

Developing a Research Strategy with PubMed

Learn Resource Center



Rocky Mountain
University
of Health Professions

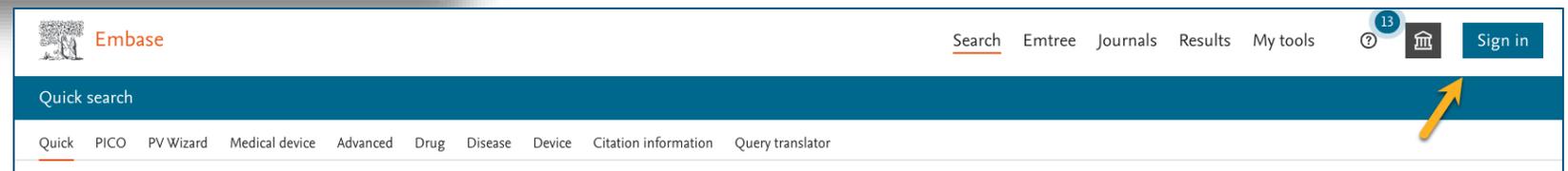
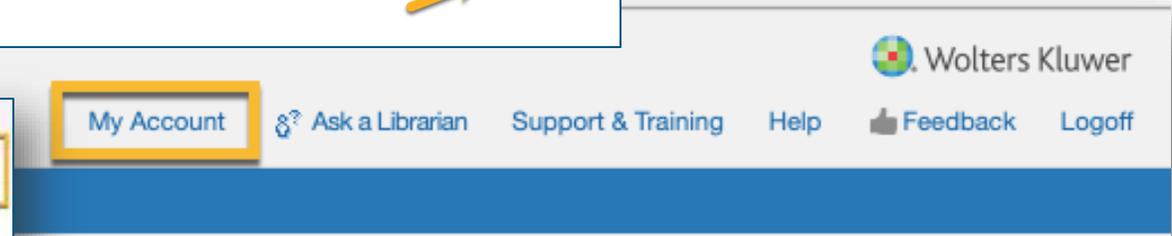
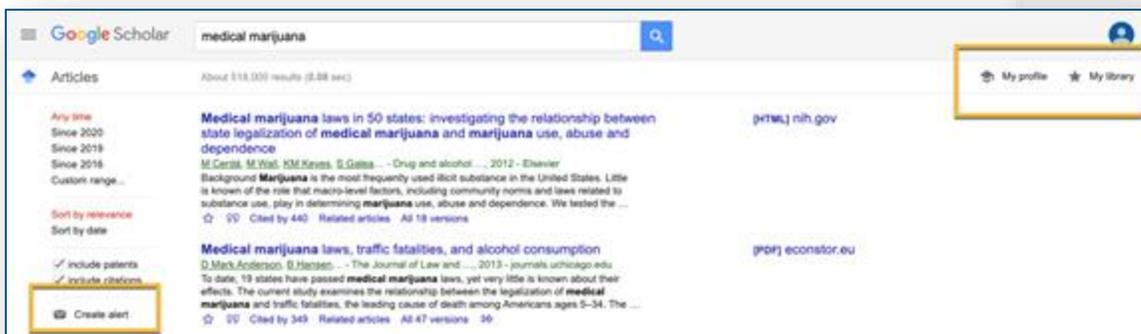
Learning Objectives

- Set up your MyNCBI account and learn how this will help you
- Understand MeSH Terms and be able to apply them in a search strategy.



What Does a MyNCBI Account Do?

Virtually all databases allow the creation of a personal account within our institutional account. A personal account let's you save searches, set up alerts, and create bibliographies. This is true of EBSCO, Embase, Ovid, and Google Scholar.

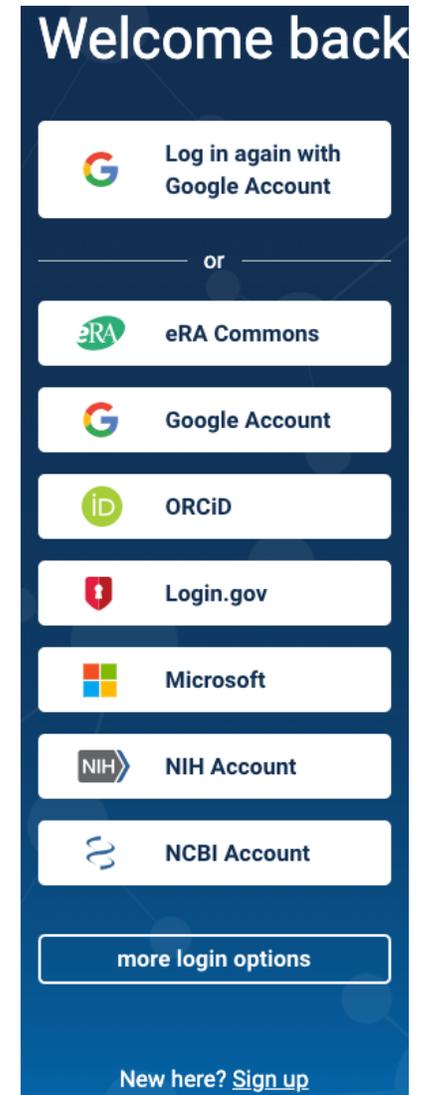


Setting up a MyNCBI Account

To set up a MyNCBI account in PubMed, click on Login.

