin/therapeutic use[MeSH]'. Below the search bar are buttons for 'Limits', 'Preview/Index', 'History', 'Clipboard', and 'Details'. At the bottom of the search bar area are 'Search PubMed' and 'Clear' buttons.

"Limits" -- Restricting Your Search to More Relevant Citations

"Limits" allows you to restrict your search with a range of search parameters, e.g., review article, publication date, age group, human or animal study, etc.

To access the "Limits" screen, click the Limits tab.

The screenshot shows the PubMed 'Limits' screen. At the top, there are logos for NCBI, PubMed, and the National Library of Medicine. Below the logos are tabs for different database types: All Databases, PubMed, Nucleotide, Protein, Genome, Structure, OMIM, PMC, Journals, and Books. The search bar contains the text 'Search PubMed for myocardial infarction [mesh] AND aspirin/therape'. Below the search bar are buttons for 'Limits', 'Preview/Index', 'History', 'Clipboard', and 'Details'. The 'Limits' tab is selected. Below the search bar, there are options for 'Display' (Summary), 'Show' (20), 'Sort by', and 'Send to'. The search results show 'All: 1856' and 'Review: 414'. Below the search results, there is a list of items, with the first item being '1: Levesque LE, Brophy JM, Zhang B. The risk for myocardial infarction with cyclooxygenase-2 inhibitors: a population study of elderly adults. Ann Intern Med. 2005 Apr 5;142(7):481-9. Summary for patients in: Ann Intern Med. 2005 Apr 5;142(7):145. PMID: 15809459 [PubMed - indexed for MEDLINE]'. At the bottom, there are buttons for 'Page 1 of 93' and 'Next'.

Choose from the various options: e.g., Clicking on "Go" performs the search. The "Limits" you set will remain active until new limits are set, or the Limits check-box is unchecked.

Humans or Animals <small>CLEAR</small> <input type="checkbox"/> Humans <input type="checkbox"/> Animals	Gender <small>CLEAR</small> <input type="checkbox"/> Male <input type="checkbox"/> Female
Languages <small>CLEAR</small> <input checked="" type="checkbox"/> English <input type="checkbox"/> French <input type="checkbox"/> German <input type="checkbox"/> Italian <input type="checkbox"/> Japanese <input type="checkbox"/> Russian <input type="checkbox"/> Spanish More Languages <input type="checkbox"/> Afrikaans <input type="checkbox"/> Albanian	Subsets <small>CLEAR</small> Journal Groups <input type="checkbox"/> Core clinical journals <input type="checkbox"/> Dental journals <input type="checkbox"/> Nursing journals Topics <input type="checkbox"/> AIDS <input type="checkbox"/> Bioethics <input type="checkbox"/> Cancer <input type="checkbox"/> Complementary Medicine <input type="checkbox"/> History of Medicine
Type of Article <small>CLEAR</small> <input type="checkbox"/> Meta-Analysis <input type="checkbox"/> Practice Guideline <input type="checkbox"/> Randomized Controlled Trial <input checked="" type="checkbox"/> Review More Publication Types <input type="checkbox"/> Addresses <input type="checkbox"/> Bibliography <input type="checkbox"/> Biography	Ages <small>CLEAR</small> <input type="checkbox"/> All Infant: birth-23 months <input type="checkbox"/> All Child: 0-18 years <input type="checkbox"/> All Adult: 19+ years <input type="checkbox"/> Newborn: birth-1 month <input type="checkbox"/> Infant: 1-23 months <input type="checkbox"/> Preschool Child: 2-5 years <input type="checkbox"/> Child: 6-12 years <input type="checkbox"/> Adolescent: 13-18 years

Use the "Abstract" display format to view your citations with abstracts – note the *Stanford* link.

