
Family Practice Forum

The National Library of Medicine and How To Use It

Emmet F. Ferguson, Jr, MD
Jacksonville, Florida

It is the act of writing that gives order and structure to the thoughts and observations of a scientist. It is the published book or journal that gives permanence to this knowledge. And, it is the library that collects, organizes, and makes this literature available to all.

*Dr. Martin Cummings, Director
National Library of Medicine*

Unfounded criticism has come from a few individuals casting doubt on the wisdom of spending approximately \$45 million yearly to maintain the National Library of Medicine and its extramural programs. Much of this criticism results from not understanding the nature, scope, func-

tion, and worth of this great national resource. An understanding of the importance of the library to the medical profession and others with scientific interest is needed.

In 1836, the year Texas became a republic and the year before Queen Victoria was crowned, the Army Surgeon General established a library for the medical officers of the US military. An eminent physician, John Shaw Billings, in 1865 expanded the service to include other physicians and became the founding father of the National Library of Medicine. For 30 years he continued to direct the library, and in 1879 he published the first *Index Medicus*, a service which has continued down to today. Billings increased the size, scope, and depth of the collection; he purchased for it, he exchanged for it, he sought donations gifts for it. The library became his soul and he its servant.

The armed services sponsored the growing repository of books and nourished it for 120 years. Congress recognized its growing importance, and in 1956 legislation was passed officially designating it the National Library of Medicine.

Placed within the Public Health Service (Department of Health and Human Services) the

From the Department of Surgery, College of Medicine, University of Florida, Gainesville, Florida. Requests for reprints should be addressed to Dr. Emmet F. Ferguson, Jr., 1515 May Street, Jacksonville, FL 32204.

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library uses advanced technologies to store, retrieve, and disseminate biomedical information for the use of interested scientists, physicians, and medical workers. This is its goal and its hallmark.

In 1968, Congress established a new library component, the Lister Hill National Center for Biomedical Communications, to develop through research new medical communication technologies.

At present the National Library of Medicine (NLM) is the largest research library in a single scientific and professional field in the world. The interplay of basic sciences of chemistry, physics, zoology, botany, psychology, and medical instrumentation supports the broader interests of biomedical knowledge. Journals, books, pamphlets, reports, theses, microfilm, prints and photographs, and audiovisuals, over 2.5 million in over 70 languages, are processed and computerized. The library maintains one of the world's finest medical history collections, with books and papers dating from the 11th to the late 19th century.

Through a nationwide NLM network, the library is a research source for more than 4,000 universities, medical schools, hospitals, government agencies, and commercial organizations. It supports 11 regional medical libraries, each responsible for its geographic area and for coordinating NLM "on-line" search services. The regional libraries, like NLM, handle requests for health literature. In addition, there are 100 resource libraries working with NLM to better serve the biomedical community.

The purpose of a library is not only the accumulation of information but also the dissemination of this information to those persons who need and use it. This is the function of the National Library of Medicine.

How should the library be used? Go to the health science library in your community and talk to the librarian about the information you need. The librarian then will initiate the search for the necessary materials. Many questions can be answered in the local library. Much information can be found in ordinary texts and journals. Ordinarily, textbooks of medicine and surgery have not been placed on-line at the NLM. Readily available informational sources should be used before going to NLM information stores. Remember the legal ruling on photocopying, only one copy for study is permitted.

The Medical Literature Analysis and Retrieval

Systems (MEDLARS) includes 4.5 million references to journal articles and books on health published in *Index Medicus*. A user may search via NLM computers to obtain pertinent information on a specific problem.

It is possible to search for references by using words in article titles and abstracts as well as by using the 14,000 designated medical subject headings (MeSH) used by NLM in indexing and cataloging material.

The MEDLARS computerized on-line data bases are available for searching from terminals located in about 1,300 health science institutions in the United States. These institutions include hospitals, medical schools, government agencies, commercial organizations, and research facilities.

The help of an experienced librarian may be needed in retrieving this information, but it can be done quickly and more economically by MEDLARS than by any other system. Complicated searches are best left to librarian specialists.

Books or articles, even if they are not held in the collections of local or regional medical libraries, can be located by on-line computer search through individual institutional libraries.

There are nominal charges for a search, covering cost of computer connection and staff time. An extensive bibliography that would be too expensive to be received at the local library terminal can be printed at NLM and mailed the following day. Charges for such services are nominal.

Medical literature "on-line" (MEDLINE) contains approximately 600,000 references to biomedical journal articles published in the current and two preceding years; many abstracts are also included. Articles come from 3,000 journals published in the United States and 74 foreign countries. Selected monograph articles are also in MEDLINE. Dating from 1966, back files contain more than 2.5 million references. MEDLINE is updated monthly when new references are added to the data base.

Thanks to the foresight of Dr. Billings and his successors, and to Congress, the National Institutes of Health, and those thousands of dedicated physicians and scientists who have published scientific work, a wealth of information is available to you. It is your library, the best in the world. Use it and support it. No other discipline—law, education, industry, labor, religion, or agriculture—has such a resource.