

## **Brain Injury Resources On the Internet: A Brief Guide for Professionals, Patients and Families**

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The expanding Internet has become an increasingly valuable tool for world wide sharing of information. Health care professionals, patients, lay persons, family members and others are afforded instant access to masses of information and almost unlimited resources on virtually any topic, as well as an almost seamless vehicle for communication.

The sheer volume of information, however, is also a drawback. With close to a billion pages on the World Wide Web, and no single index, clearing house or search procedure, it is very difficult to locate the precise information that you need. Furthermore, there is no regulation of the accuracy of the information available. Thus, searching for specific, correct information on the Internet can be challenging, confusing and frustrating

The present paper provides a brief introduction to Internet concepts and search methods, with specific emphasis on locating information related to brain injury and its management. It includes the most comprehensive collection of Internet web links for professionals, patients, family members and other interested persons who assess, treat or cope with brain injury. There are nearly 200 links to numerous organizations, medical and psychological assessment and practical treatment strategies, assessment and treatment reviews, support groups, listserv groups for patients and professionals, advocacy resources, as well as news and assistive technology resources.

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### **I. Introduction to the Internet**

The promise of the Internet has given birth to public and private partnerships and a potential for improving health care worldwide in a way never before seen before. Yet its potential has barely been

tapped because most professionals and laypeople lack the confidence and skills to utilize the unlimited resources.

Essentially, the Internet is a vast and geometrically expanding communications system and library of information, comprising hundreds of millions of pages. But this library is one, where figuratively speaking, all the pages have been dumped into a pile in the middle of the floor. There is no central directory or catalog. Even the best search engines and other services only catalog about 30% of the total information available. The present paper offers a brief introduction to the concepts and procedures that will help both the novice and the more experienced Internet user to access health-related information in an efficient manner.

Although the terms Internet and World Wide Web (or Web) are not technically equivalent, they will be used interchangeably throughout this article.

### **2. Browsing, Searching and Recording Information**

In order to surf the Internet, you must first connect to it via your modem and Internet service provider. You also need a browser such as Netscape, Internet Explorer (IE) or America Online. The browser is the software on your computer. Search engines (e.g., Yahoo, Excite, Dogpile) are programs on remote computers that search for information in cyberspace.

In order to use a search engine, you must first go its web site by typing its address in the space provided in the top portion of your browser, and pressing ENTER. Every page on the Internet, including search engines, has a specific address, known as the Uniform Resource Locator or URL. The address usually takes the form of [www.anywhere.com](http://www.anywhere.com), [www.anywhere.edu](http://www.anywhere.edu), or [www.anywhere.org](http://www.anywhere.org). The last three letters in the name designate whether the site is commercial (.com or .net), educational (.edu) non-profit (.org), or government (.gov).

Once you have the search engine on your computer screen, enter the name or subject you want to search, and click on the "search" button. You will be presented with a list of links or "hits." When you click on any of these links you will be connected to their respective pages or web sites.

### **Use the Best Search Engine for Your Purposes**

There are dozens of search engines. Some of the most popular ones include [hotbot.com](http://hotbot.com), [yahoo.com](http://yahoo.com), [excite.com](http://excite.com), [lycos.com](http://lycos.com), [altavista.com](http://altavista.com)

and northernlight.com. These are general search engines that use your keyword to locate web sites and pages containing the information you are seeking. As stated earlier, even the most sophisticated engine cannot locate them all. As a general rule of thumb, if you are looking for a specific company, organization or web site, use yahoo.com. Yahoo's superior indexing capability will filter out more obscure references. On the other hand, if you are searching an obscure, specific topic, try altavista.com. This search engine looks at every single page on every site. It is ideal for those "needle-in-a-haystack" searches. For complex searches or those with more than one concept, use hotbot.com or northernlight.com. These use techniques to help you narrow your search so that you are not overwhelmed with irrelevant hits. On the other hand, when you want to explore other concepts related to your original one, try Excite.com. There you can search by concept as well as by keywords.

The following are some tips to make your Internet search more effective and efficient. These tools of the trade were derived from publications, online tutors and experience of the authors:

Search terms are usually not case-sensitive, while many URLs require exact upper and lower case. Both require accurate spelling.

