



Searching in Medline (Ovid)

Medline is a database that contains medical, nursing, and preclinical science literature. Medline is searched using a combination of subject headings and keywords. It is strongly recommended that you search other databases in addition to Medline when conducting research.

Access Medline through the [Medicine and Public Health database list](#).

Keywords and subject headings

Literature in Medline can be found using both keywords and subject headings. **Keywords** find a term in an article record (not the full text), while **subject headings** find articles about a topic. Subject headings in Medline are called **MeSH** (Medical Subject Headings) terms. It is recommended to use both keywords and MeSH terms when searching in Medline.

Keywords	MeSH
Find an exact phrase in the title, abstract, etc. of an article	Find articles about a concept
Not arranged in any order	Arranged in a hierarchy, with broad terms at the top and specific terms at the bottom. Articles are given the most relevant subject headings possible
Need to search for all variations of a term (e.g. plurals, spelling variations) and alternate terms to make a search comprehensive	Automatically include variations of terms
Searching multiple keywords can be time consuming	Quick and easy to use
Good for finding emerging research about concepts that have not been assigned subject headings yet	Aren't always up to date; may not be discipline-specific
Use natural language	Use discipline specific jargon

Using Medline

Medline searches are conducted line-by-line, with each concept searched separately and then combined with Boolean operators (AND and OR). The search history appears at the top of the page, followed by the search box. Articles found in a search appear at the bottom of the page.

The following searches aim to find an article comparing two tools used to diagnose amyotrophic lateral sclerosis (ALS) - diffusion tensor imaging and magnetic resonance spectroscopy. These terms should be searched separately to ensure you get the more relevant results.

To start searching in Medline, type your first keyword into the search box. Make sure the **'Map Term to Subject Heading'** box is checked - this will tell the database to automatically search for a matching MeSH term to use.

Advanced Search | Basic Search | Find Citation | Search Tools | Search Fields | Multi-Field Search

1 Resource selected | Hide | Change

Ovid MEDLINE(R) ALL 1946 to August 18, 2020

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

amyotrophic lateral sclerosis

Limits (close) Include Multimedia Map Term to Subject Heading

Abstracts Structured Abstracts English Language
 No Language Specified Evidence Based Medicine Reviews Article Reviews (ACP Journal Club)
 Review Articles Article Reviews (DARE) Humans
 Topic Reviews (Cochrane) Core Clinical Journals (AIM) Latest Update
 Pharmacologic Actions COVID-19

Publication Year - -

The next page contains a list of subject headings. In the example below, [Amyotrophic Lateral Sclerosis](#) is the subject heading and amyotrophic lateral sclerosis.mp is the keyword.

Your term mapped to the following Subject Headings:

Click on a subject heading to view more general and more specific terms within the tree.

Term is a thesaurus term

Include All Subheadings

Combine with:

Select	Subject Heading	Explode	Focus	Scope
<input checked="" type="checkbox"/>	Amyotrophic Lateral Sclerosis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="i"/>
<input type="checkbox"/>	amyotrophic lateral sclerosis.mp. search as Keyword			

Before selecting a subject heading, click the 'Scope' icon (). This will give you the definition of the term to ensure you're using it correctly. Don't use a term if it's not relevant - use another one instead.

Click on the subject heading to see where it falls in the hierarchy. This will show you if there's a more specific term you could be using instead.

Clicking this heading shows that [Amyotrophic Lateral Sclerosis](#) appears under [Nervous System Diseases](#) → [Central Nervous System Diseases](#) → [Spinal Cord Diseases](#) in the MeSH tree, and appears at the same level as [Epidural Abscess](#), [Muscular Atrophy, Spinal](#), and [Spinal Cord Neoplasms](#). To include all the headings under [Spinal Cord Diseases](#), click the 'Explode' box to the right of the heading.

