

## Searching in Embase (Ovid)

**Embase** is a biomedical and pharmacological database that contains articles from more than 8,500 journals. The Library subscribes to both **Embase** and **Embase Classic**, which contains articles published between 1947 and 1973. Both databases can be searched at the same time. Embase is searched using a combination of subject headings (called **EMTREE subject headings**) and keywords. It is strongly recommended that you search other databases in addition to Embase when conducting research.

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

### Keywords and subject headings

Literature in Embase 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. It is recommended to use both keywords and subject headings when searching in Embase.

<b>Keywords</b>	<b>EMTREE</b>
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 medical/health jargon

### Using Embase

Embase 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 drugs, tacrolimus and cyclosporine, to see which is the most effective in preventing graft rejection in kidney transplant patients. These terms should be searched separately to ensure you get the more relevant results.

To start searching in Embase, 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 Emtree term to use.

The screenshot shows the Embase search interface. At the top, there are navigation links: **Advanced Search** | Basic Search | Find Citation | Search Tools | Search Fields | Multi-Field Search. Below this, it indicates **2 Resources selected** with links for [Hide](#) and [Change](#). The search criteria are set to **Embase Classic** (1947 to 1973) and **Embase** (1974 to 2018 August 31). The search type is **Keyword**, and the search term is **kidney transplantation**. The **Map Term to Subject Heading** option is checked. Under the **Limits** section, options for Full Text, Human, Latest Update, Cochrane Library, Abstracts, and English Language are visible. There are also dropdown menus for Publication Year, Status, and NLM Status. Buttons for **Additional Limits** and **Edit Limits** are at the bottom of the limits section.

The next page contains a list of subject headings. In the example below, [kidney transplantation](#) is the subject heading and kidney transplantation.mp is the keyword.

The screenshot shows the 'Your term mapped to the following Subject Headings' section. It includes instructions: 'Click on a subject heading to view more general and more specific terms within the thesaurus. Term is a thesaurus term'. There is a checkbox for **Include All Subheadings** and a 'Combine with:' dropdown set to **OR**. A **Continue** button is present. Below this is a table with columns: **Select**, **Subject Heading**, **Explode**, **Focus**, and **Scope**.

Select	Subject Heading	Explode	Focus	Scope
<input checked="" type="checkbox"/>	<a href="#">kidney transplantation</a>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	kidney transplantation.mp. <i>search as Keyword</i>			

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.

The screenshot below is the hierarchy for the subject heading ['kidney transplantation'](#). [Used For] functions similarly to the 'Scope' of the subject heading by indicating synonyms for the term. [Broader Terms] refers to the terms *above* ['kidney transplantation'](#) in the Emtree hierarchy, and [Narrower Terms] refers to headings *underneath* ['kidney transplantation'](#). Terms with [+NT] indicate a parent heading with further terms underneath it.

<input checked="" type="checkbox"/>	<b>kidney transplantation</b>	112551
	[Used For]	
	<a href="#">kidney allograft transplantation</a>	
	<a href="#">kidney allotransplantation</a>	
	<a href="#">kidney cadaver transplantation</a>	
	<a href="#">kidney grafting</a>	
	<a href="#">kidney homotransplantation</a>	
	<a href="#">kidney retransplantation</a>	
	<a href="#">renal homotransplantation</a>	
	<a href="#">renal transplantation</a>	
	<a href="#">second set kidney transplantation</a>	
	<a href="#">transplantation, kidney</a>	
	[Broader Terms]	
<input type="checkbox"/>	<a href="#">kidney surgery</a>	3597
<input type="checkbox"/>	<a href="#">organ transplantation</a>	34876
	[Narrower Terms]	
<input type="checkbox"/>	<a href="#">cadaver kidney</a>	3893
<input type="checkbox"/>	<a href="#">kidney allograft</a>	12647
<input type="checkbox"/>	<a href="#">kidney autotransplantation</a>	704
<input type="checkbox"/>	<a href="#">kidney graft</a>	37083
<input type="checkbox"/>	<a href="#">kidney pancreas transplantation</a>	1923

If Embase 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 or select the keyword instead.

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: **kidney transplantation**

Combine with:

**Include All Subheadings (111461)**  
-- or choose one or more of these subheadings --

<input type="checkbox"/> /ae - Adverse Drug Reaction (1849)	<input type="checkbox"/> /rh - Rehabilitation (66)
<input type="checkbox"/> /co - Complication (1)	<input type="checkbox"/> /su - Surgery (2)
<input type="checkbox"/> /ep - Epidemiology (2)	<input type="checkbox"/> /th - Therapy (1)

This will add the subject heading to your search history.

