



Database Guide: Medline via Ovid

Advanced Search

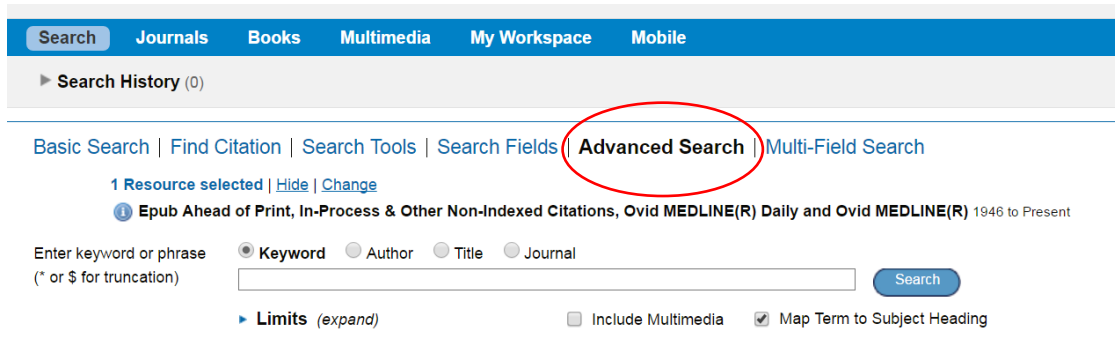
Produced by the U.S. National Library of Medicine (NLM), Medline is a key international database for medical research. In this guide we will be looking at the **Advanced Search** option on Medline via Ovid. There are many different ways you can search Ovid, **Advanced Search** allows you to use the database’s subject headings (also known as MeSH terms) and is the best option for performing a systematic search.

Getting started

Log in to MUSE and from **My services** go to **StarPlus – Library catalogue** and in the search box type ‘Medline’. Click on the **View It** tab and open the first link it gives you called **view full text**. From the new webpage click on the quick link **Connect to MEDLINE via OvidSP** in the box on the right-hand side of the page.



When you get to Medline via Ovid you will automatically be on Basic Search—change this now to **Advanced Search**.



Planning your search

It’s important to think carefully about your search strategy before you start. On **Advanced Search** all terms need to be searched for separately, this means breaking your research question down into key concepts.

For example, imagine you want to find information on the following question;

How effective is speech therapy at treating post-stroke aphasia?

Our key concepts for this question would be;

stroke (AND) aphasia (AND) speech therapy

Searching

Once you've thought about your concepts you're then ready to conduct your search. Begin by typing one of your concepts into the search box;

[Basic Search](#) | [Find Citation](#) | [Search Tools](#) | [Search Fields](#) | **Advanced Search** | [Multi-Field Search](#)

1 Resource selected | [Hide](#) | [Change](#)

Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present

Enter keyword or phrase (* or \$ for truncation) **Keyword** Author Title Journal

Limits (expand) Include Multimedia Map Term to Subject Heading

The box **Map Term to Subject Heading** should automatically be ticked for you—this will allow you to use the database's subject headings (MeSH terms).

When you click search the database will then take you to a new page showing you a list of suggested subject headings.

Select the subject heading which matches your concept - if there is a clear match this will often automatically be highlight for you.

Include All Subheadings
Combine with:

Select	Subject Heading	Explode	Focus	Scope
<input type="checkbox"/>	Heat Stroke	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="i"/>
<input type="checkbox"/>	"National Institute of Neurological Disorders and Stroke"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="i"/>
<input checked="" type="checkbox"/>	Stroke	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="i"/>
<input type="checkbox"/>	Stroke, Lacunar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="i"/>
<input type="checkbox"/>	Stroke Volume	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="i"/>
<input type="checkbox"/>	stroke.mp. search as Keyword			

If there is no suitable subject heading you can search for your concept as a normal keyword - this means searching for an exact match for the word *stroke* in the title, abstract and other fields of the article record.

The **Scope** button provides information about what the subject heading covers and what it should be used for.

What are Subject Headings??

Subject headings are the official terms that make up the database's index. They are a way of searching for topics rather than individual keywords.

For example: Every article about cancer, regardless of what spelling or terminology it's using, will be indexed under the subject heading **Neoplasms**.

Using subject headings therefore reduces the risk of missing relevant articles simply because they are using different terminology.

Once you've selected your subject headings click **Continue >>**

You will then be asked to select some subheadings for your concept. Subheadings are a way of focusing your search. For example in our search we may only be interested in the *Rehabilitation* aspects of stroke.