[-]	<input type="checkbox"/>	Nervous System Diseases	43892	<input type="checkbox"/>	
	[+]	<input type="checkbox"/>	Autoimmune Diseases of the Nervous System	1204	<input type="checkbox"/>
	[+]	<input type="checkbox"/>	Autonomic Nervous System Diseases	9493	<input type="checkbox"/>
[-]	<input type="checkbox"/>	Central Nervous System Diseases	17631	<input type="checkbox"/>	
	[+]	<input type="checkbox"/>	Brain Diseases	54261	<input type="checkbox"/>
	[+]	<input type="checkbox"/>	Central Nervous System Infections	1254	<input type="checkbox"/>
	[+]	<input type="checkbox"/>	Encephalomyelitis	4087	<input type="checkbox"/>
		<input type="checkbox"/>	High Pressure Neurological Syndrome	150	<input type="checkbox"/>
		<input type="checkbox"/>	Hyperekplexia	30	<input type="checkbox"/>
	[+]	<input type="checkbox"/>	Meningitis	19146	<input type="checkbox"/>
	[+]	<input type="checkbox"/>	Movement Disorders	15928	<input type="checkbox"/>
	[+]	<input type="checkbox"/>	Ocular Motility Disorders	3834	<input type="checkbox"/>
		<input type="checkbox"/>	Pneumocephalus	1466	<input type="checkbox"/>
[-]	<input type="checkbox"/>	Spinal Cord Diseases	12574	<input type="checkbox"/>	
	<input checked="" type="checkbox"/>	Amyotrophic Lateral Sclerosis	18941	<input type="checkbox"/>	

If Medline does not recommend any relevant subject headings, or if it recommends you a subject heading from one of your other search concepts, don't select any.

Click 'Continue' to move to the next step. This will show the 'subheadings' assigned to the subject heading you have selected - these show all the different ways the subject heading can be used. While some articles are assigned specific subheadings, it's best to include all of them to ensure you don't exclude any potentially relevant results. To do this, click '**Include All Subheadings**'.

Subheadings for: **Amyotrophic Lateral Sclerosis**

Combine with:

Include All Subheadings (18941)

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

- | | |
|--|--|
| <input type="checkbox"/> /bl - Blood (636) | <input type="checkbox"/> /lj - Legislation & Jurisprudence (1) |
| <input type="checkbox"/> /cf - Cerebrospinal Fluid (412) | <input type="checkbox"/> /me - Metabolism (3496) |
| <input type="checkbox"/> /ci - Chemically Induced (175) | <input type="checkbox"/> /mi - Microbiology (82) |
| <input type="checkbox"/> /cl - Classification (180) | <input type="checkbox"/> /mo - Mortality (790) |
| <input type="checkbox"/> /co - Complications (1928) | <input type="checkbox"/> /nu - Nursing (200) |
| <input type="checkbox"/> /cn - Congenital (8) | <input type="checkbox"/> /pa - Pathology (4542) |
| <input type="checkbox"/> /di - Diagnosis (2543) | <input type="checkbox"/> /ph - Physiology (3) |
| <input type="checkbox"/> /dg - Diagnostic Imaging (404) | <input type="checkbox"/> /pp - Physiopathology (3925) |
| <input type="checkbox"/> /dh - Diet Therapy (45) | <input type="checkbox"/> /pc - Prevention & Control (92) |
| <input type="checkbox"/> /dt - Drug Therapy (1667) | <input type="checkbox"/> /px - Psychology (968) |
| <input type="checkbox"/> /ec - Economics (74) | <input type="checkbox"/> /rt - Radiotherapy (7) |
| <input type="checkbox"/> /em - Embryology (4) | <input type="checkbox"/> /rh - Rehabilitation (244) |

This will add the subject heading to your search history.

▼ Search History (1) View Saved

<input type="checkbox"/>	# ▲	Searches	Results	Type	Actions	Annotations
<input type="checkbox"/>	1	Amyotrophic Lateral Sclerosis/	18941	Advanced	Display Results More ▼	

Combine with:

[View Saved](#)

To search for 'amyotrophic lateral sclerosis' as a keyword, search for it again. Instead of selecting the subject heading, click the box next to 'amyotrophic lateral sclerosis.mp. search as Keyword' and click 'Continue'.

Your term mapped to the following Subject Headings:

Click on a subject heading to view more general and more specific terms within the tree.

