Overview

Medline is one of the largest online medical databases available and now goes back to articles that were indexed in 1946. When searching Ovid Medline, you are searching the record of the article, not the full text of the article itself. The record consists of article title, abstract, author (s), journal title, volume, issue, pages, date, MeSH terms, institutional affiliation, etc.

What should I do before I search?

Plan your search before you get started. What are the primary aspects of your topic? How do you want to limit or narrow your topic? This will help you develop your search once you’ve selected a database.

How do I access the database?

1. Go to the library’s homepage:
   www.sph.uth.tmc.edu/library
2. Under Selected Databases, choose Ovid Medline & Ovid PsycINFO.

How do I select a database?

At the Ovid menu:
1. Check the box next to the Medline files covering the range of years you want to search.
2. Also check the box next to In-Process & Other Non-Indexed Citations (3rd line in the Ovid menu) for the most up-to-date search.
3. Click Select Resource(s).

Note: We strongly recommend that you do not search different database titles, i.e. search only Medline or search only PsycINFO, but not both at the same time.

Which range of years should I use?

Your project and your topic will determine which range of years you should search. If you do opt for 1996 to the current week, have a good, scientific reason. It might be that you are interested in the impact of health legislation that was passed in the late 1990’s or a medical treatment that was developed in the 2000’s. Just be sure you have a good reason. Otherwise you can search as far back as 1946. However far you decide to go back—1946 or 1996—be sure you also include the In-Process file to get the most current items.
How do I know which terms to use?

Before you begin, make certain you have defined the broad concepts of your research question and then appropriate terms within each concept. Even though it might seem counterintuitive, the most efficient way to search is by one term/one concept at a time! The terms you identify are then translated into MeSH (Medical Subject Headings) terms when you search Ovid Medline. How can you be sure you are using MeSH terms?

In the Search box, enter a single term. Map Term to Subject Heading is checked. In this example, *H pylori* was entered in the search box.

*Note:* The Map Term to Subject feature is not available when searching multiple database titles (i.e. Medline + PsycINFO). It will search any term you enter as a keyword. This is why we recommend you search only one database title at a time.

Ovid has mapped the term entered to two terms that match closely (*Helicobacter Infections* and *Helicobacter pylori*). *H pylori* has also been mapped to other terms that it is frequently searched with it. For example, *H pylori* and stomach ulcers are commonly searched together so Peptic Ulcer appears in the list of mapped terms. Here’s the trick: Stick with your initial term or concept and avoid straying into other concepts.

To the right of the subject headings are 3 columns.

**Explode** includes any narrower subject headings listed under that term. The next page has a more detailed description of the explode function but we recommend you avoid using it and opt to select individual terms instead.

**Focus** strictly narrows the search. We recommend you avoid using it.

On the far right is **Scope**. Click on 📆 to see the definition of the term, the year it was added to MeSH, and other terms it is used for. Reviewing the scope note can help you identify other terms title/abstract searches (page 2) and it ensures that you are using the term in the way it was intended.

If you click on 📆 use the <<Previous Page link at the top of the page to return to the list of terms. **Do not use the back button!** You can potentially lose your entire search by doing so.
**Select terms to search**

On the mapping page, click on **Helicobacter pylori** (the bacteria) to view the MeSH Tree. This is a hierarchical way to categorize and display terms.

The term you selected from the mapping page will be highlighted by a blue bar. Scroll down the page to locate **Helicobacter pylori** under Organisms—> Bacteria—> Gram-Negative Bacteria—> Helicobacter. (You can learn quite a bit from the MeSH tree. For example, did you know that h pylori is a gram-negative bacteria?)

**Why you should NOT Explode terms**

Notice that under **Helicobacter** there are 5 other terms. If you check the box to explode **Helicobacter**, you will select that term as well as **helicobacter felis, helicobacter heilmannii, helicobacter hepatitis**, etc. It is better to select only the terms you want as opposed to exploding and finding many items that are not relevant to your topic.

Ovid automatically checked **Helicobacter pylori** as that was the term selected on the mapping page. Consider also selecting the broader term **Helicobacter** as well— but don’t explode it.

Click **Continue** at the top of the page. When

Since two terms were selected, you will be returned directly to the main search page where you will see that almost 25,000 items found.