▼ Search History (1)

# ▲	Searches	Results	Type	Actions	Annotations
1	▶ kidney transplantation/	111461	Advanced	Display Results More ▾	

Combine with:

To search for 'kidney transplant' as a keyword, search for it again. In this search, we'll add an asterisk (\*) to the end of the term. This is a truncator, and will find alternate endings (e.g. transplants, transplantation). Instead of selecting the subject heading, click the box next to kidney transplant\*.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 thesaurus.  
 Term has been mapped to 'cyclosporine' ....

Include All Subheadings  
 Combine with:

Select	Subject Heading	Explode	Focus	Scope
<input type="checkbox"/>	<a href="#">kidney transplantation</a>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<a href="#">kidney graft</a>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<a href="#">kidney graft rejection</a>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<a href="#">transplantation</a>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<a href="#">graft recipient</a>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<a href="#">patient</a>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<a href="#">cyclosporin A</a>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<a href="#">recipient</a>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<a href="#">immunosuppressive treatment</a>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<a href="#">tacrolimus</a>	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	kidney transplant*.mp. <i>search as Keyword</i>			

The search history below contains two subject headings (kidney transplantation/ and kidney graft/) and a keyword (kidney transplant\*.mp.).

<input type="checkbox"/>	1	▶ kidney transplantation/	111461	Advanced	Display Results More ▾	
<input type="checkbox"/>	2	▶ kidney graft/	36090	Advanced	Display Results More ▾	
<input type="checkbox"/>	3	▶ kidney transplant*.mp.	130185	Advanced	Display Results More ▾	

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

▼ Search History (6)

<input type="checkbox"/>	# ▲	Searches	Results	Type	Actions	Annotations
<input checked="" type="checkbox"/>	1	▶ kidney transplantation/	111461	Advanced	<a href="#">Display Results</a> <a href="#">More ▼</a>	
<input checked="" type="checkbox"/>	2	▶ kidney graft/	36090	Advanced	<a href="#">Display Results</a> <a href="#">More ▼</a>	
<input checked="" type="checkbox"/>	3	▶ kidney transplant*.mp.	130185	Advanced	<a href="#">Display Results</a> <a href="#">More ▼</a>	
<input checked="" type="checkbox"/>	4	▶ kidney graft*.mp.	51371	Advanced	<a href="#">Display Results</a> <a href="#">More ▼</a>	
<input checked="" type="checkbox"/>	5	▶ renal transplant*.mp.	63994	Advanced	<a href="#">Display Results</a> <a href="#">More ▼</a>	
<input checked="" type="checkbox"/>	6	▶ renal graft*.mp.	6104	Advanced	<a href="#">Display Results</a> <a href="#">More ▼</a>	

Combine with:

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

<input type="checkbox"/>	7	▶ 1 or 2 or 3 or 4 or 5 or 6	149293
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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 7, 10, 15, and 18 are combinations of each concept. Line 19 searches these combinations to find all articles that include a search term from each concept.

1	▶ kidney transplantation/	111461
2	▶ kidney graft/	36090
3	▶ kidney transplant*.mp.	130185
4	▶ kidney graft*.mp.	51371
5	▶ renal transplant*.mp.	63994
6	▶ renal graft*.mp.	6104
7	▶ 1 or 2 or 3 or 4 or 5 or 6	149293
8	▶ tacrolimus/	70938
9	▶ tacrolimus.mp.	72700
10	▶ fk 506.mp.	12735
11	▶ 8 or 9 or 10	75090

12	▶ cyclosporine/	3138
13	▶ cyclosporine.mp.	44318
14	▶ ciclosporin.mp.	3326
15	▶ 12 or 13 or 14	47265
16	▶ kidney graft rejection/	14918
17	▶ reject*.mp.	198224
18	▶ 16 or 17	198224
19	▶ 7 and 11 and 15 and 18	2409

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

The table below contains the advanced search syntax that can be incorporated into a Embase search to improve its accuracy and increase the number of results.

**Note:** in this table, *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	<b>adjn</b>	disturb* adj3 sleep	Find a word within a specified number of words (in any order)
Nested proximity	<b>(a or b) adjn (c or d)</b>	(breast OR skin) adj3 (cancer* OR neoplasm* OR tumo?r* OR malignan*)	Find terms combined with OR within a specified number of words from another group of words combined with OR

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