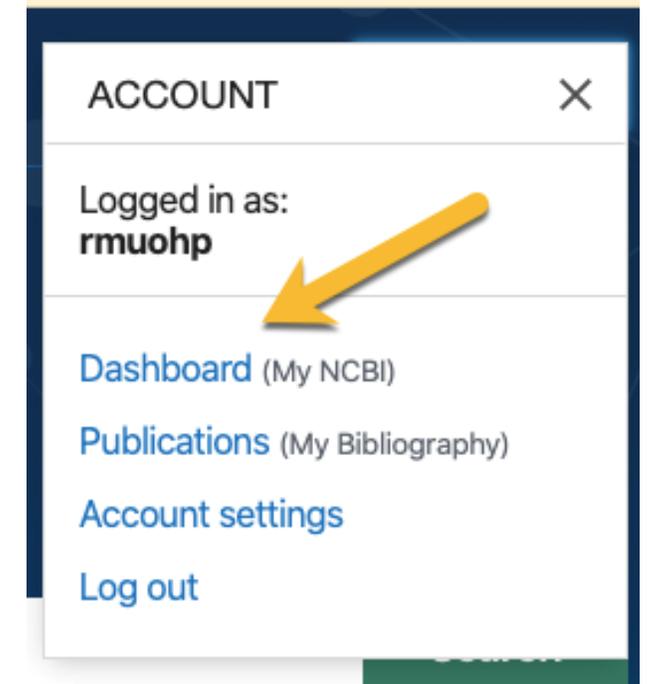


If you already have an account, it says, "Welcome back!" You can use the Google option with a personal Google account. The Microsoft option will not let you use your rm.edu or a business address. Follow the instructions to set up your account. Be aware that RMU doesn't have any control over NCBI. We can't reset passwords. Contact their "Help Desk" with your questions.



Access Your Account

PubMed now shows the account name, which, in my case, is rmuohp. Click on your account name. Click on “Dashboard.”



Tour of My NCBI

You can customize your site (upper right-hand corner), create bibliographies, view “Recent Activities,” access any “Saved Searches,” and set up links to take you to the full text in RMU’s subscriptions.

My NCBI

The screenshot displays the My NCBI interface with several panels. At the top right, a yellow box highlights the navigation links: [Customize this page](#), [NCBI Site Preferences](#), [Video Overview](#), and [Help](#).

Search NCBI databases panel: Shows a search dropdown set to 'PubMed', a search input field, and a 'Search' button. A hint below reads: "Hint: clicking the 'Search' button without any terms listed in the search box will transport you to that database's homepage."

My Bibliography panel: States "Your bibliography contains 24 items." and provides a shareable URL: <https://www.ncbi.nlm.nih.gov/myncbi/1Ze0crdUxn6Q6/bibliography/public/>. It features a table of delegated bibliographies:

| Bibliography | Items | Sharing |
|---|-------|---------|
| Karen Newmeyer's bibliography | 24 | public |

Recent Activity panel: Shows a table of recent searches:

| Time | Database | Type | Term |
|-------------|----------|--------|------------------------------|
| 24-Mar-2023 | MeSH | search | lung cancer |
| 24-Mar-2023 | MeSH | search | chemotherapy |

Saved Searches panel: Lists saved searches with columns for Search Name, What's New, and Last Searched:

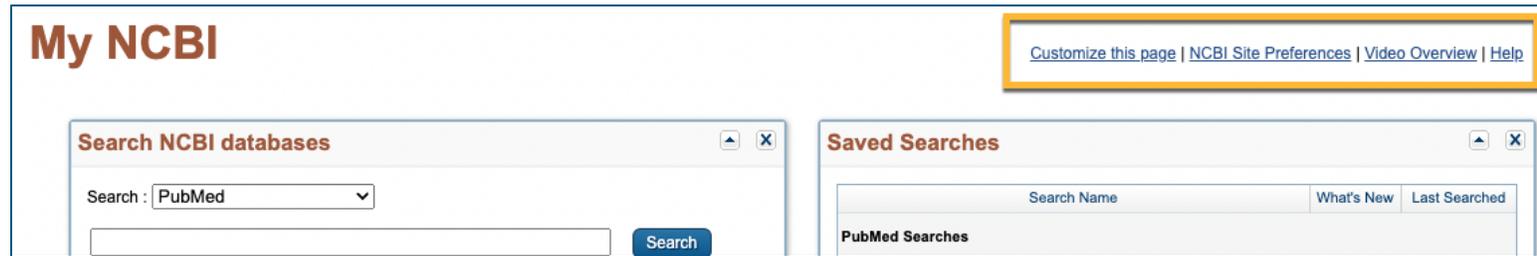
| Search Name | What's New | Last Searched |
|--|------------|---------------|
| Rocky Mountain University of Health Professions... | 4 | 25 days ago |
| Rocky Mountain University of Health Professions... | 145 | 5 years ago |