But the search for **h pylori** isn’t over yet!
Don’t forget—h pylori mapped to **Helicobacter Infections** (the illness caused by the bacteria) as well so we need to include that term in our search concept. Type *h pylori* into the search box again to return to the mapping page.

This time, click on **Helicobacter Infections** to go to the MeSH tree.

There are no narrower terms under this term. How do we know? If there were, there would be a “+” next to the term.

Click **Continue** at the top of the page.

**Subheadings**

When you select only one term from the MeSH tree, you will be taken to the **Subheadings** page for that term. **Subheadings** allow you to focus on a specific aspect of that term.

For now, just click **Continue** to select all subheadings. A more in-depth explanation and example of using subheadings can be found on the last page.

**Search the title, abstract, and key word fields**

Each search for the *h pylori* terms has found over 20,000 items. The next step is to search for the occurrence of either *pylori* or *helicobacter* in either the **title**, **abstract**, or **keyword**. Why do this?

First— the most current records, i.e. from the In-Process file, do not have MeSH terms assigned to them. The only way to find them is by searching in the title and abstract fields.

Secondly, while *h pylori* is a fairly straightforward concept, others are not so easy to pin to just 1 or 2 terms and sometimes our commonspeak finds items that MeSH terms do not.

To search in the title and abstract, use the syntax **.ti,ab,kw.** In the example to the right, two terms have been put inside parentheses using **or** (more about this below) followed by **.ti,ab,kw.**

This tells Ovid to search *only* in the title and abstract fields for the occurrence of these terms.
How do I combine terms and concepts?

Use **OR** to combine similar or synonymous terms to find the **UNION** of the terms and **AND** to combine concepts to find the **INTERSECTION**. A search using **OR** will always find more than a search using **AND**.

So far, only terms for *H. pylori* have been searched so we need to combine them to create the first concept cluster.

To combine the 3 lines, check the boxes next to the lines, then click **OR** to combine. Why? Because the first 3 lines are being treated as *synonymous* terms. We don’t care which term is found as long as the article has something to do with *H. pylori*.

The number of items found is almost **33,600**.

In order to create the next concept cluster, you need to follow the steps from the first couple of pages of this handout, searching for terms related to the second term. In the example here, we are using *H. pylori* in our water supply so the next set of terms are related to water.

How can I see my entire Search History?

But wait— where’s line 1 of the search?

Click **Expand** (to the right of the search box) to view your entire Search History. Otherwise, only the last four lines are displayed.

How do I combine terms and concepts? (cont’d)

Since we are continuing with building the next concept cluster, we need to combine lines 5 through 7 which have the water terms. Remember— we are treating these as *synonymous* terms so we look for the **UNION** of the terms and not the **INTERSECTION**. This means that we will combine them as we did above— check the boxes next to them, then click **OR**.

To find the **INTERSECTION** of the two concepts, i.e. those articles that contain at least 1 term from each concept cluster, check the boxes with the OR statements, then click **AND**.
And here’s the magic. Notice that we went from 408,000+ water articles and 32,500+ h pylori articles down to only 616 combined articles.

By adding a 3rd concept, it’s possible to get the number down even further.

In the example to the right, incidence/prevalence-related terms were added to the search. Notice that epidemiological study types were added to the search. This was done by using a series of search filters which have been designed to retrieve specific study types. These can be found at: http://libguides.sph.uth.tmc.edu/ovid_medline_filters

Because the search is done by creating conceptual clusters, it is a simple matter to combine line 18 (incidence terms) with the water and h pylori terms.

**How can I make certain I’ve selected all terms relevant to my topic?**

As you review the results, click on Complete Reference to see the entire record. Look at both the MeSH Subject Headings and the Abstract to see if there are terms that could improve your search.

For example, this article appears to be right on topic. If you look at the MeSH Subject Headings, notice there are terms that were included in the original search— Water Microbiology and Water Pollution. But the search has already been completed— now what?

First of all— don’t redo the whole search! Instead, save the search, then edit it! This is a really great trick to learn, one that will save you lots of time.

