

# Computer Search on Manipulation for Carpal Tunnel Syndrome

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The fundamental hallmark of professionals is their command of specialized information. Information is not simply what schools are about or what state and national boards assess: it is what the chiropractor applies daily to diagnosis, treatment and education of patients. The clinical competence of health providers is not only measured by passing boards for licensure but also by how well they continue to access and assimilate new information to provide quality patient care. This process becomes more difficult each year as the amount of professional literature increases. The real dilemma is for the busy physician to find the time to locate, screen and read from the estimated 7,000 scientific articles that are published each day. The time when subscribing to a couple of journals and attending a few continuing education courses would keep a physician current has long passed. This is particularly true for chiropractors, who provide a broader base of primary care service to their patients.

Recent court decisions holding physicians accountable for staying current with diagnostic and treatment protocols, coupled with the growing demand of insurance companies to justify treatment, creates even greater pressure for command of clinical information. Given the information explosion and the limited time of the average chiropractor, the skills needed to search "online" information databases have become imperative. The purpose of this column is to provide the chiropractor with the basic skills needed to use these databases and to exemplify the value of such skills with clinically pertinent research studies from the professional literature. This issue will provide a brief description of how online searching works, with an overview of the major biomedical databases.

## Online Searching

Searching biomedical databases can be accomplished with the use of any personal computer (including Macintosh), an inexpensive modem device, communications software, and an ordinary telephone line. For those with computers, the total cost, including a subscription and access to one or more of the major databases, will be around \$100. This will allow the doctor or staff to have instant access to the literature 24 hours a day every day. With communications software, the modem is used to dial the number of the database and ask for specific information which can be transmitted like a fax across the phone line to the doctor's computer or printer.

## Databases

There are hundreds of specialized databases, but only a few dozen have a biomedical focus. The following are perhaps of most interest to chiropractors:

Medlars -- produced by the National Library of Medicine, consists of several databases and is the largest source of medical literature in the world. Medline is the largest of these databases (over five million records) and covers a broad scope of subjects for the primary care provider. With the size of Medline one might wonder why any other database would be of value, but despite its enormous size, it only contains about 18 percent of the biomedical literature.

BIOSIS -- a biomedical index with over seven million records from mostly primary biomedical journals.

EXCERPTA MEDICA (EMBASE) -- a biomedical database located in the Netherlands that has approximately five million records from primary journals. It is perhaps less valuable because it has more of an emphasis on drug-related literature.

CHIROLARS -- a conservative primary care database that is the only online index of chiropractic, osteopathic and related biomedical literature and is the largest database in these fields.

#### Database Access

Some health care databases can be accessed directly, such as Medline and ChiroLars. Others must be accessed through a third party vendor. BRS and Dialogue are the two largest of these vendors in the United States. Both are available to users in Canada, Australia, and Europe. BRS has the largest subscriber base of health care providers, colleges and hospitals and all of the databases discussed above are available through BRS. Searching through BRS requires some additional searching skills and is slightly more expensive than some direct access options, but there are several advantages, including the ability to search multiple databases simultaneously. Some databases have a built in "user friendly" menu, such as CHIROLARS, or have special utility software that makes the database easier to search and understand. Medline has several such helper programs, of which Grateful Med and Paper Chase are the most popular.

#### Information Retrieval

The type of information the user wants will dictate which database would be most productive to search. If, for example, the user is looking for research about the manipulative treatment of carpal tunnel syndrome, there are only a few choices. Medline and CHIROLARS are the two most likely candidates: the former due to its sheer size, and the latter because of its emphasis on conservative care. Because Medline only indexes part of one chiropractic journal and part of one osteopathic journal, CHIROLARS is the best choice. By making a search online, we found that Medline has little over 100 articles dealing with manipulation/adjustments, while CHIROLARS has well over 2,000. A sample search on CHIROLARS found several articles dealing with treating carpal tunnel syndrome with manipulation. One of the more important studies is cited and described below.

Sucher, B: Myofascial manipulative release of carpal tunnel syndrome: Documentation with magnetic resonance imaging. *Journal of the American Osteopathic Association* 1993; 93(12):1273-78.

This clinical research reports the successful conservative treatment of four patients with carpal tunnel syndrome. There are several features to the study that make it quite exciting. It employed only myofascial release and stretching procedures as methods of therapy. There was no attempt to use drug therapy, niacine, wrist splints, etc., which would have confounded the results. In fact, the patients had previously had unsuccessful treatment with anti-inflammatory medication, steroid injections and/or splints. Furthermore, the author used some reliable diagnostic and outcome measures to establish the initial diagnosis and monitor patient progress. Electrodiagnosis (EDX), and MRI were made before and after treatment. The patients responded with dramatic symptom reduction, improved nerve conduction, and enlarged carpal tunnel as demonstrated on MRI.

Naturally, there is a need for larger studies, but this is the kind of information that chiropractors need to help guide them with treatment options. It is also the kind of research that is not beyond the capabilities of many practitioners and is so desperately needed by the profession.

Future columns will explore the skills needed to become a competent user of online systems. Your suggestions and comments would be appreciated.

Resources:

*BIOSIS Information Service of  
Biological Abstracts, Inc.  
2100 Arch Street  
Philadelphia, PA 19103)1399  
800/523-4806 or 215/587-4847*

*BRS (Maxwell Online, Inc.)  
8000 Westpark Dr.  
McLean, VA 22102  
800/289-4277 or 703/442-0900*

*CHIROLARS  
The Action Potential Company  
P.O. Box 50837  
Denton, TX 76206  
817/898-0234*

*DIALOG Information Services, Inc.  
3460 Hillview Avenue  
Palo Alto, CA 94304  
800/3-DIALOG (800/334-2564) or 415/858-3785*

*EXCERPTA MEDICA (EMBASE)  
Manager, North American Database Dept.T  
52 Vanderbilt Avenue  
New York, NY 10017  
800/457-3633 or 212/633-3971*

*GRATEFUL MED  
National Library of Medicine  
8600 Rockville Pike  
Bethesda, MD 20894  
800/423-9255 or 301/496-6193*

*MEDLINE  
MEDLARS Medical Section  
National Library of Medicine  
8600 Rockville Pike  
Bethesda, MD 20894  
800/638-8480 or 301/496-4000*

*PAPERCHASE  
Longwood Galleria  
350 Longwood Avenue  
Boston, MA 02115  
800/722-2075 or 617/732-4800*

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FEBRUARY 1994

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