What are Subject Headings & how do they differ from keyword searching?

Subject Headings, also be referred to as “index terms,” are controlled vocabulary terms used in database records to make searching easier and more successful. By standardizing the words or phrases used to represent concepts, you don't need to try and figure out all the ways different authors could refer to the same concept.

<table>
<thead>
<tr>
<th>Keywords</th>
<th>Subject Headings (SH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural language that describes your topic</td>
<td>Also called &quot;controlled vocabulary&quot;</td>
</tr>
<tr>
<td>What you think of as you think of words to search</td>
<td>Words and phrases that are used to &quot;tag&quot; articles in a consistent way</td>
</tr>
<tr>
<td>Searched throughout the document, or the search can be focused on title,</td>
<td>One SH can be used to cover multiple keywords in the form of narrower terms</td>
</tr>
<tr>
<td>author, etc.</td>
<td>Only searches the SH field, not in the full text or title or anywhere else</td>
</tr>
<tr>
<td>Everyone uses different keywords or spellings.</td>
<td>Can be slow to change/update</td>
</tr>
<tr>
<td></td>
<td>Not flexible</td>
</tr>
</tbody>
</table>

Why use Subject Headings?

With the wide variety of vocabulary used to represent concepts in research literature, finding articles about specific concepts can be difficult without the controlled vocabulary of a thesaurus. Controlled vocabulary provides a way of searching for information to ensure that you are seeing all of the relevant literature on your topic, despite the different vocabulary used to describe the same concept.

Using subject headings can give you more control in your search while ensuring you don't miss anything relevant.
1. MeSH is located at the bottom of PubMed’s main page. (Remember to access PubMed through the Libraries to get more access to full-text!)

2. Once on the MeSH search page, enter the term you are interested in into the box and hit search. In this example, we’ll use ‘cancer.’

3. Most searches will result in a results list of multiple Subject Headings (SH). There are a few different ways to proceed from this page.

   You can select a SH of interest for more information and options. (See step 4 of this tutorial.)

   Or, you can select the box next to the SH you want and then either add it to a builder to continue building a search, or select “search PubMed” to immediately search for just that SH.

   Or, if the first SH is the one you want, you can immediately search for it AND the keyword you entered to search.
4. For more information and/or options click on the Subject Heading (SH) of interest.

4a. Each SH has subheadings you can select. Usually you don’t need to select any.

**Neoplasms**

New abnormal growth of tissue. Malignant neoplasms show a greater degree of anaplasia and have the properties of invasion compared to benign neoplasms.

Year introduced: /diagnosis was NEOPLASM DIAGNOSIS 1964-1965

PubMed search builder options

**Subheadings:**

- abnormalities
- administration and dosage
- analysis
- anatomy and histology
- antagonists and inhibitors
- biosynthesis
- blood
- 

- education
- embryology
- enzymology
- epidemiology
- ethnology
- etiology
- genetics
- 

- pathology
- pharmacology
- physiology
- physiopathology
- prevention and control
- psychology
- radiation effects
- 

Below the subheadings are the terms that all result in the SH of interest. (These may be of use as additional keywords!)

**Tree Number(s):** C04

**MeSH Unique ID:** D009369

**Entry Terms:**

- Neoplasia
- Neoplasias
- Neoplasm
- Tumors
- Tumor
- Cancer
- Cancers
- Malignancy
- Malignancies
- Malignant Neoplasms
- Malignant Neoplasm
- Neoplasm, Malignant
- Neoplasms, Malignant
- Benign Neoplasms
- Neoplasms, Benign
- Benign Neoplasm
- Neoplasm, Benign
After the Entry Terms is the MeSH tree which shows you how the Subject Heading is categorized with broader and narrower concepts.

All MeSH Categories

Diseases Category

Neoplasms

Cysts

- Arachnoid Cysts
- Bone Cysts
- Branchioma
- Breast Cyst
- Bronchogenic Cyst
- Chalazion
- Choledochal Cyst
- Colloid Cysts
- Dermoid Cyst
- Epidermal Cyst
- Esophageal Cyst
- Follicular Cyst
- Ganglion Cysts
- Lymphocele
- Mediastinal Cyst
- Mesenteric Cyst
- Mucocoele
- Ovarian Cysts
- Pancreatic Cyst
- Parovarian Cyst
- Pilonidal Sinus
- Ranula
- Synovial Cyst
- Tarlov Cysts
- Thyroglossal Cyst
- Urachal Cyst

Hamartoma

- Hamartoma Syndrome. Multiple
- Pallister-Hall Syndrome
- Tuberous Sclerosis

Click on any SH of interest for its information page and to add it to your search.

Neoplasms by Histologic Type

- Histiocytic Disorders, Malignant
- Leukemia
- Lymphatic Vessel Tumors
- Lymphoma
- Neoplasms. Complex and Mixed
- Neoplasms. Connective and Soft Tissue
- Neoplasms. Germ Cell and Embryonal
- Neoplasms. Glandular and Epithelial
- Neoplasms. Gonadal Tissue
- Neoplasms. Nerve Tissue
- Neoplasms. Plasma Cell
- Neoplasms. Vascular Tissue
- Nevus and Melanomas
- Odontogenic Tumors

Neoplasms by Site

- Abdominal Neoplasms
- Anal Gland Neoplasms
- Bone Neoplasms
- Breast Neoplasms
- Digestive System Neoplasms
- Endocrine Gland Neoplasms
- Eye Neoplasms
- Head and Neck Neoplasms
- Hematologic Neoplasms
- Mammary Neoplasms. Animal
- Nervous System Neoplasms
- Pelvic Neoplasms
- Skin Neoplasms
- Soft Tissue Neoplasms
- Splenic Neoplasms
- Thoracic Neoplasms
- Urogenital Neoplasms
5. **Searching!**
You can build a search of Subject Headings (5a) or do a search of just one (5b).

**Neoplasms**
New abnormal growth of tissue. Malignant neoplasms show a greater degree of anaplasia and have the propensity compared to benign neoplasms.
Year introduced: diagnosis was NEOPLASM DIAGNOSIS 1964-1965
PubMed search builder options
Subheadings:

6. **To build a search of Subject Headings**, repeat steps 2-5a until all the SHs you want are entered.
**Be aware of selecting AND or OR depending on your needs**
In this example, we’re interested in research on comorbidity of cancer and Parkinson’s. After “neoplasms” is in the Search Builder, search for Parkinson’s and then add it to the search builder with AND.

7. **Once all the desired Subject Headings are in the Search Builder with the proper connector** – click on “Search PubMed!”