

# MEDLINE

MEDLINE is the U.S. National Library of Medicine (NLM) premier bibliographic database that contains more than 25 million references to journal articles in life sciences with a concentration on biomedicine literature from around the world introduced in 1971. It includes medicine, nursing, pharmacy, dentistry, veterinary medicine & health care. MEDLINE (Medical Literature Analysis and Retrieval System Online, or MEDLARS Online) is a bibliographic database of life sciences and biomedical information. It includes bibliographic information for articles from academic journals covering medicine, nursing, pharmacy, dentistry, veterinary medicine, and health care. It was established in 1964 as MEDLARS (Medical Literature Analysis and Retrieval System), a computerized storage and retrieval system at the US's National Library of Medicine (NLM) to provide for bibliographic access to the NLM's large biomedical literature collection. MEDLINE also covers much of the literature in biology and biochemistry, as well as fields such as molecular evolution. Compiled by the National Library of Medicine (NLM) of United States, MEDLINE is freely available on the Internet and is searchable via PubMed and NLM's National Centre for Biotechnology Information's Entrez system.

**HISTORY** - Since 1879, the National Library of Medicine has published Index Medicus, a monthly guide to medical articles in thousands of journals. In 1957 the staff of the NLM began to plan the mechanization of the Index Medicus. The original computer configuration operated from 1964 until its replacement by MEDLARS II in January 1975. Input sources into MEDLARS included Biomedical and other health science Journals, books, technical reports, etc. In late 1971, an online version called MEDLINE ("MEDLARS Online") became available as a way to do online searching of MEDLARS from remote medical libraries. In 1996, soon after most home computers began automatically bundling efficient web browsers, a free public version of MEDLINE was instigated. This system, called PubMed, was offered to the general online user in June, 1997, when MEDLINE searches via the Web were demonstrated.

**AUTHORITY** – Medline is a bibliographic database provides citations and abstracts for biomedical and health journals covering a wide range of subjects, of the National Library of Medicine (NLM), the world's largest medical library, which is part of the National Institutes of Health (NIH). MEDLINE is the primary component of PubMed, part of the Entrez series of databases provided by the NLM National Center for Biotechnology Information (NCBI).

A publisher or editor must submit an application for a journal to be considered for inclusion in MEDLINE. If a journal is selected for MEDLINE, its article citations will be reviewed and processed. Metadata, including Medical Subject Headings (MeSH), are added to the citations. MEDLINE content is presented through the PubMed database and also distributed through the NLM Data Distribution program as it has been for decades.

Access to MEDLINE data are also available via services and products developed by organizations that download the database from NLM. Access to various MEDLINE services is often available from medical libraries, many public libraries, and commercial sources.

**SCOPE AND COVERAGE** - The subject scope of MEDLINE is biomedicine and health, broadly defined to encompass those areas of the life sciences, behavioral sciences, chemical sciences, and bioengineering needed by health professionals and others engaged in basic research and clinical care, public health, health policy development, or related educational activities. MEDLINE also covers life sciences vital to biomedical practitioners, researchers, and educators, including aspects of biology, environmental science, marine biology, plant and animal science as well as biophysics and chemistry. Increased coverage of life sciences began in 2000.

MEDLINE includes literature published from 1966 to present and selected coverage of literature prior to that period. See OLDMEDLINE Data for coverage details about the pre-1966 citations that are not comprehensive for that time period.

The majority of the publications covered in MEDLINE are scholarly journals; a small number of newspapers, magazines, and newsletters considered useful to particular segments of the NLM broad user community are also included.

Currently, citations from more than 5,200 worldwide journals in about 40 languages; about 60 languages for older journals.

**INDEXING** - Engines designed to search MEDLINE ( such as PubMed & Entrez ) generally use a Boolean expression combining Mesh terms, words in abstract and title of the article author names, date of publication etc. A distinctive feature of MEDLINE is that the records are indexed with NLM Medical Subject Headings (MeSH).

