THE POWER OF PUBMED
BROWN BAG WORKSHOPS 2015
USU LEARNING RESOURCE CENTER
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Who can I contact for Help?
The LRC can answer most questions at lrc.ref@usuhs.edu or 301-295-3398.
What is PubMed?
PubMed, a service of the National Library of Medicine, includes over 24 million citations for biomedical articles back to 1946. Citations are from the MEDLINE database and additional life science journals. MEDLINE citations come from journals that have been vetted for quality and these records are created and maintained by expert indexers.

Accessing PubMed
PubMed is free and accessible from pubmed.gov. PubMed may include links to sites for full-text articles – free links are indicated – and other related resources. However, to gain access to the full-text articles available from the LRC’s licensed content, use PubMed@USU, see below.
Note: Users may also search MEDLINE through services provided by companies such as EBSCO and Ovid.

Searching PubMed
Enter search terms into the search box for quick results and click **Search**.
- Boolean connectors (AND, OR, NOT), must be in upper case.
- PubMed automatically searches from 1946 to the present.
Results Page

PubMed interprets your search terms to identify key concepts, and if possible, maps to a MeSH term, and then ANDs them together. To see how your terms are mapped, see Search Details.

Display Settings

Display Settings menu allows you to select the citation format, number of items per page, and sort order. The default is Summary format, 20 items per page and listed in order of most recent addition.

- **Summary** format: Author(s), article title, citation information (journal title, date, etc.) and, when appropriate, a Free PMC Article tag. PubMed Central (PMC) is a repository for full-text, open access journals maintained by the National Library of Medicine.

Notes on Display Settings:

- **Abstract** displays additional information, including USU’s print and electronic holdings icons. The **USU Electronic** icon will link you to the full-text.
- Formats marked with **text** are best suited for printing or copying.
- The **Relevance** sort is based on an algorithm that analyzes each PubMed citation that includes the search terms.

Send to Options

Click Send to: to print, save, or email. Note: Use the checkbox to select specific citations on the results screen.

- **File** (Save to a text file)
- **E-mail** up to 200 citations to a single e-mail address.
- Save citations to export to a Citation Manager program (e.g. EndNote, Zotero, etc.).
- **Collections** and **My Bibliography** are features of My NCBI.
Clipboard

Use the Clipboard to collect citations as you conduct your searches. The Clipboard holds up to 500 citations and remains active for 8 hours. The Display Settings and Send to options are available from the Clipboard – store items to order full-text articles, email, or export to a bibliographic software (e.g., EndNote).

- Use the check boxes to mark citations to send to the Clipboard. If you don’t click on a check box, it will send all your search results. Next, use Send to and select Clipboard.
- Items in your Clipboard will be identified with an orange label, Item in Clipboard.
- To view the items in your Clipboard, click Clipboard: # items.
- To remove an item(s) from the clipboard, click Remove from clipboard for individual items. To remove all, click Remove all items.

Order (Full-text)

The Order option under Send to allows you to submit an electronic request for the full-text for articles that are not owned by USUHS. The requests are made using Loansome Doc (an interlibrary loan service) and can be delivered via email.

Note: Before placing an order, search the LRC’s electronic collection in Power Search via the Search Our Collections box to verify that the item is not owned by USU.

- Use the check boxes to select citations that USUHS does not own and you wish to order full-text copies and use Send To: Order sign in to Loansome Doc and place your order(s).

Loansome Doc Registration

To register, click Sign Up! And complete the registration process. Important notes for successful registration:

- When designating your library, choose Maryland as your state.
- Uncheck the box that searches only libraries serving the general public.
- The entry for USUHS will appear on the second page of libraries.
- Enter $.00 for the amount you will pay for articles – free to USU faculty, students and staff.

Related citations

The Related citations link launches a new search that retrieves similar articles based on the terms in the title, abstract and assigned MeSH terms. Results are listed by relevance, not date. As the database is updated, the results are also updated.

Note(s):

- Use the Related citations to find other relevant articles without having to enter another search strategy.
- To change for format display or sort order, e.g., publication date, select Display Settings.
- You can also apply Filters, e.g., date range, publication type, age group, etc. to refine the results.
Search Details

The **Search details** box, lower right side of results page, shows how PubMed translates your search terms. Use **See more** view all translations.

