



# How to search PubMed

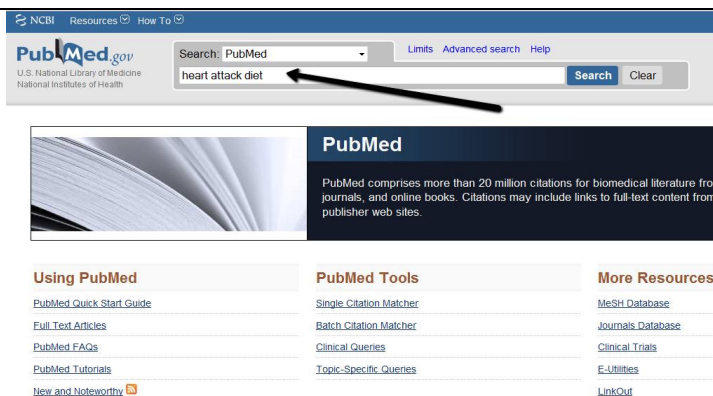
## What is PubMed?

- Search interface from the U.S. National Library of Medicine (NLM).
- Covers the field of medicine, nursing, dentistry, pharmacy and life sciences.
- Contains more than 20 million citations from MEDLINE, life sciences journals and e-books.
- Includes items from 1947 – present.

## To access PubMed and to get UBC full text

1. Go to the UBC library Home Page: <http://www.library.ubc.ca/>.
2. Select **E-Resources**, then **Indexes & Databases**
3. Enter **PubMed** in the **Search** box, **Search**, to reach <http://resources.library.ubc.ca/321>
4. Connect to **PubMed (1947-present)**. If you are off-campus, you will be prompted to connect via **EZProxy**.

## Search



1. To perform a search, enter search terms in the PubMed Search Box and select **Search**. For example, to find information on the relation between heart attack and diet; enter **heart attack diet** in the Search Box and select **Search** (Fig. 1).
2. Multiple terms are automatically combined with AND
3. In a PubMed search the search terms are automatically mapped to MeSH (Medical Subject Headings). MeSH are standardized subject headings used to describe the contents of an article.

Figure 1: PubMed home page

**Note:** If you search for an exact phrase e.g. “heart attack” using quotation marks, or use truncation (\*) to search for variations in spelling, the mapping to MESH terms will be switched off.

## Search Details

### Search Details

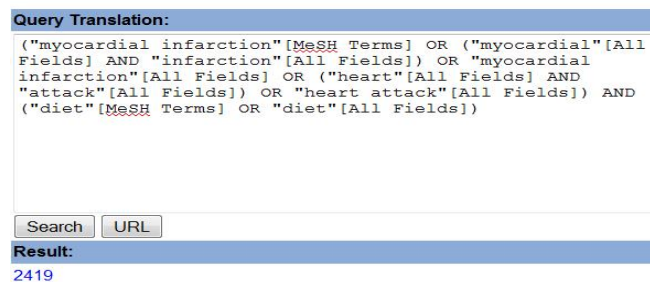


Figure 2: Search Details

1. To see how PubMed interpreted a search, scroll down to the **Search Details** box on the right of the results screen. Click **See more** and Search Details are displayed as shown in Fig. 2.
2. In this example **heart attack** was mapped to the MeSH term **myocardial infarction** and terms were searched as both keywords and as MESH terms
3. The search can be edited here and re-run by selecting **Search**.



## Limiting a Search

Figure 3: Applying Search Limits

1. Click **Limits** above the PubMed Search box
2. Select limits by checking the boxes beside limit options such as type of article, language, age etc. (Fig.3), then **Search**.

**Note:** A yellow triangle will be displayed at the top of the results screen when limits have been set. **Change** or **Remove** limits here too. A green check box is displayed when limits have been removed.

## Displaying Search Results

Figure 4: Results display

1. PubMed search results are automatically displayed in **Summary** format (title, author, journal information and a link to related citations), 20 items per page and sorted by most recently added (Fig.4).
2. To change Display settings click on the **Display Settings** link above the Results list. Choose settings, then **Apply**.
3. Click on a title to display the Abstract.

**Note:** When the Abstract is displayed, links to full-text will appear on the top right of the screen. Click **UBC eLink** to find UBC holdings of the article. Find similar articles in the **Related Citations** box on the right of the screen.

## Advanced Search - Building, combining and saving searches

Figure 5: Building, combining, saving searches

1. On the PubMed Home Page select **Advanced Search** above the Search Box.
2. In the **Search Builder** section of the screen, select a field to search from the **All Fields** drop-down box (e.g. Author, Journal, MeSH).
3. Enter a search term and run the search, or select the **Show Index** link to choose from a list.
4. To build the search, Select **AND, OR, NOT** from the drop-down box, then **Add to Search Box**.
5. Select **Preview** to see the number of results returned in the **Search History** part of the screen, or Click **Search** to view the results.