Subheadings for: **Stroke**

Combine with: **OR**

Include All Subheadings (94697)

-- or choose one or more of these subheadings --

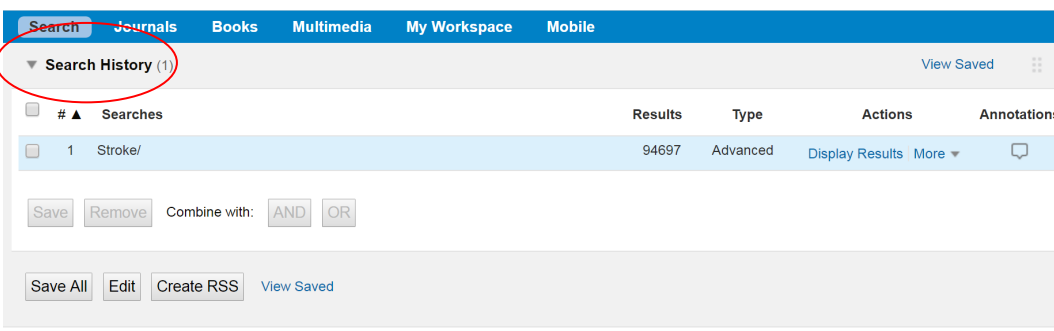
- /bl - Blood (4279)
- /cf - Cerebrospinal Fluid (118)
- /ci - Chemically Induced (1263)
- /cl - Classification (1321)
- /co - Complications (15372)
- /cn - Congenital (32)
- /mi - Microbiology (147)
- /mo - Mortality (7472)
- /nu - Nursing (1013)
- /ps - Parasitology (13)
- /pa - Pathology (8609)

You can select as many subheadings as you wish. In most cases you will simply wish to include everything - to do this tick **Include All Subheadings**.

For a systematic search it is generally advised against using subheadings. However they can be useful if you are getting thousands of irrelevant results. They are also particularly useful for when you just wish to browse articles within a focused clinical area.

Once you've selected your subheadings click **Continue >>**

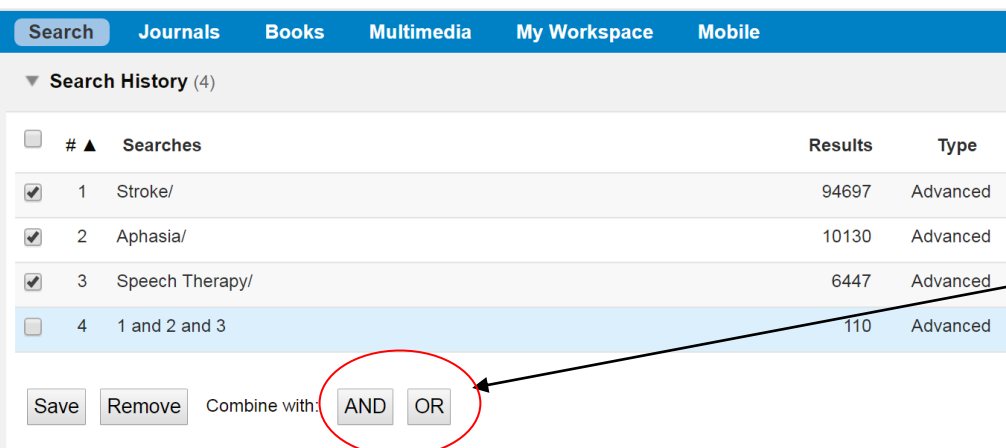
All your results for stroke will then be displayed. Click on **Search History** at the top of the screen to see exactly how many articles have been retrieved.



[Basic Search](#) | [Find Citation](#) | [Search Tools](#) | [Search Fields](#) | [Advanced Search](#) | [Multi-Field Search](#)

Next steps

Once you've conducted a search for your first concept you then need to go through exactly the same process again for all you other concepts. The aim is end up with all the relevant terms listed in your search history. You can then combine them together to achieve a final set of results.



Tick the searches you wish to combine and then the **AND / OR** buttons will appear. To find articles containing all of your terms select **AND**.

Advanced techniques - Explode and Focus

When selecting your subject headings you also have the option to **Explode** or **Focus** the subject heading.

Include All Subheadings
Combine with:

Select	Subject Heading	Explode	Focus	Scope
<input type="checkbox"/>	Heat Stroke	<input type="checkbox"/>	<input type="checkbox"/>	i
<input type="checkbox"/>	"National Institute of Neurological Disorders and Stroke"	<input type="checkbox"/>	<input type="checkbox"/>	i
<input checked="" type="checkbox"/>	Stroke	<input type="checkbox"/>	<input type="checkbox"/>	i
<input type="checkbox"/>	Stroke, Lacunar	<input type="checkbox"/>	<input type="checkbox"/>	i
<input type="checkbox"/>	Stroke Volume	<input type="checkbox"/>	<input type="checkbox"/>	i
<input type="checkbox"/>	stroke.mp. search as Keyword			

Explode means you will search for the subject heading you've selected plus any narrower terms which come underneath it in the index. If you click on the subject heading itself you can see what these narrower terms will be.