Collections panel: Shows a table of collections:

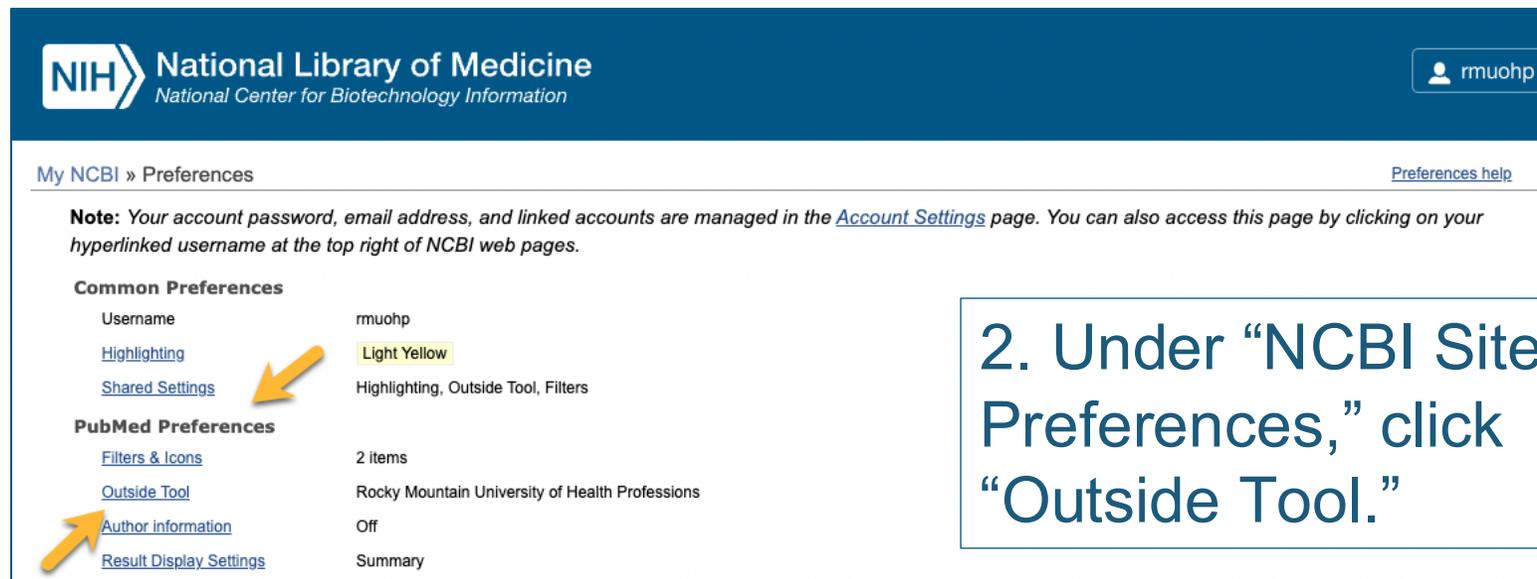
| Collection Name | Items | Settings/Sharing | Type |
|---------------------------|-------|------------------|----------|
| Favorites | 16 | Private | Standard |

Filters panel: Shows filters for PubMed (2 active) with columns for Active, Name, and Type.