6. To combine searches use **Search History**. Click on the search number, choose whether to combine terms with AND, OR, NOT, for example **#4 AND #5**, then **Search**.

**Note:** To Save a search, click on the search number, choose **Save in My NCBI**. You will be prompted to give your search a name and to choose whether to receive updates of the search.

## Advanced Search - using MeSH terms

Records in PubMed are tagged with Medical Subject Headings (MeSH). Using the MeSH database to find the best MeSH terms will increase the relevance of your search results.

The screenshot shows the MeSH database interface. The search box contains 'for' and the search term 'Vitamin C' is entered. The search results show '1: Ascorbic Acid' with a definition and a list of subheadings. The 'Send to' dropdown menu is set to '6' (Search box with AND). The 'Subheadings' section is expanded, showing a list of subheadings with checkboxes. The 'Send to' dropdown menu is set to '6' (Search box with AND). The 'Subheadings' section is expanded, showing a list of subheadings with checkboxes.

Figure 6: Searching using MeSH

**Note:** The MeSH database also provides a definition of the term, shows where the term is in the MeSH tree structure, and gives examples of keywords to use to expand the search.

1. To access the MeSH database, select **MeSH** in the drop-down menu above the Search box on the PubMed home page.
2. Enter a term in the search box, then **Search**. As shown in Fig. 6, **Vitamin C** was entered as the search term and **Ascorbic acid** was displayed as the corresponding MeSH term. Click on the term to display the full record.
3. Choose whether to attach subheadings, to search a particular aspect of the topic.
4. Choose whether to restrict the search to major Subject Headings.
5. PubMed will automatically explode a term to include all narrower terms, so check the box if you do not want this to occur.
6. To search using the MeSH term, first check the box beside **Ascorbic Acid**. From the **Send to** drop-down box choose **Search box with AND**, then **Search PubMed**.

## Saving Search Results

### Temporary storage - Save to clipboard

The screenshot shows the PubMed search results page for 'heart attack diet'. The search results are displayed in a list. The 'Send to' dropdown menu is open, showing options: File, Clipboard, Collections, E-mail, and Order. The 'Clipboard' option is selected. The 'Add to Clipboard' button is visible. The search results list includes 'Multivitamin use and the risk of myocardial infarction: a population-based cohort of Swedish women' and 'Cardiovascular risk-benefit profile of sibutramine'.

Figure 7: Saving to clipboard

**Note:** Items saved to the Clipboard are lost after 8 hr. of inactivity.

1. On the PubMed results page mark the PubMed search results that you want to save to the Clipboard.
2. From the **Send to** drop-down menu at the top right of the PubMed Results page, select **Clipboard** as the destination, then **Add to Clipboard**.
3. A green checkmark box at the top of the screen shows that items have been added to the Clipboard.
4. To see details of items that have been saved to the Clipboard, click on the link by the Clipboard icon at the top right of the screen.

### Permanent storage

1. To save Clipboard items permanently, use the **Send to** drop-down menu and select **E-mail**, **File** (save to your computer) or **Collections** (to add items to an NCBI collection). OR
2. Select **Save Search** above the Search box on the PubMed Home Page to save to your My NCBI account.

## PubMed Tools

Other useful features of PubMed can be accessed from the **PubMed Tools** list on the PubMed home page



Figure 8: PubMed Tools

- Use **Single Citation Matcher** to locate PubMed citations even though you have limited information on title, author etc.
- **Batch Citation Matcher** for multiple citations
- **Clinical queries** and **Topic-specific queries** help clinicians and researchers improve the specificity of their searches.

### PubMed Clinical Queries



Figure 9: PubMed Clinical Queries

In **Clinical Queries** when a search is run, a filter is applied to the Search results to focus on a particular aspect. **PubMed Clinical Queries** contains 3 parts.

1. **Clinical study category.** Use the drop-down box to select the Category (Etiology, Diagnosis, Therapy, Prognosis or Clinical Prediction Guidelines) and the Scope (broad or narrow).
2. **Systematic reviews** on the search topic are listed in the central column.
3. **Medical genetics** Use the drop-down box to select the topic.

**Topic-specific queries** can also be accessed from PubMed Tools list on the PubMed home page. They are used by clinicians to locate a pre-filtered set of results on a clinical topic, such as AIDS, or cancer.

**Journals database** may be accessed from the drop-down menu above the Search box and is also listed under **More Resources** on the PubMed home page. Search by journal title, journal abbreviation, ISSN, or browse by subject terms to see which journals cover a specific topic area.

## To learn more about searching with PubMed

- Ask a librarian at the Library Reference Desk
- Sign up for a UBC Library workshop on searching PubMed. Find the schedule for workshops at <http://elred.library.ubc.ca/libs/calendar/>
- Look at the UBC Library *Saving and updating searches in PubMed* leaflet
- On the PubMed home page follow links to FAQs and tutorials listed under **Using PubMed**