[+]	<input type="checkbox"/>	Intracranial Embolism and Thrombosis	10439	<input type="checkbox"/>	<input type="checkbox"/>	i
[+]	<input type="checkbox"/>	Intracranial Hemorrhages	6003	<input type="checkbox"/>	<input type="checkbox"/>	i
	<input type="checkbox"/>	Leukomalacia, Periventricular	1556	<input type="checkbox"/>	<input type="checkbox"/>	i
	<input type="checkbox"/>	Sneddon Syndrome	186	<input type="checkbox"/>	<input type="checkbox"/>	i
[-]	<input checked="" type="checkbox"/>	Stroke	94726	<input checked="" type="checkbox"/>	<input type="checkbox"/>	i
[+]	<input type="checkbox"/>	Brain Infarction	4500	<input type="checkbox"/>	<input type="checkbox"/>	i
	<input type="checkbox"/>	Stroke, Lacunar	473	<input type="checkbox"/>	<input type="checkbox"/>	i
	<input type="checkbox"/>	Susac Syndrome	131	<input type="checkbox"/>	<input type="checkbox"/>	i
	<input type="checkbox"/>	Vascular Headaches	1381	<input type="checkbox"/>	<input type="checkbox"/>	i
[+]	<input type="checkbox"/>	Vasculitis, Central Nervous System	1004	<input type="checkbox"/>	<input type="checkbox"/>	i

Focus means that you will only retrieve articles where the subject heading you've selected is listed as the main focus of the article. This means you will get less but more relevant results.

For a systematic search it is often good practice to select **explode** and ignore **focus**.

Free-text searching

Using the subject headings is a good way to conduct an advanced search on Medline, however for a really comprehensive search you also need to supplement your search with some free-text terms. This means searching for keywords in the title, abstract and other fields of an article's record. The reasons for adding free-text terms to your search are;

1. Not all articles in Medline are indexed with subject headings (particularly the most recent publications). If you only search with subject headings you will miss these potentially relevant articles.
2. Searching for both subject headings and free-text demonstrates a rigorous, all bases covered approach to a search - particularly important if you are conducting a systematic review.

To add free-text terms to your search simply tick **search as Keyword** at the bottom of the list of subject headings. You can select both the subject heading and free-text term at the same time or select the free-text term on its own. *Note:* If you select both terms at the same time you will not have the option of selecting subheading on the following page.

Include All Subheadings
Combine with:

Select	Subject Heading	Explode	Focus	Scope
<input type="checkbox"/>	Heat Stroke	<input type="checkbox"/>	<input type="checkbox"/>	i
<input type="checkbox"/>	"National Institute of Neurological Disorders and Stroke"	<input type="checkbox"/>	<input type="checkbox"/>	i
<input checked="" type="checkbox"/>	Stroke	<input type="checkbox"/>	<input type="checkbox"/>	i
<input type="checkbox"/>	Stroke, Lacunar	<input type="checkbox"/>	<input type="checkbox"/>	i
<input type="checkbox"/>	Stroke Volume	<input type="checkbox"/>	<input type="checkbox"/>	i
<input checked="" type="checkbox"/>	stroke.mp. search as Keyword			

Alternatively you can untick the box **Map Term to Subject Heading** on the main search page.

Separate free-text and subject heading searches can then be combined in the search history with **OR**.

The screenshot shows a search history table with two entries:

#	Searches	Results	Type	Actions	Annotations
1	Stroke/	94726	Advanced	Display Results More	i
2	stroke.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]	266809	Advanced	Display Results More	i

Below the table, the 'Combine with:' dropdown is set to 'OR'. A callout box points to the 'OR' option.

[Basic Search](#) | [Find Citation](#) | [Search Tools](#) | [Search Fields](#) | **[Advanced Search](#)** | [Multi-Field Search](#)

1 Resource selected | [Hide](#) | [Change](#)

[Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE\(R\) Daily and Ovid MEDLINE\(R\) 1946 to Present](#)

Enter keyword or phrase (* or \$ for truncation)
 Keyword Author Title Journal

[Limits \(expand\)](#)

Include Multimedia

Map Term to Subject Heading

Untick **Map Term to Subject Heading**.

Advanced techniques for free-text searching

When using free-text terms there are some tricks you can use to make your searching quicker and more precise.

