Searching PubMed (beyond the basics)

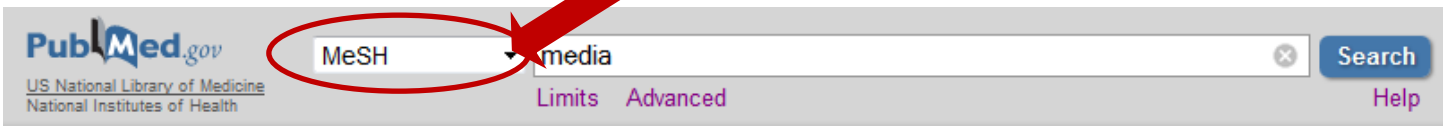
** Remember to log in to your MyNCBI account in order to track your activity for future reference**

How you use PubMed to search for citations will depend on what type of information you need and for what purpose. If you just need a bit of background on a topic or are doing a preliminary scoping search, entering a few keywords into the search box should be sufficient to pull up some recent articles.

Example: 

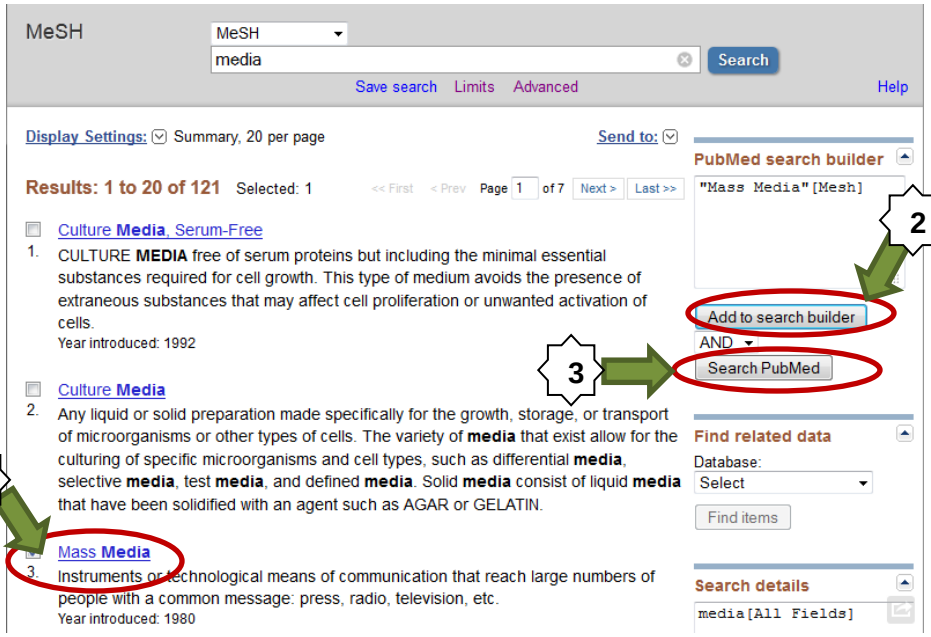
Check through the first couple of pages of results to see if there is anything there to answer your question. If there isn't anything or much that is useful, one of the first things you should do is check the Search details box to see how PubMed has mapped the terms you entered. This information can help point you in the direction you next need to go to get more relevant result. In this example, you can see that PubMed has mapped your words to the index (Medical Subject Heading or MeSH) term for "health promotion" as well searching in all fields for all of the terms alone or in combination.

PubMed did not identify a MeSH term for media, so but it is always a good idea to double check to see if any of your concepts have appropriate MeSH terms.



Select (1) the best term and **add it (2)** the to the Search Box– if there is just one appropriate term, you can use AND or OR, if there are 2 or more terms of interest for 1 concept, choose OR & click "Send to Search Box".