Pages 8-11 describe how to save a search and then how to edit it.
How can I retrieve articles in English only?
Check the English Language box which is found under Limits to retrieve English-only articles. Click on Search to retrieve articles from the last line of the search. Or you can enter a specific line number in the text box, check the English Language, and click on Search.

In this example, only 1 article was removed from the 16 found related to sewage and h pylori.

Other Limits
1. Full Text—Don’t do it!!!! This limits to only those 300 or so FT journals in Ovid; we have access to thousands of journals through other sources.
2. Publication Year—Limit to a range of years or select a specific year to search.
3. Latest Update—Retrieves items added in the last update to the database.
4. Additional Limits—Click on the button to limit by age groups, publication types, and other selected fields. Be careful with these limits, though. They aren’t always as precise as you might expect.

How can I locate the full text of articles from my search results?
Each record has a button to take you to a search tool for online full text articles.

For most articles, you should be taken directly to the article. Look for the PDF button to retrieve the full text of the article.

Sometimes there is a problem retrieving an article. You may see a message that cookies have to be enabled. The easiest fix for this is to click on Get additional resources related to this at the top of the page. From there, click on Article to go to the article.
What if the article is not available at all?

If you get the message that “Sorry, no holdings were found for this journal”, click on the links to Search the Online Catalog. Try both links just in case. Sometimes the journal title search finds it when the ISSN search doesn’t.

If the journal still is not found OR it is found at one of our partner libraries but not the SPH Library, the next step is to request the article through Interlibrary Loan (ILL).

You will need to set up an ILLiad account (ILLiad is the name of our interlibrary loan system), but once you have, the information for the article is automatically sent directly from the article search page to the ILL form.

**Note:** If you are in Houston and the journal is in print at the UTSPH Library, you must come in and copy the article yourself. If you are at a regional campus, request the article through ILLiad.

How do I save my search?

You have the option of saving your searches in Ovid Medline. Click on the **Save Search History** button under the search history. You will need to have an account in Ovid in order to save your search.

**Create an Ovid account if you do not have one**

Click on [Create a new Personal Account](#) to create an account if you do not have one.

You are required to fill in any lines with a red asterisk *. Keep your username and password simple! It’s okay to use your UTHSC-H username, but use a different password from your UTHSC-H password. Also, don’t name it based on a single project as you may want to save other searches in the future.

The password has to have 6-8 characters. Don’t worry— If you forget your password, Ovid will reset it and send you the new one in an email.

For **Job Title** and **Job Function**, use student.

**Institution Name:** UTSPH  
**Institution Type:** academic  
**Email Address:** your_email@uth.tmc.edu

Click on Create. You will be taken to the main search page and a message will appear indicating the search has been saved.
Once your account is created, you will be asked to assign a name to your search. Using a name according to your topic (ex. h pylori and water and epi studies) will help you identify the search easily.

Next, record the database and the date—including year—in the comment field.

For Type, the default is Permanent.

Click Save. The search strategy will be saved and you will be returned to the Main Search page.

How do I edit a saved search?
Click on View Saved just above the Search History box on the right.

Click on the pencil above the name of the search you would like to change.

There are a series of icons at the end of each search statement row.

Insert
The upward curved arrow is available only in the first row. It lets you insert a row above the row.

The downward curved arrow inserts a line after the row.

If we want to insert the MeSH terms Water Microbiology/ and Water Pollution/, we need to click on the down arrow at line 8 to insert a line below it.

Add the terms exactly as they should appear: Water Microbiology/ or Water Pollution/.

Why was or used? Again, we are building a concept cluster; water microbiology and water pollution are being treated as similar terms to each other.

And, since these are MeSH terms, be sure to add the “/” at the end of the terms. Look at Line 10—notice it says 5 or 6 or 7 or 8 or 9.
Click on Submit.

Now look at Line 11 (which used to be Line 10). While the term has been added as a search statement, it is not part of the water concept cluster yet. For that to happen, we have to edit Line 11.
Edit
The next icon, the pencil, allows you to edit a search line.

Because a row was inserted, the line numbers have been modified. Compare the line numbers of the two boxes on the right. Line 11 in the top box does not include Line 9 which has the two new terms. It shows 5 or 6 or 7 or 8 or 10 and has skipped 9.