* truncates words e.g. Parkinson* will search for Parkinson, Parkinson's and Parkinsonism

is a wildcard and searches for variable single characters e.g. wom#n searches for woman and women

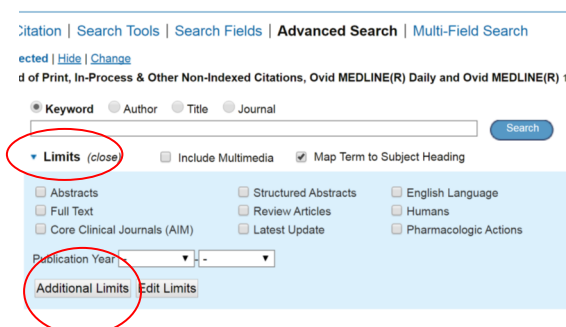
? is another wildcard which searches for a single character or no character at all. This is useful for some British/American spelling differences e.g. p?ediatrics retrieves both paediatrics and pediatrics.

ADJ allows you to specify how close you want your words to appear together. This can help you to improve the relevancy of your results. E.g. nurse ADJ3 handwashing will retrieve articles where the words nurse and handwashing appearing within 3 words of each other.

Applying limits to your search

Applying limits helps you to focus your search. For example you may only want to find clinical trials published in English, in the last 5 years. You can set some of these limits before you search or to see the full range of limits available apply them after right at the end after you've combined all your searches together.

Click on **Limits** under the search box and then **Additional Limits**.



Additional Limits will show you the full range of limits available including age group, gender and publication type. Once you've made your selection simply click **Limit a Search** at the bottom of the page.

The limits will automatically be applied to the last search you carried out or you can select any search from your search history at the top of the page.

Finding the full-text

Most records in Medline will only give you the basic information of the published research. To read the full-text you need to check to see if the library has a subscription to the journal the article is published in.

To do this click on the purple **Find It** links. These will bounce you back to our library catalogue and check for access.

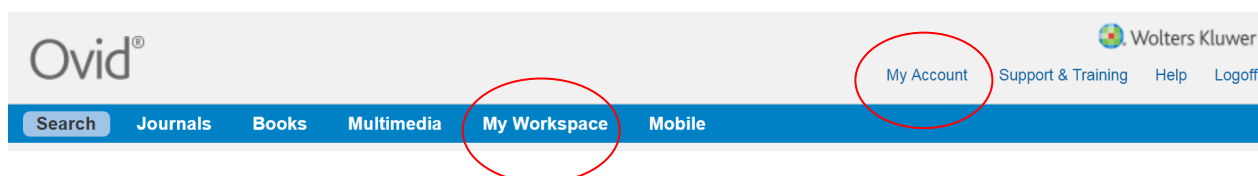


Managing your results

Once you've conducted a search there are lots of options for organising and managing your results. You can re-sort your results, print out or email a list of your results and export your results to a reference management software such as EndNote.

You can also create a personal account on the Ovid platform. This will allow you to save your search history, set up auto-alerts for new articles and create project folders. To register simply click **My Account** at the top of the screen and **Create Account**. Use your Sheffield email address when registering.

Once you've created your account everything you save will be accessible from **My Workspace**.



Further help and support

Visit the Library's Information Skills Resource for tutorials on literature searching, referencing and more.

<http://www.librarydevelopment.group.shef.ac.uk/>

If you have any questions contact the Library helpdesk;

<http://libraryhelp.shef.ac.uk/>

Or for specialist support speak to your Liaison Librarian for Medicine, Dentistry and Health;

<http://www.sheffield.ac.uk/library/liaison/med>

Example Search Strategy

There's no single right way to do a search - it all depends on your research question. However a good search is one that gets the right balance between precision and recall. Where this balance lies depends on your aim at the time (e.g. whether you are doing a systematic review or just want to find a few highly relevant articles).

Below is an example of a search for our research question;

How effective is speech therapy at treating post-stroke aphasia?

▼ Search History (12) View Sa					
# ▲	Searches	Results	Type	Actions	Annotations
1	exp Stroke/	129084	Advanced	Display Results More ▼	
2	stroke*.mp.	273130	Advanced	Display Results More ▼	
3	1 or 2	295566	Advanced	Display Results More ▼	
4	exp Aphasia/	12269	Advanced	Display Results More ▼	
5	aphasi*.mp.	18083	Advanced	Display Results More ▼	
6	Speech Disorders/	11516	Advanced	Display Results More ▼	
7	4 or 5 or 6	28949	Advanced	Display Results More ▼	
8	exp Speech Therapy/	6447	Advanced	Display Results More ▼	
9	(speech adj3 therap*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]	9562	Advanced	Display Results More ▼	
10	8 or 9	9562	Advanced	Display Results More ▼	
11	3 and 7 and 10	401	Advanced	Display Results More ▼	
12	limit 11 to (english language and last 10 years)	240	Advanced	Display Results More ▼	