Medline

Medline (produced by the U.S. National Library of Medicine) is widely recognised as the premier source of bibliographic information for health and biomedical literature. It covers 1946 to present and includes over 25 million journal article references. Medline encompasses information from Index Medicus, Index to Dental Literature and the International Nursing Index, as well as other sources in allied health, biological/physical sciences, medicine and health care.

EBSCO is the primary platform for the Medline database, however content is also included in the Web of Science database. This guide refers to the EBSCO database platform.

This database is available on and off campus and may be accessed from Databases A-Z in the Electronic Library at www.ljmu.ac.uk/library/e-library

1. Searching

Medline will open in Advanced Search mode.

Enter subject keywords into the search boxes and click Search to find relevant books, journal articles and proceedings.

Click the plus + icon to include additional search boxes if you would like to enter a more complex search.

2. Search Tips

2.1. Boolean Operators

Boolean search operators AND, OR and NOT link your keywords together and enable you to search more effectively.
AND – Narrows a search to only find records which contain all search terms: e.g. diabetes AND insulin

OR – Widens a search to find records containing any of your alternative search terms, but not necessarily all: e.g. blood OR plasma

NOT – Excludes part of a topic or specific terms from a search: e.g. asthma NOT inhaler

2.2. Phrases

You can search for an exact phrase of two or more words by surrounding it with quotation marks e.g. “drug resistant bacteria”. This will ensure that the database or search engine only retrieves records where these words appear together as a phrase.

2.3. Truncation

An asterisk * is a truncation symbol that can be used after the first few characters of a word to include all varying endings of that word in a search.
e.g. hormon* will find hormone, hormones, hormonal

2.4. Wildcards

A wildcard symbol such as ? $ or * can be used within a word as a substitute for one or more characters to account for differences in spelling.
e.g. organi?ation will find organization (American English spelling) and organisation (British English spelling)

2.5. Alternative Search Terms

If you are struggling to find information on a given topic – try changing your search terms to include alternative keywords e.g. an alternative term for vitamin C is ascorbic acid.

Tick the Suggest Subject Terms box at the top of the Advanced Search screen to identify alternative or preferred search terms for your topic within the Medline database. This can be helpful if there are international differences in terminology.

2.6. Search Limits

Each search box has a drop-down menu next to it, this enables you to choose where the database will search for your keywords.

The default setting Select a Field (optional) will search each item record for your search terms. You can make your search more specific or broader by selecting different options e.g. within the TX - All Text, AB - Abstract or MW – Word in Subject Heading.

- **All Text** searches will search the article record as well as the entire full-text document to identify all possible matches for your search terms. This is a good way of expanding your search so you don’t miss related results and is particularly useful if you are looking into a new area of research.

- **Abstract or Subject Heading** searches are more specific. If your search terms appear in one of these fields the article will be completely focused on your topic or include a
major mention of it. This can be useful if there is a massive amount of research available on your topic as it will help to filter out the most relevant and subject-specific results.

Further refinement options are available on the Advanced Search screen to limit your search.

![Advanced Search Screen](image)

The majority of limits are also included on the search results page e.g. Publication Date, Subject, Age, Gender or Geography. This is usually the preferred method for limiting a search because it can be helpful to see how many resources have been published on your topic in total before adding any limits.

3. **MeSH – Medical Subject Headings**

Medical Subject Headings (MeSH) are terms/categories assigned to each article in Medline, which represent the main subjects examined by the research.

Traditional keyword searches only finds research that contains the exact search terms you enter. MeSH offers an alternative method of searching, whereby the database provides access to all of the research that the database contains on a specific subject. MeSH searches usually produce a smaller number of highly relevant search results.

![MeSH 2019](image)

Click on MeSH at the top of the screen to begin searching. Enter your subject term/keyword into the search box and then click Browse.
Medline will show a list of MeSH terms that closely match your search and identify any preferred terms for your topic. Select a term by clicking in the tick box.

When you select a term, Medline will display additional Subheadings related to your topic that you may choose to narrow your search e.g. Adverse Effects, Diagnosis, Immunology, Metabolism, Psychology, Toxicity, etc... or you can include all Subheadings in your search by default.

There are also other options available to improve your search results: Explode and Major Concept.

- **Explode** is used to expand your search. Medline headings are ‘exploded’ to include wider research that is indexed/connected to the specific term you select, as well as retrieving all relevant research on the topic and any narrower subsections of it.

- **Major Concept** refines your search and increases the relevancy of your search results. Medline will only find research that contains a major mention of your subject or focuses exclusively on it.