- I. Use boolean operators (and, or, not) to narrow searches and to minimize irrelevant hits. For example, if you are looking for information about the treatment of depression secondary to brain injury, but do not want to be inundated with articles about antidepressant medication, type your search terms as: brain injury and depression and treatment not medication
- II. If the search engine does not provide options for "exact phrase," use quotes around search terms of two or more words. For example, when you enter the search term "neurologic treatment" with the quotes, you will get links to pages that contain those two terms together. With no quotation marks around the phrase, you will get links that contain neurologic and treatment, but not necessarily in the same paragraph.
- III. Be prepared to try alternative search terms (e.g., cognitive deficit, neurocognitive impairment) for tailoring searches.
- IV. Be prepared to try different search engines, since most only index a fraction of the web.
- V. Use any known domain-specific search engines (e.g., medical search engines such as medexplorer.com, medguide.com, mwsearch.com)
- VI. Employ specific medical directories to assist with searches (e.g., achool.com, healthfinder.gov, healthweb.org, healthatoz.com)
- VII. Take advantage of any Help or other buttons that allow refining search options.

VIII. A good strategy for topic searches usually involves some combination of beginning with a relevant known site and using a search engine for locating new or more specific sites.

- IX. A relatively haphazard but easy and sometimes worthwhile approach is to simply type the name of an intuitively derived name in the browser address window, followed by .com (e.g., typing braininjury.com and brain.com produces two real sites, one of which is excellent). Additional options include replacing the extension .com with .org or .net.
- X. If a link does not access the expected page, try deleting one part of the domain name at a time, beginning at the right. For example, if <http://www.brain.com/newstuff/2345.htm> does not work, try brain.com/newstuff, and if that does not work, try brain.com).
- XI. If a link does not lead to the desired webpage, experiment with an alternate spelling; try removing or adding www. as a prefix, try .org or .net vs. .com, etc.

To find specific words, phrases or other information on a page, use the Find command in the edit menu of most browsers.

If you want to save a link to a given web site, use the "bookmark" or "favorites" feature of your browser. This will store the URL on your computer, so that when you want to visit the site later, you just click on the bookmark. You can also store bookmarks on free sites on the Internet, such as backflip.com, clickmarks.com and yahoo.com. The advantage is that you have access to your bookmarks from any computer that is linked to the Internet.

Besides saving a link to a web site, you can also save the page itself. In the "File" menu of your browser, click on "save as" and designate where you want the page stored and in what format (HTML, plain text, etc.)

Use the mouse button on the right (on Macintosh, hold down the mouse button) for pop-up menus that can make your search more efficient. For example, when clicking on a link with the right mouse button, you are presented with various options, including "open link in new window." In doing so you can save the page that lists all the hits, while opening several links simultaneously in several windows. This saves much time that would be wasted from clicking back and forth between web pages.

### **Other Resources for Internet-based Information**

Besides search engines, there are other ways in which you can gather specific information. They are described below:

If you're looking for a specific person (for example a researcher or other professional) search at [four11.com](http://four11.com) or [switchboard.com](http://switchboard.com).

### 3.1 E-mail Newsletters

E-mailing is one of the most convenient ways to keep in touch with colleagues and others who share your interests. But it can also be used for receiving specialized information from web sites. Many health-related web sites offer free newsletters delivered to your e-mail box. You can also sign up at [peacefire.org](http://peacefire.org), [informant.dartmouth.edu](http://informant.dartmouth.edu) or [northernlight.com](http://northernlight.com) for free, regular delivery of links to web sites on topics that you specify.

### 3.2 E-mail Lists (Listserv and Discussion Groups)

Most professional groups maintain e-mail lists, in which posted messages are distributed to the entire group. This is a valuable tool for keeping in touch with colleagues and sharing information. You must register in order to participate. Visit [lizst.com](http://lizst.com) or [topica.com](http://topica.com) to search for, sign up with e-mail lists on subjects that interest you.

If you become overwhelmed by the volume of mail from list servers, you can change your subscription to "digest" form, in which you receive only a summary of several messages at a time, and then access only those that you choose. You can also suspend mail while you go on vacation and reinstate it when you return. Instructions are usually provided when you sign up. Be sure to save them.

Many list servers maintain all messages received in a searchable archive. For a tutorial on using such archives, go to the "Search-and-You-Will-Find Tutorial" at: [mindspring.com/~jaredmarkw/searchdoc.htm](http://mindspring.com/~jaredmarkw/searchdoc.htm). This page offers instructions and sample searches that can be copied and pasted into your mail program. These can then be edited for specific searches and used to search any archive on any LISTSERV by substituting a desired list name and address for the sample one.