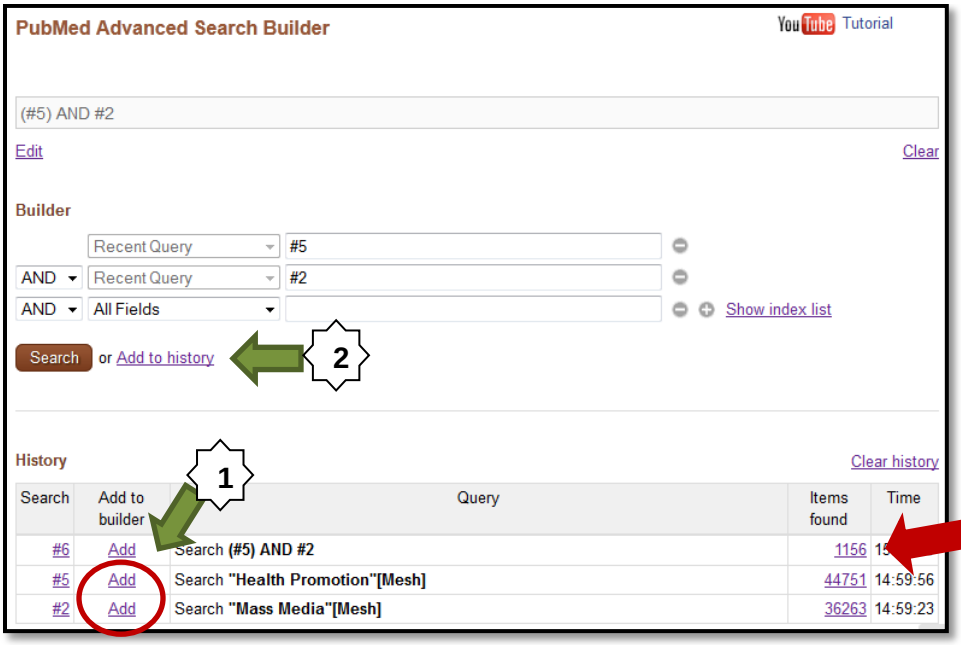
Next **click Search PubMed (3)** to find articles indexed with that term in PubMed.



Text word searching:

In addition to searching for articles indexed with the appropriate MeSH terms, you will want to search PubMed for articles that include other related words to describe your concepts. These will help capture articles that aren't indexed properly or to search for concepts that don't have good matches within MeSH. **Search PubMed by adding [tw] after the word or phrase (put the multiple words in quotes "" to search as an exact phrase).**

Once you have searched for MeSH terms and text words for all the concepts in your question (NOTE – if there are not good fits for MeSH terms, it's ok to only use text words), you need to combine them. This is done by going to the Advanced Search page.

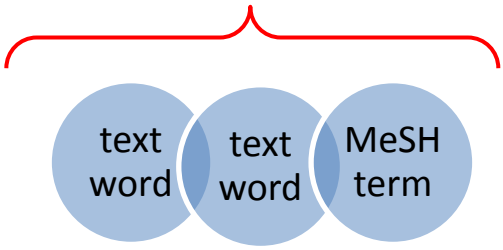


You can click on "Add" (step 1) next to the number of the search to the Search Box, or you can type the numbers into the Search Builder.

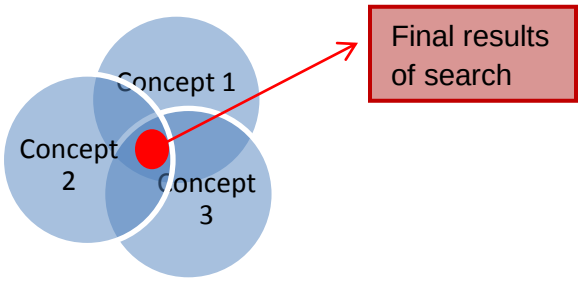
Then click "Search" to run the search in PubMed, or select "Add to history" (step 2) to stay on the advanced search page showing the results of the combination here

Use OR to combine searches relating to each concept first, then use AND to combine strings of terms for each concept that are ORed together.