- Notice the combination of both text words (All Fields) and MeSH terms. Text words are useful for finding citations not yet indexed in MEDLINE or represent a term that does not have a MeSH heading. These terms will be searched in all fields.
- Within the details box, the **URL** button executes the search and generates a string in the web-browser’s address bar. You can cut and paste this elsewhere to generate the same results.
Filters

Use PubMed’s **Filters** to refine results by a date range, publication type, language, age group, gender, etc.

- The most commonly selected filters automatically display. Click to activate a filter.
- Use **Show additional filters** to view all options. To activate these filters, select the ones you would want to use and click **Show**. Next, click on the filter to activate it.
- The selected filter(s) will appear in bold with a checkmark (✔) next to it. In addition, a listing of active filters will display above your results, e.g., **Filters activated: Adult: 19-44 years Clear All**.

![Filters Activated](image)

**Note:** Be sure to reselect or turn off (Clear All) filters when conducting another search. If your results from a new search seem too few, it is probably because a filter is turned on.
Advanced Search

The **Advanced** search feature (directly under the search box), allows you to:

- Construct a lengthy search strategy in a larger search box area.
- View your current session’s search History and combine search sets, e.g., \#1 AND \#3.
- Save (download) your current session’s History.
- Limit terms to specific fields and construct a search using a “search builder tool.”

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**Search Builder**

The search **Builder** allows you to search within certain Fields or the entire record (All Fields) for a given term. To construct a search:

- Click the drop-down menu to select the field you would like to search. The default is **All Fields**.
- Enter your search term or terms. You can enter multiple terms and connect with AND, OR, NOT, e.g., `obesity OR overweight`.
- Continue to build your search strategy by entering additional terms on the next line and selecting AND, OR, NOT.
- Once you have completed building your search strategy, click **Search** to have PubMed run your search and display results. Or, click **Add to history** to display items found under History.

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**Note(s):**

1) As you enter terms in the **Builder**, the search strategy is displayed in the search box on top. Once you have completed building your search strategy, you can click **Edit** to make changes.

2) Alternatively, you can click **Edit** to enter and build your search strategy without using the Builder.

3) The **Show index list** will display a list of terms with the number of occurrences indicated in parentheses. You can select multiple terms using the terms using the command key (MAC) or Ctrl key (PC). Selected items OR’d together.
History

History keeps track of the searches (100 maximum) you have performed during the last 8 hours on the one computer. You can use the searches to:

- Combine search sets using the connectors AND, OR, and NOT using the search number, e.g. #2 AND #1. Alternatively, Add to builder does the same.
- Click on the search set, e.g., #1, to add to builder, delete from history, or save in MY NCBI.
- Click on the Items found to view search results of a specific search.
- Click Download history to save your work from a PubMed session into a CSV file. You can view this file in Excel or a text editor.

PubMed Tools & Resources

From PubMed’s main page, PubMed Tools and More Resources provide links to additional features and tools. This handout covers the MeSH Database, Clinical Queries and Topic-Specific Queries.

Clinical Queries

PubMed’s Clinical Queries search feature makes it easier to find studies that report applied clinical research. Click on the link to view the search box and category options.

- Use Clinical Study Categories to select diagnosis, etiology, therapy (default), prognosis, and clinical prediction guidelines.
- Use Scope to narrow retrieval. Note: Narrow reduces results and may exclude relevant studies.
- Use Systematic Reviews to view articles identified as systematic reviews, meta-analyses, review of clinical trials, EBM, and/or guidelines.

Note: If you want to view the search strategies for each filter (diagnosis, therapy, etc.) scroll to the bottom of the results page. Click on filter information for either Categories or Systematic Reviews.
**Topic Specific Queries**

In addition to Clinical Queries, the National Library of Medicine has developed pre-formulated search strategies to aid in searching PubMed. You will find queries for:

- Health Services Researchers (e.g., Electronic Health Records, Comparative Effectiveness Research, etc.)
- Subjects (e.g., AIDS, Bioethics, Cancer, Population Health, Veterinary Science, etc.)
- Journal Collections (Dental Journals and Nursing Journals)

**MeSH Database**

MeSH (Medical Subject Headings) is a controlled vocabulary that provides a way to retrieve citations on topics that may use inconsistent terminology to describe a common theme.

You can access the MeSH Database from PubMed’s homepage under Tools or use the “Search” drop-down menu to select MeSH from the list of databases.

- Once you enter a term, MeSH will return the best matches it can find – sometimes it is an exact match.
- At this point, the search may return multiple suggestions or an exact match. If only one match is found, the full record will display.
My NCBI

Use My NCBI to save citations, search strategies and to customize PubMed. Sign into My NCBI at top right corner of PubMed.