Set up Preferences



1. In the top right, click “NCBI Site Preferences.”

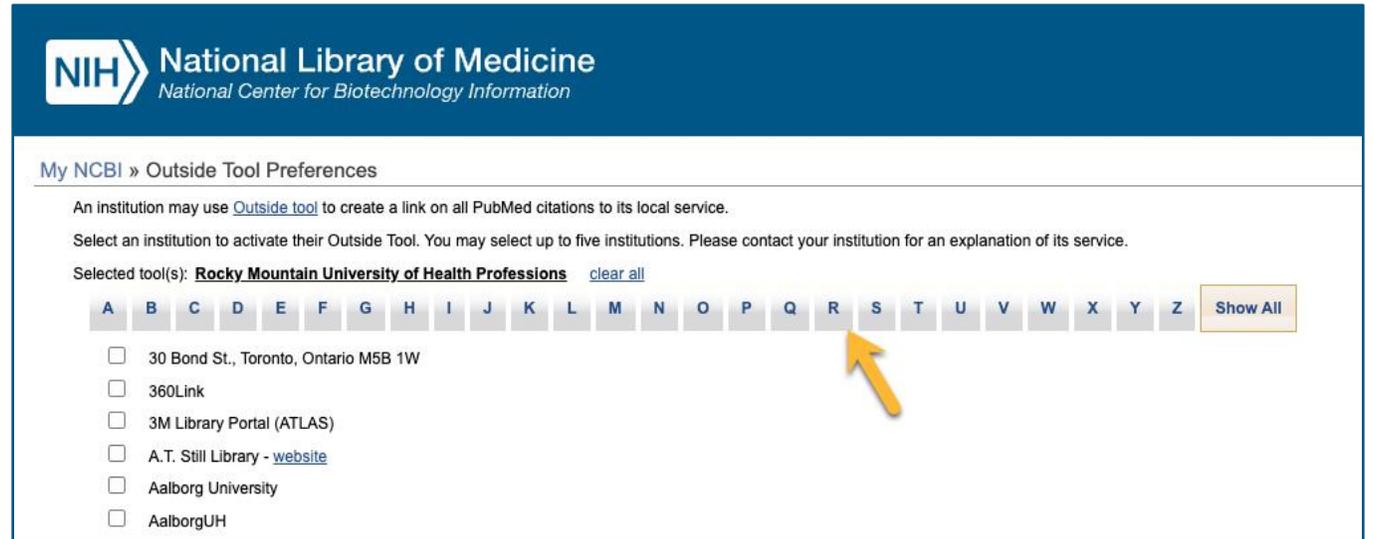


Set up Filters

3. Click “R” at the top of the page to jump to the Rs. Scroll down to find Rocky Mountain University.

4. Click the box to the left. That’s it. You are done. There is no “submit” or “save” button.

Return to PubMed.



NIH National Library of Medicine
National Center for Biotechnology Information

My NCBI » Outside Tool Preferences

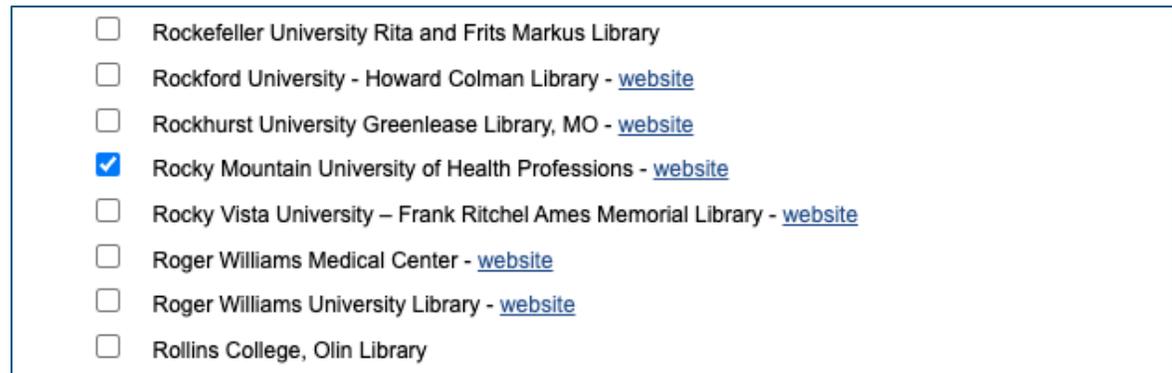
An institution may use [Outside tool](#) to create a link on all PubMed citations to its local service.

Select an institution to activate their Outside Tool. You may select up to five institutions. Please contact your institution for an explanation of its service.

Selected tool(s): **Rocky Mountain University of Health Professions** [clear all](#)

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [Show All](#)

- 30 Bond St., Toronto, Ontario M5B 1W
- 360Link
- 3M Library Portal (ATLAS)
- A.T. Still Library - [website](#)
- Aalborg University
- AalborgUH



- Rockefeller University Rita and Frits Markus Library
- Rockford University - Howard Colman Library - [website](#)
- Rockhurst University Greenlease Library, MO - [website](#)
- Rocky Mountain University of Health Professions - [website](#)
- Rocky Vista University – Frank Ritchel Ames Memorial Library - [website](#)
- Roger Williams Medical Center - [website](#)
- Roger Williams University Library - [website](#)
- Rollins College, Olin Library

Outside Tools Links You to RMU Full-Text

The Outside Tool links your account with our full-text holdings.



Review > Expert Rev Neurother. 2019 Mar;19(3):195-209.
doi: 10.1080/14737175.2019.1580145. Epub 2019 Feb 27.

