

A basic guide to searching PubMed

What is PubMed?

PubMed is a freely available version of the Medline database produced by the US National Library of Medicine. It covers medicine and the biomedical sciences, nursing, dentistry, veterinary medicine and health care.

PubMed contains over 16 million references from around 5,200 journals dating back to 1948. It provides citations and abstracts but also includes links to many full text articles.

Accessing PubMed

<http://www.pubmed.gov>.

No username or password is required.

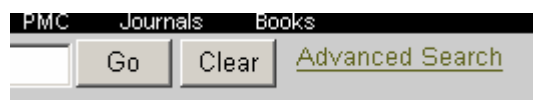
Searching PubMed

Type your keywords into the main search box. Refine your search by using Boolean operators:

- **AND** - retrieves articles that contain *all* the words you specify
e.g. *coffee AND health*
- **OR** – retrieves articles that contain *any* of the words you specify
e.g. *coffee OR caffeine*
- **NOT** – excludes the word(s) you specify
e.g. *coffee NOT tea*
- These ‘operators’ can be combined (always use in upper case)
e.g. *(coffee OR caffeine) AND (health OR benefits)*
- **Brackets** are used to group together similar terms (see previous example)
- **Phrase-searching** – PubMed recognises most phrases if you type the words next to each other, e.g. *avian flu*
- ***** – use after the stem of a word to retrieve all words that begin with that stem
e.g. *ethic** (retrieves *ethic, ethics, ethical* etc.)

Refining your search

Further refine your search by adding Limits on the **Advanced Search** page. The link to the Advanced Search page is found to the right of the general search box:



Common **Limits** include: full text, language, date range, human or animal subjects.

The **Limits** are also found as tabs on the front page.

Viewing your results

- Results are displayed in ‘Summary’ format. Change format by clicking on **Display** drop-down menu
- The most recent references are displayed first. Change this using **Sort by** drop-down menu (author, journal title, pub date)
- Select review articles only using **Review** tab
- Is full text available? A link will be attached to the reference if *free* full text is available.
- Titles in square brackets indicate that language of article is not English.

To access full text, click on publisher icon (if there is one) or click on **Links**, then **LinkOut**. N.B. Some links will be to journals to which we don’t subscribe, though the publisher may offer priced access.

Searching for author

1. In **Advanced Search** Author field enter the author’s last name plus initial(s) if known:
e.g. *Johns PA*
2. Click **Search** to retrieve results.
 - If you are unsure of all of the author’s initials type the first initial only and all variants will be retrieved:
e.g. *Johns P, Johns PK, Johns PWS* etc.
 - Author names can also be added straight into the search box. If the surname is ambiguous use [au] after the name: e.g. *Woods [au]*
 - Author names can be combined with other search terms:
e.g. *Knight PA AND malaria*

Searching for journal titles

1. In **Advanced Search** enter the journal title into the Journals field search box (the search will also recognise standardised abbreviations) e.g. *BMJ*.
2. Click **Search** to retrieve results.
 - Journal titles can be combined with other search terms
e.g. *BMJ AND genetic testing*
 - Journal names can also be added straight into the search box. Suffix with the field tag [journal]: e.g. Nature [journal]

Combining searches

The History tab displays all previously run searches. It can be used to view the results of previous searches or to combine searches together:

1. Click on **History** tab. Each search is given a different number (#).
2. Enter the search numbers in the search box and separate with AND, OR, NOT
e.g. #3 AND #7
e.g. #11 AND (#9 OR #4)
3. Click **Go** to retrieve results

Printing, saving and emailing results

Selected references can be printed, saved or emailed:

1. **Tick** all references required
2. Use the **Send to** drop-down menu to print, save (use File option) or email results

Clipboard

The clipboard allows you to select results from different searches and collect them all in one place. They can then be printed, saved or downloaded:

1. **Tick** all references required
2. Select **Clipboard** from the **Send to** drop-down menu.
3. You can then conduct another search and select more results to go to the clipboard
4. To view the articles in the clipboard click on the **Clipboard tab**

Searching using MeSH headings

MeSH (Medical Subject Headings) is a controlled vocabulary that indexers use to describe the subject of each article. The vocabulary is arranged hierarchically from very broad to very narrow terms.

They help you to carry out a more precise search and reduce the number of irrelevant results. To find a MeSH term:

1. Select **MeSH** from dropdown menu.
2. Enter your search term and press **Go**.
3. PubMed maps your term to its preferred heading.
4. Click on term to reveal any subheadings and the hierarchical structure.
5. **Tick** the box next to the term. In addition, you can select subject headings, view hierarchical tree, turn off explode feature or restrict to major topics.
6. From the **Send to** drop-down menu select **Search box with AND** or **Search box with OR** as appropriate. Your term appears in the search box.
7. Click **Search PubMed** to run the search.

Other features

My NCBI

This feature allows you to save your search strategies to receive updates or re-run at a later date:

1. Click on My NCBI to register
 2. Run search
 3. Click **Save search** on right of search box
 4. Give your search a descriptive name.
 5. Indicate whether or not you want to receive automatic updates. If you setting as No, the search is saved and can be re-run by signing into My NCBI
- To save Clipboard references, click on the **Clipboard tab** and select **My NCBI collections** from the **Send to** drop-down menu

Single citation matcher

This is a useful feature if you have a partial reference (e.g. the author and the year) and want to track down the whole reference:

1. Click on **Single citation matcher** from the sidepanel.
2. Enter the information you have in the blank boxes.
3. Click **Go**

An excellent tutorial can be found on the National Library of Medicine's [website](#).

[Wellcome Library](#)