All Databases
PubMed
Nucleotide
Protein
Genome

Search PubMed for Go


Limits
Preview/Index
History
Clipboard
Details

Display AbstractPlus Show 20 Sort by Send to

All: 1 Review: 0

☐ 1: Natl Med J India, 2006 Mar-Apr;19(2):73-4.
Flowcytometric evidence of platelet activation in patients on aspirin following myocardial infarction.
Ghosh K, Khare A, Shetty S, Nair S, Kulkarni B, Mohanty D.
Institute of Immunohaematology (ICMR), 13th floor, New Building, K.E.M. Hospital, Parel, Mumbai 400012, Maharashtra.
kanjakshaghosh@hotmail.com

BACKGROUND: Following a myocardial infarction, patients are usually started on long term antiplatelet therapy with aspirin in a dose of 80-150 mg/day. However, there are no quick and easy methods to assess the efficacy of the antiplatelet activity of aspirin. METHODS: We studied 60 consecutive patients (men, < 40 years of age) 8-10 weeks after they had had acute myocardial infarction. These patients were receiving 100 mg aspirin daily orally with or without b-blockers. We measured P-selectin expression and fibrinogen binding by flowcytometry at least 3 times over a period of 2 years in all the patients. We also studied 100 age- and sex-matched controls. RESULTS: Of the 60 patients, 30 (50%) showed both increased P-selectin and fibrinogen binding by platelets, suggesting platelet activation. Fourteen other patients had increased fibrinogen binding but normal P-selectin expression. Sixteen patients and all the controls had normal results of both tests. CONCLUSION: Our data show evidence of platelet activation in at least 50% of patients receiving 100 mg of aspirin daily. Flowcytometry for P-selectin expression and fibrinogen binding to platelets can be used to monitor antiplatelet therapy with aspirin following acute myocardial infarction.

PMID: 16756193 [PubMed - indexed for MEDLINE]


"Clinical Queries" -- Fast, Not Comprehensive

The "Clinical Queries" screen is most effective when used to look for articles focusing on general medicine and the "therapy," "diagnosis," "etiology," or "prognosis" of a particular condition, or if you're trying to limit your search to systematic reviews. A new Medical Genetics filter is also now available. The "Clinical Queries" screen can be accessed from the left side of the PubMed searching interface. An in-depth description of how the "filters" work is available from the "Clinical Queries" screen.

Links to full-text and beyond...

Use the Stanford icon link to Lane Library's ejournal and print holdings, document delivery through DocXpress, and a ranking of the journal by its impact factor.

Single Citation Matcher

PubMed offers a convenient screen for locating single citations called, not surprisingly, "Single Citation Matcher." Enter whatever information you have for the citation, then click on the "Search" button.

For example, to locate an article by *Carlyle* with the words *myocardial creatine kinase* in the title, and published in **1999**, enter the data you have into the citation matcher search screen...

NCBI Citation Matcher for Single Articles

PubMed Nucleotide Protein Genome Structure PopSet Taxonomy OMIM Books

Enter information about the article you wish to find.

Journal:

Date:

Volume: Issue: First page:

Author's last name and initials (e.g., Smith BJ)

Title words:

Here's the citation!

NCBI PubMed National Library of Medicine NLM

PubMed Nucleotide Protein Genome Structure PopSet Taxonomy OMIM Books

Search for

Limits Preview/Index History Clipboard Details

Display: Sort: Save Text

☐ 1: [Murakami Y, Zhang J, Eigelshoven MH, Chen W, Carlyle WC, Zhang Y, Gong G, Bache RJ.](#) [Related Articles](#)
Myocardial creatine kinase kinetics in hearts with postinfarction left ventricular remodeling.
Am J Physiol. 1999 Mar;276(3 Pt 2):H892-900.
PMID: 10070072 [PubMed - indexed for MEDLINE]

Saving Searches with My NCBI

One of the more attractive features of PubMed is its stored search utility, called "My NCBI" (formerly known as Cubby) Searchers can run searches, download citations, and then store the search strategy. New citations matching the stored search criteria can be automatically emailed to the searcher.

First, click the My NCBI link on the left vertical blue margin.

NCBI My NCBI [Sign In \(Registered\)](#)

All Databases PubMed Nucleotide Protein Genome Structure OMIM PMC Journals Books

Search for

Limits Preview/Index History Clipboard Details

☐ 1: [Summaries for patients. Risk for heart attacks with different NSAIDs.](#)
Ann Intern Med. 2005 Apr 5;142(7):145. No abstract available.
PMID: 15809454 [PubMed - indexed for MEDLINE]

☐ 3: [Lee RT.](#) [Related Articles, Links](#)
Ask the doctor. I am a 60-year-old man with several risk factors for heart disease. I take Aleve twice a day. Do I still need to take aspirin, or is the Aleve enough? I often take ibuprofen for my headaches or aching back. Now my doctor wants me to start taking aspirin, and she suggested that I ease up on the ibuprofen. Why?
Harv Heart Lett. 2005 Feb;15(6):8. No abstract available.