### 3.3 Web-based Forums and ListServ Communities

Forums, "communities" and "clubs" are centers for sharing information about a particular common interest. There are dozens of sites that invite people to join or start such a group. Examples include [egroups.com](http://egroups.com), [delphi.com](http://delphi.com), [threads.com](http://threads.com), and [visto.com](http://visto.com). You access these through the web rather than email. In addition to text messages you can post graphics and images, as well as conduct

real-time chats with other group members. Some of these forums are open to anyone, while others require free registration and a password.

Each group within the forum has a manager (usually the originator of the group) who sets the options such as who can join, whether messages are relayed to people's e-mail boxes or kept on the site, what topics are discussed, and how messages and other data are stored.

At this point, there is no central indexed list of web-based forums, so finding one is a trial-and-error process.

### 3.4 News Groups (Usenet)

News groups are forums that do not require registration but do require a newsreader for access (contained in both Netscape and Internet Explorer). Thousands of groups on thousands of topics can be explored at [lizst.com](http://lizst.com). Because most are unmoderated, discussion quality can vary greatly. Searching for messages by a specific keyword topic can be accomplished at [deja.com](http://deja.com).

## 4. Brain Injury Related Web Sites

If you attempt a search on brain injury from one of the general search engines such as Yahoo or Hotbot, you will get thousands of hits, but most will be irrelevant to your search. Using some of the tips described earlier will help limit the number of irrelevant hits, but this may still not be satisfactory.

It is usually better to start from one of the many specialized brain injury sites that contain only brain injury information and have links to other related sites. While many of these sites contain valuable clinical information, practice guidelines and up to date research and resources, others are out dated, inaccurate or useless.

The following are a list of sites obtained through various search engines, links from known sites and organizational home pages, publications, shared links from list serv groups and forums and other sources, including online internet guides (e.g., The New Internet Users' Guide at: <http://www.gtii.com/newusers.html>). A brief summary reviews of content is included.

#### Waiting While Someone is in a Coma

<http://www.waiting.com/>

A webpage devoted to individuals with a family member in a coma. Personal stories from Traumatic Brain Injury patients and families

are provided. Information on Intracranial Pressure, Coma, The Rancho Los Amigos Scale, Neurosurgery, Brain Anatomy, Brain Functions and Pathology, and Glossary. Resources include frequently asked questions and answers, advocacy, financial, legal issues, and rehabilitation. E-mail messages will be answered.

#### Traumatic Brain Injury Survival Guide

<http://www.tbiguide.com/sleepdisorders.html>

Traumatic Brain Injury Survival Guide contains information on head injuries and problems with sleep disorders, organization, memory, headaches, fatigue, depression, word-finding, seizures, recovery stages, and more.

#### Traumatic Brain Injury Chatroom

<http://tbichat.org>

Traumatic Brain Injury chatroom for patients and caregivers.

#### Links - TBI/ ABI

<http://mars.ark.com/~busstop/links.htm>

Traumatic Brain Injury chat room. Includes Caregiver's, patient's and professional E-mail lists.

#### The Perspectives Network

<http://www.tbi.org/>

The Perspectives Network offers information on enhancing rehabilitation through educating individuals with brain injuries, families, and professionals treating brain injury patients. Frequently asked questions about brain injury are provided in several languages. Additional links are given to order materials for educating others as well as articles and personal experiences shared by traumatic brain injury patients.

#### National Library of Medicine; Current Bibliographies in Medicine

<http://www.nlm.nih.gov/pubs/cbm/tbi.html>

Current bibliographies in medicine: Rehabilitation of persons with Traumatic Brain Injuries, over 2500 citations.

#### Traumatic Brain Injury Update

<http://weber.u.washington.edu/~rehab/bi/index.html>

University of Washington brain injury services, other clinics, and related web sites.

#### NIH Consensus Statement: Rehabilitation of Persons with Traumatic Brain Injury

[http://odp.od.nih.gov/consensus/cons/109/109\\_statement.htm](http://odp.od.nih.gov/consensus/cons/109/109_statement.htm)

Nat. Inst. of Health Consensus Statement derived from the independent report of the consensus panel.

#### The ABI/TBI Information Project

<http://sasquatch.com/tbi/>

Information on brain injury including subscriptions for e-mail list.

#### Personal Site by Chris and Debbie Wilson

<http://www.canddwilson.com/tbi/tbiepil.htm>

Traumatic brain injury, acquired brain injury and epilepsy home page with links to related sites.