The 2020 edition of the LSIUO {The *List of Serials Indexed for Online Users*} contains 15,225 serial titles, including 5,249 titles currently indexed for MEDLINE as well as titles indexed over time which have ceased or changed titles, listed alphabetically by the journal title abbreviation.

Full-text database providing full text for 1,400 journals indexed in *MEDLINE*, most of which have cover-to-cover indexing.

Indexers also provide additional information about an article's content by adding check tags, publication types, and Medical Subject Headings (MESH) to each record in the database.

**UPDATES:** MEDLINE updates daily. Citations are added to PubMed 7 days a week. More than 904,636 citations were added to MEDLINE in 2018. Updates are suspended for two weeks during November as NLM makes the transition to a new year of Medical Subject Headings (MeSH) vocabulary used to index the articles. The database is freely accessible on the Internet via the PubMed interface and new citations are added Tuesday through Saturday.

**SEARCH FEATURES** - It uses a simple search interface.

1. There are basically two types of search possible: Basic search, Advanced search.
2. Searches can be made using different fields like, author, text word in title, subject term, etc.
3. MeSH terms can be selected with the help of MeSH browser.
4. Entrez and PubMed can also find articles similar to a given one, based on a mathematical scoring system that takes into account the similarity of word content of the abstracts and titles of two articles.

**SPECIAL FEATURES** - MEDLINE functions as an important resource for biomedical researchers and journal clubs from all over the world. Along with the Cochrane Library and a number of other databases, MEDLINE facilitates medicine. Most systematic review articles published presently build on extensive searches of MEDLINE to identify articles that might be useful in the review. MEDLINE influences researchers in their choice of journals in which to publish. For lay users who are trying to learn about health and medicine topics, the NIH offers MedlinePlus; thus, although such users are still free to search and read the medical literature themselves (via PubMed), they also have some help with curating it into something comprehensible and practically applicable for patients and family members.

## **MEDLINE PLUS**

Medline plus is a free web services produced & maintained by NLM .Medline plus is to present high-quality, relevant health and wellness information that is trusted, easy to understand, and free of advertising, in both English and Spanish. Anywhere, anytime, on any device—for free.MedlinePlus Connect is a service that allows health organizations and health IT providers to link patient portals and electronic health record (EHR) systems to MedlinePlus.For developers, MedlinePlus also has a web service, XML files, and an RSS feed that provide data from MedlinePlus.Offers information on health conditions, medical tests, medications, dietary supplements, and healthy recipes.Sourced from more than

1,600 selected organizations. Provides 40,000 links to authoritative health information in English and 18,000 links to information in Spanish.

**DRAWBACKS** - A service such as MEDLINE strives to balance usability with power and comprehensiveness. In keeping with the fact that MEDLINE's primary user community is professionals (medical scientists, health care providers), searching MEDLINE effectively is a learned skill; untrained users are sometimes frustrated with the large numbers of articles returned by simple searches. Counter intuitively, a search that returns thousands of articles is not guaranteed to be comprehensive. Unlike using a typical Internet search engine, PubMed searching of MEDLINE requires a little investment of time. Using the MeSH database to define the subject of interest is one of the most useful ways to improve the quality of a search.

**CONCLUSION** - PubMed citations come from firstly MEDLINE indexed journals, secondly from journals/manuscripts deposited in PMC, and lastly from NCBI Bookshelf. Both MEDLINE and other PubMed citations may have links to full-text articles or manuscripts in PMC, NCBI Bookshelf, and publishers' Web sites. If we limit the PubMed search to MeSH controlled vocabulary or the MEDLINE subset, we will see only MEDLINE citations in our results. MEDLINE is the primary component of PubMed (<http://pubmed.gov>). The result of a MEDLINE / PubMed search is a list of citations (including authors, title, source, and often an abstract) to journal articles and an indication of free electronic full-text availability. Searching is free of charge and does not require registration.

RAKHI SINGH