Line 11 must be edited so that it includes the new term. It should read 5 or 6 or 7 or 8 or 9 or 10.

Click on Submit.

Delete
The last icon is a big X which allows you to delete rows if you need to. If you try to delete a row that is used in other lines of searches, all of those lines will be selected for deletion.

To the right is the search from above with socioeconomic terms added. To delete the terms, simply click on the X. However, if you click on a line that is part of another statement, you will be warned that any other search statements that line is a part of will be deleted as well. You have the option to cancel a deletion so be sure you review the changes before taking the final step and deleting a row (or rows!).

Save
Once you have finished making changes, click on Save.

How do I retrieve a saved search?
If you want to run your saved search again, go to Ovid Medline from the Library home page. Above the Search History area is a button that says View Saved. Click on it.

You will be asked to login; enter your Ovid username and password.

Once you have logged in, find the search you want to run again and check the box above it.
Scroll up and click on Run.

When the search is completed you will see a message that Search results are on the Main Search Page. Click Search to return to the main search screen.

**How can I be alerted each week of the latest search results?**

You can create an **Auto Alert** of your search but results from just the **last line** will be found and emailed to you. Two searches are demonstrated in the example on the right. The first combines the water & h pylori terms with the incidence/prevalence terms. The second combines the water & h pylori terms with socioeconomic terms. The search alerts are designed to return only new results found on the **last line only** which, in this case, would be the socioeconomic search.

If you want search alerts for both the SES search and the incidence search, you will have to create two search alerts.

Click **Save Search History** as before.

Give it a **Search Name** that identifies it easily. Add the database searched and the date in the **Comment** field.

The **Type** of search should be set to **AutoAlert (SDI)**.

You will be offered multiple options for the search alert. If you want the most current information, choose **On Database Update** as your **Scheduling Option**.

Edit the **Email Subject** line; the default is **OvidSP Results**.

Click **Save** (at the top).
Once it has been saved, you will be taken back to the **Main Search** page. Remove all search statements. The quickest way is to click on the box in the top left part of the grey area, then click on **Remove Selected**.

Check the boxes next to the lines related to the SES terms and click on **Remove Selected**.

Follow the steps above to save as an AutoAlert search, being sure to use a name that indicates it is the search for epi studies.

### What if I want to change the range of years I searched?

To modify the range of years searched in Ovid, click on **Change** found just above the search box.

This will pull up a menu of databases to select. Check the **MEDLINE** files you want, then click **Select Resources & Run Search**.

### What if I want to search PsycINFO?

If you also want to search PsycINFO, click on **Change** found just above the search box.

At the database menu selection screen, check the **PsycINFO** box that covers the range of years you want to search. Click **Select Resources**. Don’t click **Select Resources & Run Search**.

While you can use your Medline search to guide you in terms of your concepts, the terminology used by PsycINFO can be very different from Medline as the subject headings for PsycINFO are based on the American Psychological Association Thesaurus of Psychological Terms.
What are other fields that I can search?

Other useful fields to know are:

.au. = author

**Ex.** mullen pd.au.

**Note:** Search using the first name initial and middle initial if that is how the author is cited. If you are unsure, try with and without middle initial: mullen pd.au. or mullen p.au. Or use an asterisk instead of initials but enter a word from the title or abstract: ness *.au. and peach.ti,ab,kw.

.ax. = author last name

**Ex.** begley.ax. and systematic review.ti,ab,kw. and epilepsy.ti,ab,kw

**Note:** Use this if you have a partial citation; somebody has told you that they read a systematic review by Begley about epilepsy but didn’t know the author’s first name.

.in. = institutional affiliation of the *first* author

**Ex.** anderson.in. and houston.in.

**Note:** This will locate only those articles in which the *first* author is at Anderson and in Houston.

.jn. = journal

**Ex.** annals of epidemiology.jn.

.yr. = year of publication

**Ex.** mullen pd.au. and 2008.yr.

.rn. = CAS registry number

**Ex.** interleukin.ti,ab,kw,rn.

**Note:** Even though the field name refers to the CAS registry *number*, it allows you to search for drug names, biomarker names, etc. Notice how the 4 fields—title, abstract, keywords, and CAS registry number—are all searched in one statement.