Term is a thesaurus term

Include All Subheadings

Combine with: ▼

Select	Subject Heading	Explode	Focus	Scope
<input checked="" type="checkbox"/>	Amyotrophic Lateral Sclerosis	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	amyotrophic lateral sclerosis.mp. search as Keyword			

The search history below contains both a subject heading (Amyotrophic Lateral Sclerosis/) and a keyword (amyotrophic lateral sclerosis.mp.).

<input type="checkbox"/>	1	Amyotrophic Lateral Sclerosis/	18941
<input type="checkbox"/>	2	amyotrophic lateral sclerosis.mp.	27712

Search for all possible synonyms for each concept, then check the boxes next to them.

▼ Search History (5)

<input type="checkbox"/>	# ▲	Searches	Results	Type	Actions	Annotations
<input checked="" type="checkbox"/>	1	Amyotrophic Lateral Sclerosis/	18941	Advanced	Display Results More ▼	
<input checked="" type="checkbox"/>	2	amyotrophic lateral sclerosis.mp.	27712	Advanced	Display Results More ▼	
<input checked="" type="checkbox"/>	3	lou gehrig* disease.mp.	215	Advanced	Display Results More ▼	
<input checked="" type="checkbox"/>	4	charcot disease.mp.	27	Advanced	Display Results More ▼	
<input checked="" type="checkbox"/>	5	ALS.mp.	56339	Advanced	Display Results More ▼	

Combine with:

Click OR to search for all the terms at once. This will create the following line:

<input type="checkbox"/> 6	1 or 2 or 3 or 4 or 5	67107
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Repeat this process for all of your search concepts, then combine each OR line with AND. Below is the completed search history for this question. Lines 6, 10, and 14 are combinations of each concept. Line 15 searches these combinations to find all articles that include a search term from each concept.

<input type="checkbox"/>	1	Amyotrophic Lateral Sclerosis/	18941
<input type="checkbox"/>	2	amyotrophic lateral sclerosis.mp.	27712
<input type="checkbox"/>	3	lou gehrig* disease.mp.	215
<input type="checkbox"/>	4	charcot disease.mp.	27
<input type="checkbox"/>	5	ALS.mp.	56339
<input type="checkbox"/>	6	1 or 2 or 3 or 4 or 5	67107
<input type="checkbox"/>	7	Diffusion Tensor Imaging/	9534
<input type="checkbox"/>	8	diffusion tensor imag*.mp.	16934
<input type="checkbox"/>	9	diffusion tractograph*.mp.	410
<input type="checkbox"/>	10	7 or 8 or 9	17092
<input type="checkbox"/>	11	Magnetic Resonance Spectroscopy/	148903
<input type="checkbox"/>	12	magnetic resonance spectroscop*.mp.	162936
<input type="checkbox"/>	13	mr spectroscop*.mp.	5400
<input type="checkbox"/>	14	11 or 12 or 13	164226
<input type="checkbox"/>	15	6 and 10 and 14	28

If you need to add limits to your search, click the 'Additional Limits' button under the search box and add as appropriate.

Search syntax are operators that can be added to a database search to alter the way it uses keywords. Syntax cannot be applied to MeSH terms. The table below contains the advanced search syntax that can be incorporated into a Medline search to improve its accuracy and increase the number of results.

Note: in this guide, *n* stands for a number, not the letter n. To use these operators, replace the *n* with the number of letters or numbers you'd like in between terms.

Syntax	Symbol	Example	Function
Truncation	*	depress*	Finds 'alternate endings' to a word
Mandated wildcard	#	wom#n	Replaces 1 letter

Optional wildcard	?	p?ediatric	Replaces 0-1 letters
Nesting	(...)	behavio?r AND (depression OR anxiety)	Group similar terms in a search
Proximity	adjn	disturb* adj3 sleep	Find a word within a specified number of words (in any order)
Nested proximity	(a or b) adjn (c or d)	(breast or skin) adj3 (cancer* OR neoplasm* OR tumo?r* OR malignan*)	Finds terms combined with OR within a specified number of words from another group of terms combined with OR

For more information, contact your **Academic Liaison Librarian**.

→ bit.ly/AcademicLibrarian