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.

**Keywords**
- Natural language that describes your topic
- What you think of as you think of words to search
- Searched throughout the document, or the search can be focused on title, author, etc.
- Everyone uses different keywords or spellings.

**Subject Headings (SH)**
- Also called "controlled vocabulary"
- Words and phrases that are used to "tag" articles in a consistent way
- One SH can be used to cover multiple keywords in the form of narrower terms
- Only searches the SH field, not in the full text or title or anywhere else
- Can be slow to change/update
- Not flexible

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.
MeSH = Medical Subject Headings

Medical Subject Headings – MeSH – are the controlled vocabulary used in the National Library of Medicine database Medline, which can be searched through PubMed. This guide covers how to use MeSH in the PubMed interface.

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
- 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
  Mucocele
  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
  Nevi 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
  Spleenic Neoplasms
  Thoracic Neoplasms
  Urogenital Neoplasms
5. Searching!
You can build a search of Subject Headings (5a) or do a search of just one (5b).

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!”