#### BRAIN INJURY ASSOCIATION OF VIRGINIA HOMEPAGE

<http://www.bia.pmr.vcu.edu/>

Information and assistance to people with brain injuries, their families, and service providers.

#### EEG Spectrum Weblinks

<http://www.eegspectrum.com/html/wwwlinks.htm#TBI>

Extensive links to a wide variety of mental health and neurological problems provided by EEG Spectrum.

#### Ohio Valley Center

<http://205.182.14.25/>

The Ohio State University Department of Physical Medicine and Rehabilitation home page. Brain injury prevention and rehabilitation.

#### Brain Injury Association of North Carolina Homepage

<http://www.bianc.org/>

Homepage of statewide organization dedicated to providing education, outreach, prevention, advocacy and support services to all persons affected by brain injury, their families, as well as the general public.

#### Brain Injury Association - Community Associations

<http://tnt.vianet.on.ca/community/brain/caac.htm>

Contacts for community brain injury associations in Ontario, Canada.

#### Brain Injury: Kennedy Krieger Homepage

<http://www.kennedykrieger.org/training/brain.htm>

Training Center in Brain Injury Research.

#### Ohio Brain Injury Association Homepage

<http://www.ohiovalley.org/ohiahome.html>

Links to newsletter, support group, Ohio brain injury statistics and related information.

#### Traumatic Brain Injury Research Database

<http://biggulp.callamer.com/~cns/rehab/refs.html>

List of references for research articles in the field of TBI.

### Traumatic Brain Injury Model Systems

<http://www.tbims.org/>

Home page of the National Institute on Disability and Rehabilitation Research (NIDRR) Traumatic Brain Injury (TBI) Model Systems of Care. The TBI Model Systems (TBIMS) are involved in a prospective, longitudinal multi-center effort to examine the course of recovery and outcomes following TBI. Each of the 17 centers provides a coordinated system of emergency care, acute neurotrauma management, comprehensive inpatient rehabilitation and long-term interdisciplinary follow-up services. Research focuses primarily on: 1) developing and demonstrating a model system of care for persons with TBI, stressing continuity and comprehensiveness of care; and 2) maintaining a standardized national database for innovative analyses of TBI treatment and outcomes.

### Waiting Resources

<http://www.waiting.com/waitingres.html#anchor2273046>

Links for traumatic brain injury sites, acquired brain injury, epilepsy, government agencies, medical pages, and many others. Sites provided by the Brain Injury law Office.

### NIH Consensus Statements: 109. Rehabilitation of Persons With Traumatic Brain Injury

[http://odp.od.nih.gov/consensus/cons/109/109\\_statement.htm](http://odp.od.nih.gov/consensus/cons/109/109_statement.htm)

National Institutes of Health 1998 consensus statement providing information regarding effective rehabilitation for persons who have suffered a traumatic brain injury (TBI) and presents the conclusions and recommendations of the consensus panel regarding these issues.

### Rehabilitation of Persons with Traumatic Brain Injury

<http://www.nlm.nih.gov/pubs/cbm/tbi.html>

Links: brain injury, head injury, TBI, ABI, TBI for survivors & caregivers.

### Brain Center

<http://www.braincenter.org/>

Information and resources on acquired brain injury provided by the Brain Injury Association of Kentucky.

### Coma and Anoxic Brain Injury: Links for Information

<http://www.paxconsulting.com/coma.html>

Links for coma and anoxic brain injury, general medicine, alternative medicine plus related associations and hotlines.

### The BRAIN BOOK System

<http://www.brainbook.com/>

Compensatory skills training program for persons with brain injury.\_

### American Brain Tumor Association

<http://www.abta.org>

### Inside View Traumatic Brain Injury Newsletter

<http://www.callamer.com/~cns/cns/insidem.html>

Quarterly newspaper dedicated to traumatic brain injury issues published by the Centre for Neuro Skills.

### Traumatic Brain Injury Resource Guide

<http://www.callamer.com/~cns/>

Various resources including glossary of brain injury and related terms, brain injury articles, assessment scales, a brain map and description of functions of parts of the brain, neurolinks, conferences, pharmacology, rehabilitation services, and other information.

### The Brain Injury Recovery Program

<http://www.brainrecov.com/>

A multidisciplinary program of neurorehabilitation and community re-integration. Primarily a commercial site with little information.

