# Searching in Embase (Ovid)

**Embase** is a biomedical and pharmacological database that contains articles from more than 8,500 journals. Embase is searched using a combination of subject headings (called **EMTREE subject headings**) and keywords.

Embase searches are conducted line-by-line, with each concept searched separately and then combined with Boolean operators (AND and OR).

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.

1. 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.



2. 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.



3. 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.

4. 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.

5. The screenshot below is the hierarchy for the subject heading 'kidney transplantation'. If Embase does not recommend any relevant subject headings, don't select any or select the keyword instead.

| ☑ kidney transplantation | | 136478 |
|---|---|---|
| [Used For] | | |
| | *kidney allograft transplantation* | |
| | *kidney allotransplantation* | |
| | *kidney cadaver transplantation* | |
| | *kidney grafting* | |
| | *kidney homotransplantation* | |
| | *kidney retransplantation* | |
| | *renal homotransplantation* | |
| | *renal transplantation* | |
| | *second set kidney transplantation* | |
| | *transplantation, kidney* | |
| [Broader Terms] | | |
| ☐ | kidney surgery | 4760 |
| ☐ | organ transplantation | 41947 |
| [Narrower Terms] | | |
| ☐ | cadaver kidney | 3990 |
| ☐ | kidney allograft | 15584 |
| ☐ | kidney autotransplantation | 872 |
| ☐ | kidney graft | 56952 |
| ☐ | kidney pancreas transplantation | 2713 |

6. Click 'Continue' to move to the next step. This will show the 'subheadings' assigned to the subject heading you have selected. 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:**

| OR ∨ | | **Continue** |

☐ Include All Subheadings (136478)
or choose one or more of these subheadings

ⓘ ☐ /ae - Adverse Drug Reaction (1850)    ⓘ ☐ /ep - Epidemiology (2)    ⓘ ☐ /su - Surgery (2)

ⓘ ☐ /co - Complication (1)    ⓘ ☐ /rh - Rehabilitation (66)    ⓘ ☐ /th - Therapy (1)

The subject heading will now be added to your search history.

| Search History (1) ∧ | | | | | | View Saved ✛ |
|---|---|---|---|---|---|---|
| ☐ | # ▲ Searches | Results | Type | Actions | | Annotations |
| ☐ 1 ∨ | kidney transplantation/ | 136478 | Advanced | Display Results    More ∨ | | 💬 |

| Save | Remove | Combine with: | AND | OR | Deduplicate |

**Now, we'll search for our concept as a keyword.**

1. 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. transplant**s**, transplant**ation**). Instead of selecting the subject heading, click the box next to kidney transplant*.mp. *search as Keyword'* and click **'Continue'**

| Select | Subject Heading | Explode | Focus | Scope |
|---|---|---|---|---|
| ☐ | kidney graft | ☐ | ☐ | ⓘ |
| ☐ | human | ☐ | ☐ | ⓘ |
| ☐ | kidney transplantation | ☐ | ☐ | ⓘ |
| ☐ | adult | ☐ | ☐ | ⓘ |
| ☐ | female | ☐ | ☐ | ⓘ |
| ☐ | male | ☐ | ☐ | ⓘ |
| ☐ | controlled study | ☐ | ☐ | ⓘ |
| ☐ | graft recipient | ☐ | ☐ | ⓘ |
| ☐ | cyclosporin A | ☐ | ☐ | ⓘ |
| ☐ | transplantation | ☐ | ☐ | ⓘ |
| ☐ | kidney transplant*.mp. *search as Keyword* | | | |

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

| | # ▲ | Searches | Results | Type | Actions | | Annotations |
|---|---|---|---|---|---|---|---|
| ☐ | 1 | ∨ kidney transplantation/ | 136478 | Advanced | Display Results | More ∨ | 💬 |
| ☐ | 2 | ∨ kidney transplant*.mp. | 171612 | Advanced | Display Results | More ∨ | 💬 |
| ☐ | 3 | ∨ kidney graft/ | 56952 | Advanced | Display Results | More ∨ | 💬 |
| ☐ | 4 | ∨ kidney graft*.mp. | 74766 | Advanced | Display Results | More ∨ | 💬 |
| ☐ | 5 | ∨ renal transplant*.mp. | 77276 | Advanced | Display Results | More ∨ | 💬 |
| ☐ | 6 | ∨ renal graft*.mp. | 7653 | Advanced | Display Results | More ∨ | 💬 |

Search History (6) ∧    View Saved ⊕

Save  Remove  Combine with: AND  OR    Deduplicate    ⌃ Contract

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

| ☐ | 7 | ∨ 1 or 2 or 3 or 4 or 5 or 6 | 196875 |
|---|---|---|---|

4. 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/ | 136478 |
|---|---|---|---|
| ☐ | 2 | ∨ kidney transplant*.mp. | 171612 |
| ☐ | 3 | ∨ kidney graft/ | 56952 |
| ☐ | 4 | ∨ kidney graft*.mp. | 74766 |
| ☐ | 5 | ∨ renal transplant*.mp. | 77276 |
| ☐ | 6 | ∨ renal graft*.mp. | 7653 |
| ☐ | 7 | ∨ 1 or 2 or 3 or 4 or 5 or 6 | 196875 |
| ☐ | 8 | ∨ tacrolimus/ | 98259 |
| ☐ | 9 | ∨ tacrolimus.mp. | 100689 |

| ☐ | 10 | ∨ fk 506.mp. | 13907 |
| ☐ | 11 | ∨ 8 or 9 or 10 | 103719 |
| ☐ | 12 | ∨ cyclosporine.mp. | 72640 |
| ☐ | 13 | ∨ ciclosporin.mp. | 4266 |
| ☐ | 14 | ∨ cyclosporine/ | 30803 |
| ☐ | 15 | ∨ 12 or 13 or 14 | 75649 |
| ☐ | 16 | ∨ kidney graft rejection/ | 17544 |
| ☐ | 17 | ∨ reject*.mp. | 250287 |
| ☐ | 18 | ∨ 16 or 17 | 250287 |
| ☐ | 19 | ∨ 7 and 11 and 15 and 18 | 3815 |

**Advanced search syntax**

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 | adj*n* | disturb* adj3 sleep | Find a word within a specified number of words (in any order) |
| Nested proximity | (a or b) adj*n* (c or d) | (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 |