Objective and biological markers in bipolar spectrum presentations

 Trisha Chakrabarty ¹, Lakshmi N Yatham ¹
Affiliations + expand

FULL TEXT LINKS

 View full text

 RMU: FULL TEXT OPTIONS

ACTIONS

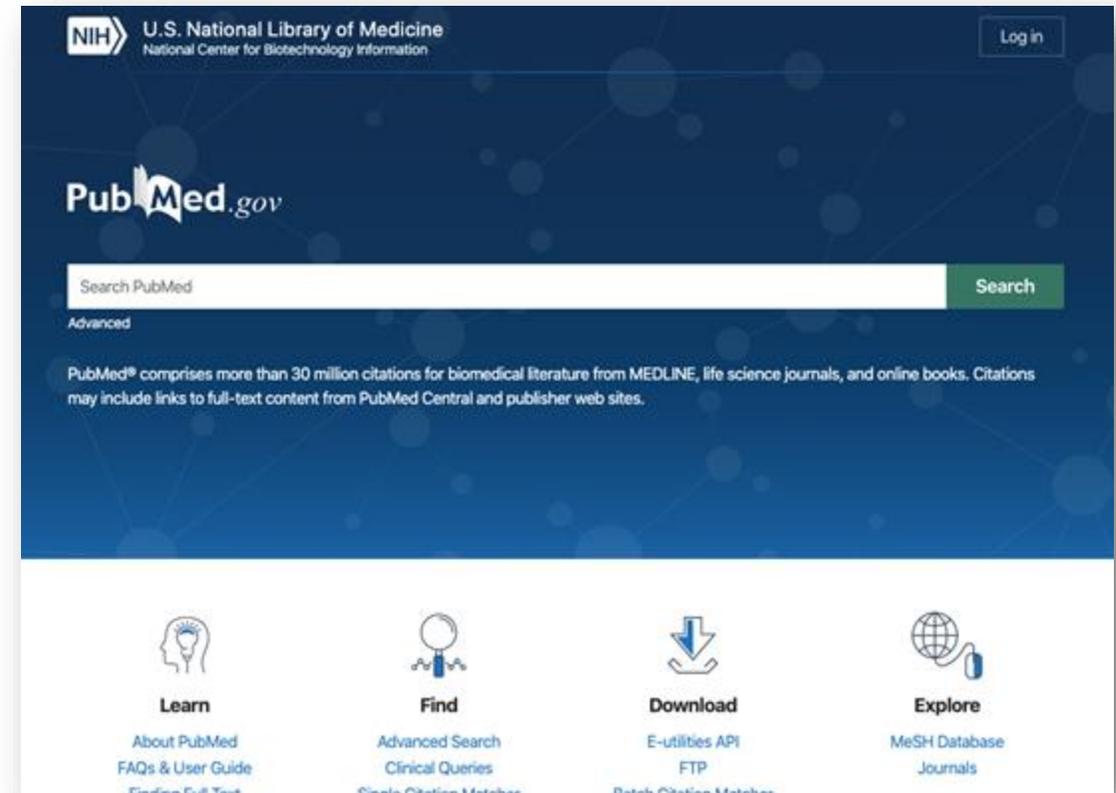
 Cite

Click "Full Text Option" to reach the full text or a link to request that article through Interlibrary Loan.

Using PubMed, Mesh Terms

In the last PowerPoint, we searched PubMed using Automatic Term Mapping (ATM). This time, we will look at using MeSH terms as a different search option in PubMed.

PubMed is a free search engine for Medline, a government database created by the National Library of Medicine (NLM). It includes articles on clinical medicine, nursing, allied health, pharmacology, and basic science. One advantage of using PubMed is the use of MeSH terms.



MeSH Terms



So, what is MeSH?

MeSH (**M**edical **S**ubject **H**eadings) is the (U.S.) National Library of Medicine's controlled vocabulary thesaurus and is used for indexing articles for MEDLINE. It is a set of terms naming descriptors in a hierarchical structure that enables you to search at various levels of specificity.