### Head Injury Society of New Zealand Home Page

<http://www.head-injury.org.nz/>

Mission of this site is to provide basic information for people who are newly introduced to brain injury by the injury or illness of a friend or relative. The site is also a link between industry professionals and local support groups plus allowing people in recovery from head injury to talk to each other by e-mail and to be advocates for their own needs. Links to other health and medicine as well as other science sites. Recommended.

### NeuroScience Center

<http://www.neuroscience.cnter.com/>

Collection of sites and inks containing commercially and freely provided information (articles, software offers, events calendar, facilities for referrals, etc.) that is updated on regular schedules. Recommended.

### Brain Injury Association of Tennessee Homepage

<http://home.earthlink.net/~biat/ourweb.htm>

Facts about the brain, who sustains brain injuries, behavioral characteristics of brain injury, safety and prevention, glossary of terms, support group meetings, upcoming events and information, plus links to other great pages. Quite good.

### International Center for Clubhouse Development

<http://www.iccd.org/>

Organization to build and coordinate a strong international network of clubhouse model programs. Clubhouses are founded on the realization that recovery from serious mental illness must involve the whole person in a vital culturally sensitive community. Emphasis is on respect, hope, mutuality and unlimited opportunity to access the normal worlds of friendship, housing, education and employment.

#### American Academy of Neurology

[www.aan.com/cgi-bin/whatsnewlink.pl?loc=%2fpublic%2fnewsreleases](http://www.aan.com/cgi-bin/whatsnewlink.pl?loc=%2fpublic%2fnewsreleases)  
Information about neurology and the academy for members, with some information for the general public.

#### Traumatic Brain Injury (TBI) Support Groups

<http://www.neuroskills.com/rehab/bia.html>

Listing of national and state brain injury support groups in the United States and Canada, including a TBI research database.

#### Working Effectively With Employees Who Have Sustained a Brain Injury

[http://janweb.icdi.wvu.edu/kinder/pages/brain\\_injury.html](http://janweb.icdi.wvu.edu/kinder/pages/brain_injury.html)  
Provides information on ADA and issues related to hiring an individual with a traumatic brain injury, selecting accommodations for employees, and training tips.

#### The Institute for Cognitive Prosthetics

<http://www.brain-rehab.com/index.htm>

Applies computer technology to assist persons with brain injuries in everyday activities

#### Webpage

[http://www.links2go.com/topic/Brain Injuries](http://www.links2go.com/topic/Brain%20Injuries)

A plethora of links dealing with all types of topics on Brain Injuries Brain Train: Articles for Survivors and Families

<http://www.brain-train.com/articles/articles.htm>

A series of articles in various relevant topics prepared for presentation to various support groups that are designed for family members and survivors rather than professionals.

#### Brain Train Cognitive Retraining Software

<http://www.brain-train.com/Brain%20Train/brain.htm>

Cognitive Retraining Software, OTHER SOFTWARE Freeware/Shareware ARTICLES for designed for family members and survivors.

#### PTSD due to Traumatic Medical Experiences

[http://www.onelist.com/subscribe/iatrogenic\\_ptsd](http://www.onelist.com/subscribe/iatrogenic_ptsd)

Web site for persons sustaining Post-traumatic Stress Disorder due to Traumatic Medical Experiences, or to something that happened in our hospitals, clinics, or doctor's offices, or something caused by medical

staff / mishaps (or iatrogenic PTSD). Subscribing is easy, as is unsubscribing at any time..

#### Villa Martelli Disability Resources

[Http://villaMartelli.com](http://villaMartelli.com)

The Villa is a comprehensive listing of some of the most useful links for professionals and patients who assess, treat, or cope with physical or neurologic injury or impairment, neuromuscular diseases, musculoskeletal disorders, chronic pain, and more. Frequently updates links / resources include numerous organizations, medical, psychological assessment and practical treatment strategies, assessment and treatment reviews, some of the newest treatment methodologies, support groups, list serve groups, assistive technology, computer applications, downloadable information and books, newsletters, government resources, and much more.

### **5. Brain Injury Listserv Groups**

The following are a list of Brain Injury Listserv Groups obtained through a continuing search which employed various search engines and identified links from known sites and organizational home pages and other sources, with brief summary reviews of content. Information about subscription is also provided where available.

### **6. Brain Injury Forums and Listserv Communities**

The following are a list of Brain Injury Forums and Listserv Communities obtained through a continuing search which employed various search engines and identified links from known sites and organizational home pages and other sources, with brief summary reviews of content. Information about subscription is also provided where available.

