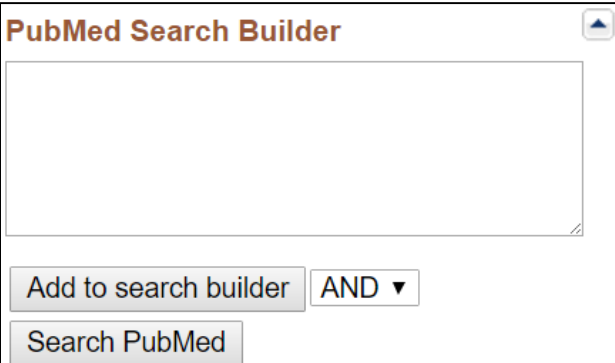


## Combine MeSH Terms to Search PubMed

Use the PubMed Search Builder to combine multiple MeSH terms and Subheadings.



1. Check the boxes of the desired MeSH terms, subheadings, and/or restrictions.
2. Select either **AND**, **OR**, or **NOT** from the drop-down menu, then click the **Add to Search Builder** button.
3. Continue to search for other MeSH and add terms.
4. *NOTE: Make any necessary changes to the parentheses and terms in the search box to clarify the search.*
5. When finished, click **Search PubMed**

*Alternatively:* do complex searches in pieces. Send groups of terms separately to PubMed and combine terms in PubMed's **Advanced Search Builder** utilizing your **Search History** to add items to your search builder.

## Advanced PubMed Searches with Field Tags

Search **PubMed** directly by using specific MeSH headings, subheadings, and other qualifier codes (not case sensitive). For the complete list, visit **PubMed Help** and the **Search Field Descriptions and Tags** link.

- **MeSH Headings:** [mh] or [MeSH] may be added to a term to restrict your PubMed search to only MeSH terms (e.g. knee [mh])
- **Subheadings:** Two letters may be used for subheadings. Therapy is **th**; to search for articles on cancer therapies, you can use "Neoplasms/therapy"[Mesh] or Neoplasms/th as equivalent searches.
- Do not include MeSH terms found below this term in the MeSH hierarchy: use [mh:noexp], [majr:noexp], or [sh:noexp] to restrict searches to articles focused on the broadest MeSH term.

### Assistance and Training

**Help** and **Tutorials** are available. Find additional information in the MeSH browser:

<https://www.ncbi.nlm.nih.gov/mesh>.

*Funded in whole or in part with Federal funds from the National Library of Medicine (NLM), National Institutes of Health (NIH), under cooperative agreement No. UG4LM012340 with the University of Maryland, Baltimore. This resource is freely available at:  
<https://nmlm.gov/training/resources/meshtri.pdf>.*

*Reviewed: January 2017*

## Searching PubMed® with MeSH®

The National Library of Medicine's (NLM) **Medical Subject Headings (MeSH)** is the controlled vocabulary thesaurus used for indexing articles for PubMed. Available at: **PubMed.gov**.

MeSH provides a consistent way to retrieve information where different terms are used by authors for the same concept or topic. MeSH terms apply to citations with the label "*PubMed - Indexed for MEDLINE*."

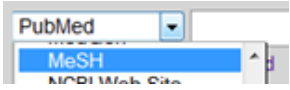
### Features in MeSH

MeSH contains over 27,000 descriptors. It is updated weekly and reviewed annually.

- Use MeSH terms to search citations *Indexed for MEDLINE*. (Nearly 90% of the PubMed database.)
- Limit searches to citations where the MeSH term is the focus of the article.
- Broaden/Narrow a search using the MeSH hierarchy.
- Use subheadings to build complex and focused search strategies.
- Focus searches using other types of MeSH terms including publication types [pt], pharmacologic actions [pa], or substance names [nm].

## Getting Started

Access MeSH in PubMed from the drop-down menu OR click on the **MeSH Database** from the PubMed homepage.



Enter a topic in the search bar and click the Search button. Results will vary from: a single term (prognosis), multiple terms (measles), or related terms (cancer).

[Neoplasms](#)  
 1. **New abnormal growth of tissue.**

*Note: Verify that the definition of the term matches the expected definition.*

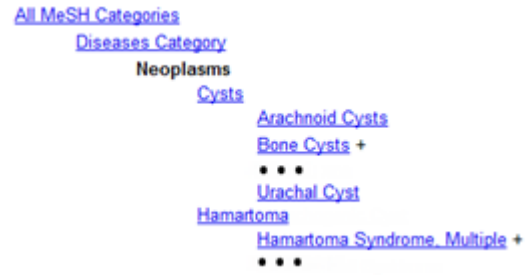
## Refine a Search

The MeSH Database offers options to clarify and focus searches. Click the selected MeSH term (Neoplasms in this example) to view:

- Definition, often with the year introduced.
- Check boxes including:
  - **Subheadings**
  - Restrict Search to MeSH Major Topic
  - Do not include MeSH terms found below this term in the MeSH hierarchy.
- **Entry Terms** (similar terms used by authors)
- **See Also** related and linked terms
- MeSH hierarchy of linked terms.

## The MeSH Hierarchy

MeSH terms are arranged hierarchically by subject categories with more specific (narrower) terms arranged beneath broader terms. PubMed automatically searches to include all narrower terms.



An unrestricted search for **neoplasms** will include articles which focus on the main term (neoplasms), but also include the narrower terms (e.g. urachal cyst).

Check **Do not include MeSH terms found below this term in the MeSH hierarchy** for articles focused only on the main term and eliminate the narrower terms.

*NOTE: Focus a search by using the MeSH hierarchy to identify appropriate broader or narrower terms or to find additional search terms. Click on terms to access them.*

## Related Information

Search MeSH and select one specific term. Use **Related Information** to search with the term.

- PubMed
- PubMed – Major Topic
- Clinical Queries
- NLM MeSH Browser

## Major Topic Headings

Subject analysts examine each article and assign the most specific MeSH terms applicable, with a related subheading; typically ten to twelve headings per citations. In PubMed, the major topic is represented by an asterisk.

**MeSH Terms**  
[Fentanyl](#)  
[Neoplasms/therapy\\*](#)

To view MeSH terms for a selected article in PubMed, click on the link to **MeSH Terms** below the citation in the Abstract Format.

## Publication Types, MeSH Terms, Substances

In the MeSH Database, use **Restrict to MeSH Major Topic** to limit a search to citations where that term is the major focus of the article. The term is added to the search builder will be followed by [MAJR] (e.g. **“Neoplasms” [MAJR]**)

## Subheadings (Qualifiers)

Subheadings help describe more completely a particular aspect of a topic. In the MeSH database, subheadings logically paired with the main heading are presented. Check the appropriate box(es), then use the **Add to Search Builder** button with **OR** to build a search.

**Subheadings:**

<input checked="" type="checkbox"/> analysis	<input checked="" type="checkbox"/> epidemiology
<input type="checkbox"/> antagonists and inhibitors	<input type="checkbox"/> ethnology
	<input type="checkbox"/> etiology

In this example, the search would include: (“Neoplasms/analysis”[MeSH] OR “Neoplasms/epidemiology”[MeSH])