To simplify

There are many words to describe the same concept. For example, Brain Cancer can be called:

| | |
|-----------------------|------------------------|
| Brain Cancer | Brain Cancers |
| Brain Tumor | Brain Tumors |
| Brain Neoplasm | Brain Neoplasms |
| Intracranial Neoplasm | Intracranial Neoplasms |
| Malignant Brain Tumor | Malignant Brain Tumors |
| Benign Brain Tumor | Benign Brain Tumors |
| Primary Brain Tumor | Primary Brain Tumors |

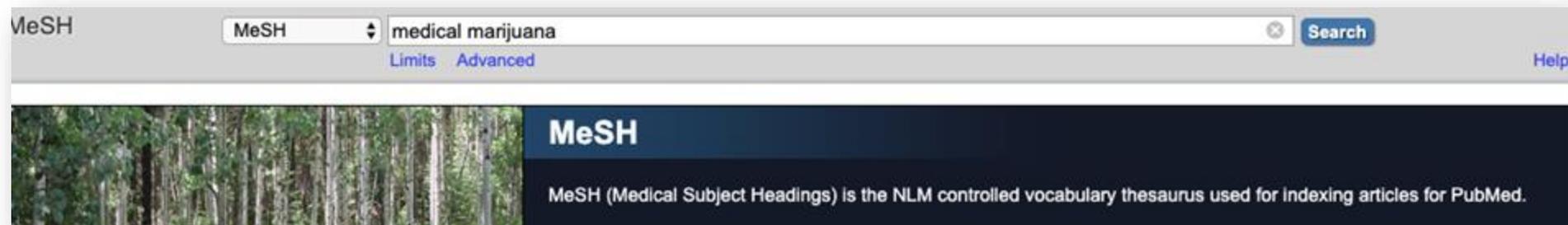
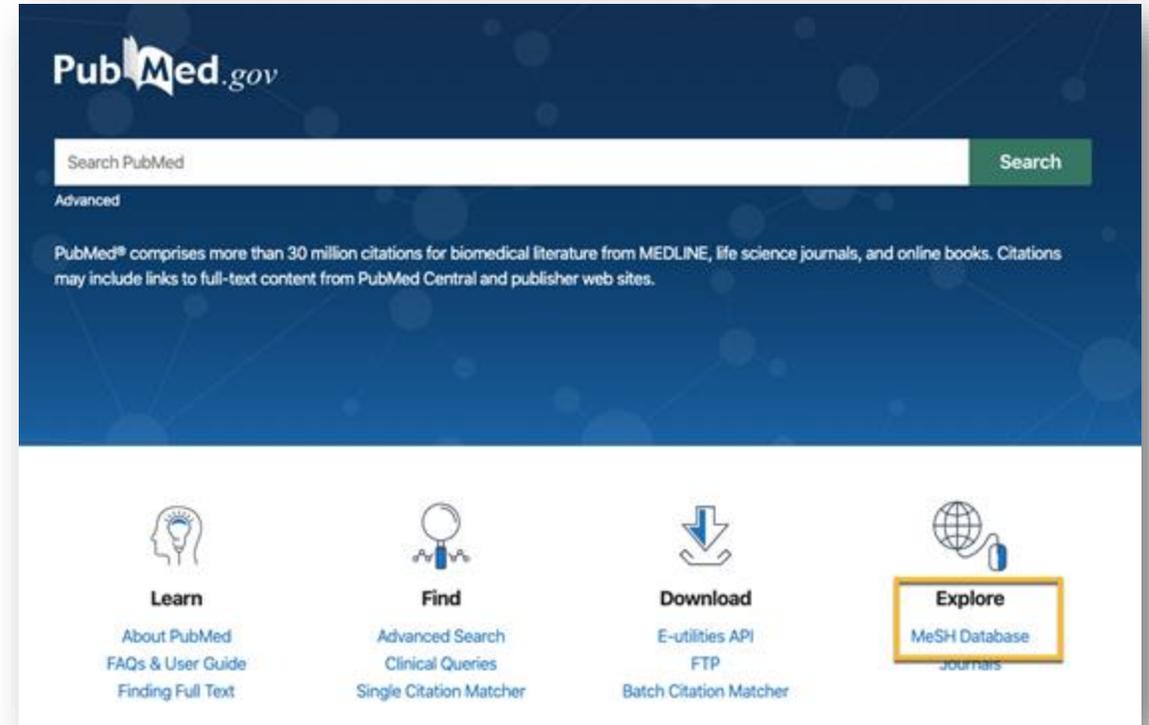
Rather than incorporate all these terms into your search, you can use the MeSH term assigned to this concept and get them all.

Next, how to do that.

Searching for MeSH Terms

MeSH terms are one of many tools you can use in PubMed. MeSH terms can be mixed with other search terms. Here is how it works.

From the main screen, click on MeSH Database. Once it loads, type your term(s) in the search box.



PubMed Search Builder

We will use our search from the previous PowerPoint: Medical Marijuana as a Treatment for Anxiety or Depression. There is only one term in the MeSH database for medical Marijuana. You can select a more specific term under this heading, like “therapeutic use,” but it is not required. You can see the other entry terms for this heading. Put the general term in the “PubMed Search Builder” on the terms can be added in the same manner.

