HOW TO SEARCH *Medline*

*Medline* has a subject index, the Thesaurus which uses subject headings called MeSH (Medical Subject Headings). MeSH are terms used to index or describe each reference in *Medline*. Each *Medline* reference on a particular topic is indexed by the same MeSH no matter what terminology has been used by the author(s) in the title and abstract of articles. For example the MeSH ‘Mouth neoplasms’ retrieves the references on all types of oral cancers without you having to know the medical terms for these cancers. MeSH saves you having to type in all the different terms used for mouth cancers.

**Using MeSH**

1. **Click once on the Thesaurus button on the right of the screen** (Fig 7).
   The screen changes to the Thesaurus (Fig. 8).

   ![Figure 8. The Medline Thesaurus screen](image)

   - **AA**
     - Amyloid Filtril Protein AA, see Amyloid Protein AA
     - Amyloid Protein AA
     - Protein AA, see Amyloid Protein AA
   - **AACI**
     - Aaci Endonuclease, see Deoxyribonuclease BamHI

2. **Click once in the ‘Subject’ box then type in the word (or term) you think best describes the major concept of your topic.**
   e.g. mouth
3. **Click on ‘Go to Subject’.**
   In the following example I’ve used the term *mouth neoplasms* (the MeSH for mouth cancers and tumours).
   A screen with a list of subject terms appears.
4 Scroll down the list of MeSH until you find *Mouth Neoplasms* (Fig 9).

![Subject: Mouth Neoplasms](image)

![Figure 9. List of MeSH including Mouth Neoplasms.]

You can click in the box to the left of Mouth Neoplasms ready to search this MeSH, or you can click on the underlined text to see a list of more specific and more general MeSH, and a definition of the MeSH (Fig. 10).

5 **Click on the underlined text** Mouth Neoplasms.

The screen shown in Figure 10 appears.

![Figure 10. Narrower and broader terms associated with the MeSH Mouth Neoplasms.]

**TERM NOTES**: DEFINITION OF TERM. Tumors or cancer of the MOUTH.

TREE NUMBERS:  C4.588.443.591, C7.465.565

**More specific (narrower) terms**:  
- Gingival Neoplasms
- Leukoplakia, Oral
- Lip Neoplasms
- Palatal Neoplasms
- Salivary Gland Neoplasms
- Tongue Neoplasms

**More general (broader) terms**:  
- Head and Neck Neoplasms
- Mouth Diseases
Each MeSH is part of a hierarchical list of subject headings. The more specific MeSH are particular forms of mouth neoplasms. Some of these more specific MeSH have even more specific MeSH associated with them.

6 **Click on Salivary Gland Neoplasms** (Fig. 10).

*Medline* produces a list of specific salivary gland neoplasm MeSH (Fig. 11). The Medical Subject Heading *Parotid Neoplasms* refers to a particular form of salivary gland neoplasm which is itself a particular form of mouth neoplasm.

7 **Click on Cancel** to return to the screen shown in Figure 9.

8 **Click in the box to the left of the term Mouth Neoplasms if you haven’t already done this.**

There should now be a tick mark in the box.

You have two choices for searching at this point, you can click on the ‘*Search Checked Subjects*’ box which will restrict your search to those articles that have the MeSH ‘Mouth Neoplasms’. Alternatively you can click on ‘*Explode Subject*’ which will retrieve not only those articles with the MeSH Mouth Neoplasms but also all those articles with the more specific MeSH such as Salivary Gland Neoplasms and Parotid Neoplasms etc.

9 **Click on Search Checked Subject**

A new page appears that allows you to choose MeSH subheadings to make your search more specific (Fig. 12). The default is to search all of the subheadings. Notice the small button to the left of ‘*Use all topical subheadings*’ is checked.

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**Figure 11.** A list of specific MeSH for salivary gland neoplasms.
10 Click on ‘Search Checked Subjects’.
This will search for all the references indexed by SilverPlatter Medline in 1997 to 1999 with the MeSH Mouth Neoplasms with or without any subheading. Medline shows the first 10 references it finds in brief format. Note that Medline has found 1,280 references with the MeSH Mouth Neoplasms (Fig. 14).

### Exploding Medline Searches

When you explode a Medline search you search not only for those references that have the subject heading you type in as a MeSH, but also all the other more specific MeSH associated with the term. In the search of Mouth Neoplasms these would include Salivary Gland Neoplasms, Tongue Neoplasms, Parotid Neoplasms etc. In other words you get all of the MeSH associated with the topic without having to type them all into Medline.

1. Click on Thesaurus.
2. Type mouth into the Subject box.
3. Click on Go to Subject.
4. Scroll down until you find Mouth Neoplasms.
5. Click in the box to the left of the term.
6. Click on Explode Checked Subjects.

As before the ‘Select Subheadings’ page will appear. If you want all the subheadings make sure ‘Use all topical subheadings’ is checked

7. Click on Explode Checked Subjects
This time Medline finds 2,822 references in the 1997-1999 subset, more than double the 1,280 references found without explosion (Fig. 14).
Using Subheadings in a MeSH Search

1. Repeat steps 1 to 6 in the search above. When the Select Subheadings page appears
2. Click on CHEMISTRY. Notice that WITHOUT SUBHEADINGS loses its highlighting.
3. Scroll down to CONGENITAL.
4. Hold down the Ctrl key while you
5. Click on CONGENITAL. Notice that both subheadings retain their highlighting (Fig. 13).

Figure 13. Selecting subheadings using the Ctrl key.

You can continue to scroll down the list of subheadings to choose others. Remember to hold down the Ctrl key when you click on a new subheading or all of your previously selected subheadings will be lost.

6. Click 'Explode Checked Subjects' to perform the search. This search is restricted to chemical or congenital aspects of mouth neoplasms and its more specific MeSH, and so finds fewer references than the first 2 searches (Fig. 14).
7. Click 'Back to Search' to return to the 'Find' page (Fig. 14).

Figure 14. Results of Thesaurus (Subject) searches.
Notice that the *Medline* program numbers the searches #1, #2, #3 (Fig. 14). These numbers are a useful shorthand when referring to the corresponding searches.

**SUMMARY OF EXPLOSION OF MeSH**

Click on the Thesaurus.
Click in the ‘Subject’ box.
Type in your term.
Click on ‘Go to Subject’.
Scroll to your term if necessary.
Click in the box to the left of your MeSH.
Click on ‘Explode Checked Subjects’.
At Select Subheadings choose *Use all topical subheadings*, or *Use selected subheadings*, and select using Ctrl key.
Click on the ‘Explode Checked Subjects’ box.