A complete list of searchable fields can be viewed from the Main Search page. Click on **Search Fields** just above the text search box.

The syntax is searching follows the pattern of **Your_term.2_letter_code**.

To search in a field, begin and end the two letter code with a “.”.

If you are at the **Search Fields** screen, you can also click on the field you want to search and then enter your term.

However, when you are done looking at the search fields, be sure to click **Advanced Search** to return to the search correct search mode.
More on subheadings

MeSH terms have different subheadings depending on the term. To the right is the list specific to Helicobacter pylori.

PLEASE NOTE: We generally recommend that you click Continue to select all subheadings rather than trying to determine which subheading is the best. However, there are times when you may want to use a subheading in building your search concept.

To do so, use the two letter code without the slash followed by .fs.:
bl.fs. will search for the subheading Blood
ge.fs. will search for the subheading Genetics.

To the right is an example of how a search might look using subheading in a search. Another example is found on page 15.

In this example, the search is still focused on h pylori and epidemiological studies but now is highlighting how genetics influence virulence.

Lines 13 and 14 have the virulence terms.

Lines 16, 17, and 18 have the genetics terms. Line 18 uses the genetics subheading in the search. When all 3 concepts are combined, there are 1,919 items returned once limited to English.

Out of those, 1,706 have the ge.fs. subheading. How do we know that?

A separate search (line 22) combined the results (line 18) with the search strategy. So, while most of the articles used the subheading, there are over 200 that didn’t. This is which is why it is so important to mix and match MeSH, title/abstract terms, and even subheadings.

What is important to note, though, is that we didn’t select the genetics subheading from the Helicobacter pylori page. Instead, we used the subheading as a term within the genetics concept.
Another example with subheadings

Below is a series of search statements relating to laws and legislation. Line 1 has several multiple MeSH terms. Line 2 has the title/abstract terms. Line 3 utilizes the appropriate subheading.

1. legislation as topic/ or legislation, medical/ or "patient protection and affordable care act"/
2. (law or laws or legislation or legislative or legal).ti,ab,kw.
3. lj.fs.
4. 1 or 2 or 3

See if you can take the legislation concept cluster and develop a search that focuses on access to health care for people with substance abuse issues using combinations of MeSH terms and title/abstract words. You will need to develop two separate concept clusters in addition to the legislation one you were given.
I saved a search a few months ago but now I would like to update it.

If you have a saved search that you created several months ago (or even a year ago) but did not set a search alert and now you need to update the search, there is a way to create an updated search in which you add the following (or a variation thereof) to the saved search after you retrieve it and run it in Ovid Medline.

\[ \text{limit last_line_# to updaterange} = \text{prem(20130922010340-20140123122420]} \]

\[ \text{limit last_line_# to updaterange} = \text{pmfc(20130922150340-20140123122420]} \]

Let’s break down what the above means because you will need to adjust your search update statement based on when you ran your last search. Fortunately, you know when you last ran the search because you included the search date when you saved your search history:

In the example to the right, we need to make last_line_# 12:

limit 12 to updaterange....

How is the updaterange determined?

- **prem** = In Process file only
- **pmfc** = 1996 to present (includes the In Process file)

20130922150340-20140123122420 = year, month, day, and a time stamp

In the example to the right, the update range of years goes from 2013 to 2014. The month and day to start looking for added items has been set to October 8—the date the search was created and last run. And the best that we can tell is the time stamp refers to the hour, minute, and second the search was run. (We have been unable to find documentation on this and figured this out through a trial-and-error process.) You can adjust the time; they use 24 hour time frames (i.e. 1:00 pm is designated by 13).

In this example: 20131008010340 - 20140128242420

The start point is 2013 October 8 at 1:03:40 (am). The end point is 2014 January 28 at 12(midnight):24:20.

How do you know what time to set? The end point should be the day you are running the update with the time set to as late as you want. The start point should be the day you ran the search as early as you want.

What do I do if I need additional help?

Ovid Medline has a pretty good Help file but it useful you want to learn more tricks. It’s not as good with helping you build searches. Use the Ask a Librarian link to send an email to our online reference service. We will be in touch with you as quickly as possible.