The screenshot displays the MeSH database interface for the term "Medical Marijuana". The search bar at the top contains "medical marijuana" and a "Search" button. The main content area shows the following details:

- Medical Marijuana**
Product of the CANNABIS plant, CANNABINOIDS, or synthetic derivatives thereof, used in the treatment of a wide range of clinical symptoms.
Year introduced: 2014
- PubMed search builder options**
Subheadings:
 - administration and dosage
 - adverse effects
 - analysis
 - blood
 - chemical synthesis
 - chemistry
 - classification
 - economics
 - history
 - isolation and purification
 - metabolism
 - organization and administration
 - pharmacokinetics
 - pharmacology
 - physiology
 - poisoning
 - standards
 - statistics and numerical data
 - supply and distribution
 - therapeutic use
 - urine
- Restrict to MeSH Major Topic.
- Do not include MeSH terms found below this term in the MeSH hierarchy.
- Tree Number(s): D26.528
- MeSH Unique ID: D064086
- Entry Terms:
 - Marijuana, Medical
 - Medicinal Cannabis
 - Cannabis, Medicinal
 - Marijuana Treatment
 - Treatment, Marijuana
 - Medicinal Marijuana
 - Marijuana, Medicinal
 - Medical Cannabis
 - Cannabis, Medical
 - Marijuana Dispensaries
 - Dispensaries, Marijuana

On the right side, the "PubMed Search Builder" tool is visible, showing the search query: "Medical Marijuana"[MeSH]. Below the query is a "Send to:" field with a "Search PubMed" button. The "Related information" section includes links for PubMed, PubMed - Major Topic, Clinical Queries, NLM MeSH Browser, and MedGen. The "Recent Activity" section shows a list of recent searches, including "Medical Marijuana" and "medical marijuana (1)".

PubMed Search Builder

Searching the MeSH database of “treatment.” Here, there are 54 options. Scrolling down, click the box by #12, “Treatment Outcome.” Scroll back up and add to the Search Builder.

PubMed Search Builder

```
("Medical Marijuana"[Mesh]) AND  
"Treatment Outcome"[Mesh]
```

Add to search builder

AND ↕

Search PubMed

- [Treatment Failure](#)
11. A measure of the quality of health care by assessment of unsuccessful results of management and procedures used in combating disease, in individual cases or series.
Year introduced: 1993
- [Treatment Outcome](#)
12. Evaluation undertaken to assess the results or consequences of management and procedures used in combating disease in order to determine the efficacy, effectiveness, safety, and practicability of these interventions in individual cases or series.
Year introduced: 1992
- [Substance Abuse Treatment Centers](#)
13. Health facilities providing **therapy** and/or rehabilitation for substance-dependent individuals. Methadone distribution centers are included.
Year introduced: 1994
- [Treatment Refusal](#)
14. Patient or client refusal of or resistance to medical, psychological, or psychiatric **treatment**. (APA, Thesaurus of Psychological Index Terms, 8th ed.)
Year introduced: 1991
- [Residential Treatment](#)
15. A specialized residential **treatment** program for behavior disorders including substance abuse. It may include therapeutically planned group living and learning situations including teaching of adaptive skills to help patient functioning in the community. (From Kahn, A. P. and Fawcett, J. Encyclopedia of Mental Health, 1993, p320.)
Year introduced: 1966(1964)
- [Emergency Treatment](#)
16. First aid or other immediate intervention for accidents or medical conditions requiring immediate care and **treatment** before definitive medical and surgical management can be procured.
Year introduced: 1998

PubMed Search Builder

The last term is "anxiety disorder." Only four options appear for this MeSH search. Select the term by clicking the box and then "Add to search builder." PubMed defaults to "AND," but it can be changed by clicking the dropdown arrow. To run the search, click "Search PubMed."

The screenshot displays the MeSH Search Builder interface. At the top, the search term "anxiety disorder" is entered in the search bar, with a "Search" button to its right. Below the search bar, there are links for "Create alert", "Limits", and "Advanced".

The main content area is titled "Search results" and shows "Items: 4 Selected: 1". A list of four MeSH terms is displayed, each with a checkbox and a description:

- [Anxiety Disorders](#)
1. Persistent and disabling ANXIETY.
Year introduced: 1981
- [Anxiety Separation](#)
2. Anxiety experienced by an individual upon separation from a person or object of particular significance to the individual.
Year introduced: 1968
- [Patient Health Questionnaire](#)
3. A self-administered version of the Primary Care Evaluation of Mental Disorders (PRIME-MD), a diagnostic tool containing modules on multiple mental health disorders including anxiety, alcohol, eating, and somatoform modules. The Patient Health Questionnaire (PHQ-9) is designed specifically for mood/depression scoring each of the 9 DSM-IV criteria based on the mood module from the original PRIME-MD. The Generalized **Anxiety Disorder** scale (GAD-7) scores 7 common anxiety symptoms.
Year introduced: 2018
- [Phobia Social](#)
4. **Anxiety disorder** characterized by the persistent and irrational fear, anxiety, or avoidance of social or performance situations.
Year introduced: 2017

On the right side, the "Send to:" section shows the "PubMed Search Builder" configuration. The search query is displayed as: `((("Medical Marijuana"[Mesh]) AND "Treatment Outcome"[Mesh]) AND "Anxiety Disorders"[Mesh])`. Below the query, there is an "Add to search builder" button and a dropdown menu set to "AND". A "Search PubMed" button is highlighted with a yellow box. A "Find related data" section is also visible, with a "Database:" dropdown set to "Select" and a "Find items" button.