If you haven't registered with My NCBI before, click on the "register for an account" link and register (the service is free).

NCBI My NCBI [Sign In \(Registered\)](#)

All Databases PubMed Nucleotide Protein Genome Structure OMIM PMC Journals Books

Search for

Limits Preview/Index History Clipboard Details

My NCBI: Sign In

Sign in here or [register for an account](#).

User Name

Password

☐ Keep me signed in unless I sign out
Leave unchecked on public computers

[I forgot my password](#)

Run the search you want to save, then click on the "Save Search" link, and login to My NCBI if you haven't already.

The screenshot shows the PubMed search results page. At the top, there are logos for NCBI, PubMed, and the National Library of Medicine (NLM). A search bar contains the query "myocardial infarction [mesh] AND aspirin/therapeutic use [mesh]". Below the search bar, there are tabs for "Limits", "Preview/Index", "History", "Clipboard", and "Details". The "Preview/Index" tab is selected, showing a summary of the search results. The results are displayed in a table with columns for "Display", "Summary", "Show", "Sort by", and "Send to". The first result is titled "The risk for myocardial infarction with cyclooxygenase-2 inhibitors: a population study of elderly adults." and is from the journal "Ann Intern Med.".

Indicate whether or not you want to receive email updates. Otherwise, you can always login at your convenience and request an update of citations added since you last logged in to My NCBI.

The screenshot shows a "Save Search" dialog box in a Microsoft Internet Explorer window. The dialog box has a title bar that reads "http://www.ncbi.nlm.nih.gov - My NCBI - Microsoft Internet Explorer". The main content area is titled "Save Search" and contains the text "Your search in PubMed" followed by the search query "myocardial infarction [mesh] AND aspirin/therapeutic use [mesh]". Below this, there is a text input field labeled "Enter a name for your search:" with the value "myocardial infarction aspirin/therapeutic use". At the bottom, there is a question "Would you like to receive e-mail updates of new search results?" with two radio buttons: "No" (selected) and "Yes". There are "OK" and "Cancel" buttons at the bottom of the dialog box.

Clicking on the My NCBI link shows you your saved searches.

The screenshot shows the "My NCBI" page. At the top, there are logos for NCBI and My NCBI. A "Welcome" message is displayed, along with a "Sign Out" link. Below the welcome message, there is a table titled "My Saved Searches". The table has three columns: "Search PubMed", "Last Updated", and "Details". The first row shows a search for "myocardial infarction aspirin/therapeutic use" with the last update date of "today" and a "No Schedule" link. Below the table, there are two buttons: "What's New for Selected" and "Delete Selected".

Displaying, Printing and Downloading from PubMed

Emailing:

1. To email your citations, click the "Send to" pull down menu and choose "E-mail."
2. On the subsequent screen, indicate the appropriate format for your citations (e.g., Abstracts), enter your email address, and click "Mail."

Displaying:

1. Multiple display options are available for PubMed citations from the Display pull-down menu
2. For example, "Abstract" displays citations with abstracts; "MEDLINE" displays citations with "tags" (citations saved in the MEDLINE display format can be imported into a bibliographic management program such as EndNote)
3. Select specific citations by clicking in the check-box to the left of the citation number. To display ALL citation in a particular display format, simply leave the boxes blank and click "Display."

Printing:

1. Change the "Show" pull-down menu to a number greater than the citations in your search set, e.g., 200 for a set of 180 citations (this allows ALL your citations to be displayed on one page, otherwise you'd have to print page by page)
2. Click "Display" and your citations will display on one (possibly very long) page.
3. Use the Print button in your browser to print the citations. To print the citations without extraneous menu or header and banner graphics, click the "Send to" pull down menu. Choose "Text." Use your browser's print button to print the citations.

Downloading:

1. Use "Send to" "Clipboard" to store your citations temporarily (duplicates get deleted)
2. Once you've finished searching, click on "Clipboard" and choose a display format; e.g., "Citation"
3. Click "Send to" and choose "File" to save your citations as a file.

CS Rev 7/2006 (orig 3/2001)