**Controlled Vocabulary**

A controlled vocabulary also known as thesaurus or subject heading is an organized arrangement of words and phrases used to index content and/or to retrieve content of a database through browsing or searching. Thus, the purpose of controlled vocabulary is to organize information and to provide terminology to retrieve information.

The most important functions of a controlled vocabulary are to gather together variant terms and synonyms for concepts and to link concepts in a logical order or sort them into categories.

**MeSH**

MeSH is an acronym for Medical Subject Headings and is the controlled vocabulary (thesaurus) published by the U.S. National Library of Medicine. It is used for providing uniformity and consistency to the indexing of biomedical literature for the MEDLINE database. Also, it helps in retrieving information from the MEDLINE database. The MeSH is arranged in a hierarchical manner called the MeSH Tree Structures and updated annually.

**MeSH Vocabulary includes four types of terms:**

* Headings
* Subheadings
* Supplementary Concept Records
* Publication Types

**Headings** also called "main headings" are constituted of 26,000 concepts found in the biomedical literature.

Examples:

* Body Weight
* Kidney
* Dental Cavity Preparation
* Self Medication
* Radioactive Waste
* Brain Edema

**Subheadings** — (also called qualifiers) are attached to MeSH headings to describe a specific aspect of a concept.

Examples:

* adverse effects
* diagnosis
* metabolism
* therapy

**Supplementary Concept Records** are primarily substance terms, protocols and rare disease terms. These terms are updated weekly.

Examples:

* cordycepin
* valspodar
* tacrolimus binding protein 4
* MOPP protocol
* Snyder Robinson syndrome

**Publication Types** describe the type of publication being indexed; i.e., what the item is, not what the article is about.

Examples:

* Letter
* Review
* Randomized Controlled Trial

**MeSH Tree Structures**

MeSH headings are organized in a "tree" with 16 main branches such as Anatomy, Organisms, Diseases, Chemicals and Drugs, Analytical, Diagnostic and TherapeuticTechniques and Equipment, Psychiatry and Psychology, and Phenomena and Processes.

Each branch has many levels of sub-branches, and each heading has a position in the hierarchy.

* Anatomy
	+ Body Regions
		- Head
			* **Ear**
				+ Ear External
				+ Ear Inner
				+ Ear Middle

Sometimes terms appear in more than one branch of the tree. For example, the term Ear appears under Sense Organs also.

* Anatomy
	+ Sense Organs
		- **Ear**
			* Ear, External
			* Ear, Middle
			* Ear, Inner

The hierarchy allows a MEDLINE/PubMed search of a broader term to include the narrower terms in all branches automatically. This is known as "exploding." For example, a search of ear in PubMed would automatically explode to include records indexed with Ear, External; Ear, Middle; and Ear, Inner, as well as all narrower terms under each of these.