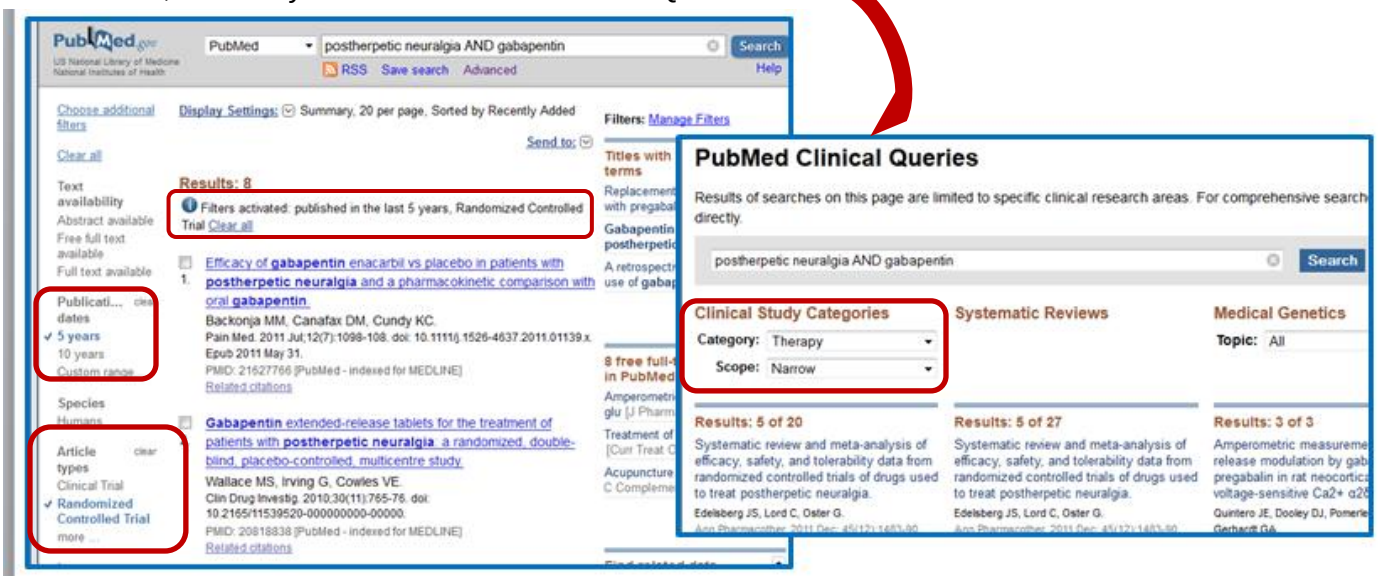
Terms **ORed** together to cover **one** concept



Multiple concepts **ANDed** together



Once you have your search completed, you can add filters (used to be limits) in order to get the most appropriate and relevant results depending on your question. You can select one or more of the filters in the left-hand column, or enter your search into the Clinical Queries tool.



Be aware that if you have done a search that includes text word searching (as opposed to index terms), using any limits besides publication date and language will take out citations that are not yet indexed in MEDLINE, such as those that are in process or supplied by publisher (see the table and † note below).

Searching is usually a multistep process; the order and number of steps will vary depending on your search topic, the type and number of results you are interested in, and how comprehensive you need to be in your search. This is why I highly recommend 1) **search each concept separately** so they can be combined, re-combined, or taken out of the search strategy, and 2) **apply filters last** and **DON'T FORGET** to remove them before you start another search or modify the current one.

Some useful tags to use with terms in the search box:

Function	Tag syntax
Search for word or phrase in title and/or abstract	[tiab]
Search for word as a text word	[tw]
Medical Subject Heading*	[MeSH]
Focus on the MeSH term**	[MAJR]
Certain subgroubs of articles	[sb], eg. inprocess[sb] or publisher[sb]†
Find articles by a certain author	[au]

* This must be in the exact phrasing as the MeSH term, so it is usually best to search for the term in the MeSH database and send it to a PubMed search from there (see above), unless you are sure of the term

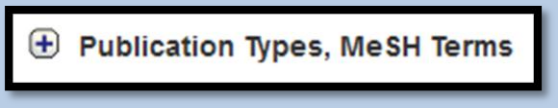
** In some cases, it is handy to just change the syntax in the search string from [MeSH] to [MAJR] in order to narrow down results to those that deal more significantly with your topic.

†searching these subsets and ANDing them with a keyword search (on the Advanced Search page) can help identify articles in PubMed that have not yet been indexed in MEDLINE – useful for making sure you get all recent articles on a topic.

The first step with any *comprehensive* database searching is to formulate your question in an answerable form. This is where you would use the concept map sheet provided in our first session (and attached at the end of this document). Thorough searching requires combining keywords (searched using [tiab], [tw], or [All Fields]) and index terms ([MeSH]) for each concept with OR. Then you can combine the strings for each concept with AND.

NOTE:

If you find one or two articles that directly address your question, look at the MeSH terms used in order to get an idea of other terms to add to your search. To do this, open the full record for the article and expand the supplemental information by clicking:



Concept Map for Constructing Search Strategies

Search statement - I am looking for articles to answer the question:

After writing out the question, underline the key concepts. Decide how the concepts will be combined together using the AND and OR Boolean operators. Concepts to be ANDed go across the grid and concepts to be ORed go down the grid.

Fill in the grid with the key concepts and possible synonyms for each concept. Add subject headings first (where applicable).

	Concept 1	AND	**Concept 2**	AND	**Concept 3**	AND	**Concept 4**	AND	**Concept 5**
OR									
OR									
OR									
OR									
OR									
OR									
OR									
OR									

Synonyms

Screening Criteria (Limits):