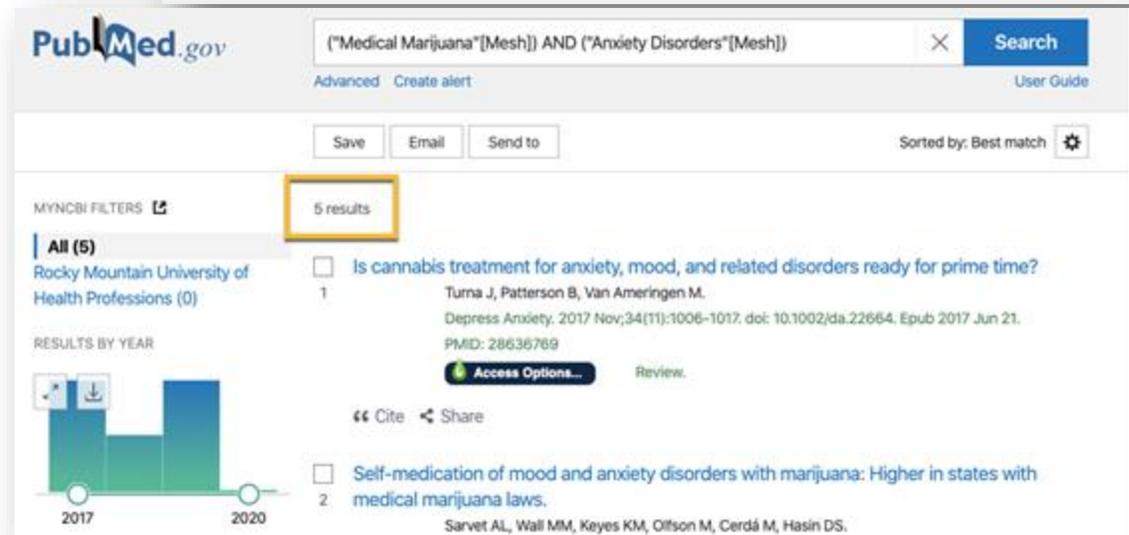
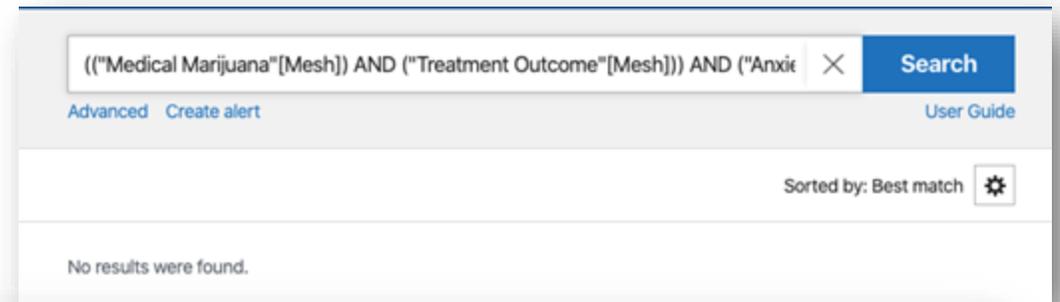
At the bottom right, the "Search details" section shows the query: `"anxiety disorders"[MeSH Terms] OR anxiety disorder[Text Word]`. A "Search" button and a "See more..." link are located below this section.

PubMed Search Builder Results

And our results? Zero! How many did we get with EBSCO?
Thousands! Do not despair and assume MeSH terms don't work.
PubMed is a smaller database than EBSCO and MeSH terms are
more precise.

I could delete this search and
pretend it never happened.
However, this illustrates a point:
research is messy.

Rerunning this search without
the "treatment" term brings five
good articles.



Research: Summary

Takeaways:

- Set up your MyNCBI account to get links to full-text
- Break your research question into basic concepts
- MeSH terms are a useful tool
- Don't despair when your search returns zero results
- Contact your librarians for help



Next Steps

More PowerPoints

- The Tinker Toy Research Method
- Finding Full Text/Requesting Articles Through Interlibrary Loan
- More Research Tools
 - Embase
 - ProQuest



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