Sign in to NCBI

Registering for My NCBI

• Click Sign in to NCBI to register for a NCBI account.
• Optional features include 3rd party sign, such as Google or NIH Login, and the option to Keep me signed in unless I sign out. You may want to keep this box unchecked when using public computers, such as those in sections of the LRC.

Note(s)

1) If multiple suggestions are listed, either click on an individual heading for the full record or use the check boxes to select and MeSH terms to Add to search builder or Search PubMed.
2) In the full record display, the MeSH definition is displayed, along with options to refine term by a specific subheading, e.g., genetics, mortality, economics, etc.
3) Use Restrict to MeSH Major Topic to limit results to articles in which the topic is the major focus.
4) Use Do not include MeSH terms found below… to not include the more specific terms listed underneath the term in the Tree section.

MeSH Search Tips

1) For a single article indexed with MeSH, typically 12-14 MeSH headings may be applied. However, only a select few are selected as the main subjects – the Major Topics – of the article.
2) MeSH terms are arranged hierarchically in relation to each other. For example, under the MeSH term, Head you will retrieve articles indexed with Eyes, Nose, Ears, etc.

Saving searches & automatic e-mail updates

You can save up to 100 search strategies using your My NCBI account. To save a PubMed search strategy:

• After running a search, click Save search just below the search box.
• A new window will open to prompt you to name your search and click Save.
• My NCBI will prompt you to set up e-mail updates, rename search, select report format, and number of items to be sent.

You can view and edit your searches under the Saved Searches section.

• Click on the search title to see all results.
• To view only new results, click the number in the What’s New column.
• Click on the gear icon to modify a search’s notification settings.

Saving Search Results in My NCBI Collections

My NCBI’s Collections is a feature that saves the results of a PubMed search or selected citations. Each collection can have a maximum of 1500 citations, and each My NCBI account holds up to 100 collections.
From either the results or the Clipboard, select the citation(s) you wish to save by clicking in the check box. If you check no boxes at all, all results will be sent. If you do not select any of the citations using the check boxes, all the citation (up to 500) will be sent.

From Send to, select Collections.

You will be prompted to Create new collection or Append to an existing collection and click Save. For citations to be added to My NCBI Collections, you will need to TURN OFF any pop-up blockers on your browser.

Your collections will be found in the Collections section. Access your saved collections by clicking on the hyperlinked title of the collection. Click on the gear icon to view and edit the collection.

My Bibliography

My Bibliography, like Collections, allows users to save citations found in PubMed in a centralized location. Users may also manually enter citations for items that are not in PubMed. My bibliography may be shared with others or exported to other citation management programs.

Setting up Filter Tabs

My NCBI’s Filters feature adds filter tabs to the PubMed search results page. These tabs, found on the right hand side of the screen, will display only resources with a specific characteristic in common, such as age group, language, date published, or institutions that have access to articles. You can have up to 15 active filters using this feature. To set up Filters preferences:

- Go to the Filters section of MyNCBI and click Manage Filters.
- You can select to Create custom filter or use the Browse/Search for PubMed Filters by category.
- The Create custom filter allows you to enter a search query, such as a specific author name, e.g., fauci as. Enter a filter title and click Save Filter.
- Under Browse/Search for PubMed Filters, the default is to display the most popular filters. However, you can select filters from:
- **LinkOut** – resources provided by outside organizations
- **Properties** – category groups such as age groups, gender, etc.
- **LinksFilter** – links to other NCBI databases, e.g., OMIM.

**USUHS LinkOut Filter**

When you log in to MyNCBI, it overwrites your PubMed@USU access – links to Electronic and Hardcopy do not appear. To restore the feature while signed into MyNCBI, you will need to set a LinkOut Filter for Uniformed Services University of Health Sciences.

- Go to the **Filters** section, click **Manage Filters, LinkOut**, enter **uniformed** in the search box, and click **Search**, see box below.
  - In the **Browse/Search for PubMed Filters** area, **Uniformed Services University – Learning Resource Center**… will display, check both the **Filter** and **Link** icon boxes.
  - In the **Your PubMed filter list** area, you will see the newly added **Standard filter** and **Standard provider icon**.
- The next time you run a search in PubMed, the USU Electronic or Hardcopy icons will display.

**NCBI Site Preferences**

In My NCBI, click on **NCBI Site Preferences** to customize results display, highlighting, etc.