Tick the option to include Explode and/or Major Concept in your MeSH search.

Click on **Scope** for further information about the subject covered by the MeSH term.

To add other terms to your MeSH search, click **Browse additional Terms** at the bottom of the screen and follow the steps as above.
If searching for more than one MeSH term, you need to choose whether to combine your terms with **OR, AND**.

- **OR** will widen your search and find research that includes *any* of your MeSH terms but not necessarily all.
- **AND** will narrow your search and ensure that research contains *all* selected MeSH terms.

Once you have selected relevant MeSH terms click on the **Search Database** button to view your results.

**4. Displaying Results**

Search results are sorted by **Relevance** although this may be changed to **Date** order using the drop down menu.

The number of search results per page and detailed/brief record formats may be selected using **Page Options**.

Click the **Next** button at the bottom of the search results screen to move from page to page.

To view further details of an item, either click on its title or hover your mouse over the magnifying glass icon to display the abstract/summary.

Medline is a bibliographic database, which provides abstracts for each item and selected full-text. You can limit your results to full-text using the **Limit To** options on the search results screen and ticking the **Full Text** box.
To view full-text content – click on the PDF Full Text link to open the article within Medline or select Find It to check for full-text availability from other electronic resources.

5. **Print/Email/Save**

You can print, email or save selected item records from the list of search results in Medline.

Click on the blue Add to Folder icon next to an item record that you wish to keep. The icon will turn yellow to indicate the item is in your folder.

At the top of the screen click on Folder to view all item records you have identified.

Tick the checkbox next to individual item records or select all, then choose whether you wish to Print, Email or Save the records from the side menu.

Record details may be stored in brief format or as a detailed citation with the abstract. Links to available full-text will be included wherever possible.

Item records are stored temporarily in the Marked List for the duration of your internet browsing session.

You can register for a free personal account with the database to permanently save record details.

Alternatively, you can also Print or Save full-text content from within a PDF Full Text document by clicking the appropriate icon on the toolbar.

6. **Export Citations**

You can export records from Medline into EndNote reference management software to manage your research and aid with referencing.

Click on the blue Add to Folder icon next to an item record that you wish to export. The icon will turn yellow to indicate the item is in your folder.

Open the Folder and tick the checkboxes next to relevant item records. Click Export from the options on the side menu.

You will be prompted to select the appropriate format to export the item records. Please select Direct Export in RIS Format (e.g. EndNote) and then click Save. RIS Format is the default format for EndNote and should be the first option on the list in Medline.

The next step will differ depending on which internet browser you are using:

- **Internet Explorer** – the references should be automatically sent to your EndNote Library, however if a toolbar appears prompting you to Open or Save the record. Click Open.
• **Chrome** – an export option will appear at the bottom of your internet browser, click on the arrow to open the **File Menu**. Click **Open**.

The detailed reference and abstract will be sent to your EndNote Library. You may view the reference in your chosen referencing style e.g. **Harvard LJMU** from the Preview pane.

Medline will send the citation details for each item record into EndNote e.g. Author, Title, Source, etc. You can check if full-text is available within EndNote and also store full-text PDF documents in your EndNote Library.

Click on a specific reference or select all references in the library (press Ctrl and A), choose **References** on the menu bar and then **Find Full Text**. EndNote will search online and download any available full-text. The full-text PDF will be automatically attached and a paper clip will appear next to the reference to indicate that there is an attachment.

You may use the references you have downloaded into EndNote to “cite while you write”. EndNote enables you to easily insert references into the body of the text and create a full reference list for your assignments using icons on the toolbar.

**7. Search Alerts**

You can save your searches and set-up database alerts to notify you when new resources are published that match your search criteria. This helps you to keep up to date with research and new developments/innovations in your subject area.

You will need to register for a free personal account with Medline in order to use this feature.

To set-up an alert – sign in to your personal account and perform your search.

Click **Share** at the top of the search results page.

From the list of options, click **E-mail Alert** in the Create An Alert section.

Name your search alert and provide your university email address. Choose how frequently you would like to receive email notifications about new resources e.g. weekly, monthly.

Alerts will stay active until you delete them. You change manage your alerts or make changes by logging into your personal account, clicking on **My Tools** at the top of the screen and then **Saved Searches and Alerts**.
8. Further Help

Advanced help on searching the database and improving your digital skills is available. Please contact your Academic Liaison Librarian to book a one-to-one appointment.

Alternatively you can view our useful range of online tutorials, videos and guides on the Skills@LJMU webpages at: www.ljmu.ac.uk/library/skills

Guide Updated: September 2019
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