### **7. Specific Post Traumatic Headache and Head Pain Related Web Sites**

The following are a list sites specifically relevant to headache and head pain (again, identified through a continuing search employing various search engines and identified links from known sites, organizational home pages and other sources) with brief summary reviews of content.

### **8. Medical Directories**

The following are a list medical directories, with descriptions, that provide selected searches for specific medical information.

### Achoo

<http://www.achoo.com>

One of the largest healthcare databases on the Internet for web sites on a specific topic targeted by keyword, geographical location, information type. A directory allows finding a web site using a comprehensive category structure based on internationally accepted MeSH (Medical Subject Headings). Query up to 6 search engines at one time. Search Medline (NLM) and Pre-MEDLINE and other related databases and search The Merck Manual of Diagnosis and Therapy used

### Healthfinder

<http://www.healthfinder.gov>

A free gateway to reliable consumer health and human services information developed by the U.S. Department of Health and Human Services. It provides selected online publications, clearinghouses, databases, web sites, and support and self-help groups, as well as government agencies and not-for-profit organizations that produce "reliable" information.

### HealthWeb

<http://www.healthweb.org>

Provides links to specific, evaluated information resources on the Web selected by librarians and information professionals at leading academic medical centers in the Midwest.

### HealthAtoZ

<http://healthatoz.com/>

Allows searching over 50,000 professionally reviewed health & medical Internet resources, with emphasis on family health as well as PubMed access and numerous other resources.

## 12. Relevant Medical Sites

The following are a list of sites relevant to general medical topics which generally include some information pertinent to brain injury (again, identified through a continuing search employing various search engines and identified links from known sites, organizational home pages and other sources). Brief summary reviews of content are included..

### Abstracts Online

<http://www.elsevier.nl/locate/ssmabsonline>

Provides abstracts from articles in the social sciences and medicine.

### A Guide to Medical Information and Support on the Internet

<http://www.geocities.com/HotSprings/1505/guide.html>

Offers resources for utilizing the different areas of the Internet to access medical information and support groups.

### Alternative Health News Online

<http://www.altmedicine.com>

This site reflects an unusual level of objectivity in this volatile specialty filled with wild claims and provides straight, objective and responsible information about vitamins, minerals, hormones, amino acid supplements and alternative therapies. Received positive review in Lancet.

### American Academy of Pediatrics

<http://www.aap.org/>

Home page of the American Academy of Pediatrics. Limited information or resources available for non-members.

### American Medical Association (AMA)

<http://www.ama-assn.org/>

Site for both physicians/members and members of the public with general information on many aspects of health/medicine including specific an atlas of the human body, a medical glossary, common laboratory or radiology tests, an interactive health module in which the user enters their own health information, etc.

### Avicenna Medline

<http://www.avicenna.com/>

Offers a variety of searches including Outlines in Clinical Medicine and AIDSline. Free registration required.

### Centers for Disease Control (CDC)

<http://www.cdc.gov/>

Home page of the Centers for Disease Control whose mission is to promote health and quality of life by preventing and controlling disease, injury, and disability. Many good links including data and statistics, an extensive list of health topics with very good information, traveler's health, etc.

### Clinical Trials (experimental drug studies)

<http://www.centerwatch.com/>

The CenterWatch Clinical Trials Listing Service website contains information on clinical trial medication research: general search on clinical trials, new drug research centers and therapies, and industry provider profiles. In addition, other resources and clinical industry job opportunities are provided.

### Clinician's Computer-Assisted Guide to the Choice of Instruments for Quality of Life Assessment in Medicine

<http://www.qlmed.org/index.htm>

A compendium of downloadable (many are free) assessment instruments and descriptive and other information, many with over 100 bibliographic references, including the following areas and more: general medical illnesses, various cancers, and various cardiovascular, neurologic, respiratory, rheumatologic and other diseases, along with surgery rehabilitation, survival/ quality of survival, and domain specific symptoms (e.g., fatigue, cognition, anxiety, anorexia, depression, pain, etc.)

#### Computer Related Repetitive Strain Injury

[http://learn.ouhk.edu.hk/~u123/on\\_unit/mirror2/rsi.htm](http://learn.ouhk.edu.hk/~u123/on_unit/mirror2/rsi.htm)

Information on etiology, prevention, treatment and books, along with links in many relevant areas, including management of pain related symptomatology.

#### Cumulative Trauma Disorder

<http://www.emporia.edu/ibed/jour/jour11/tinabr~1/html/index.htm>

Offers information, links and a bibliography relating to cumulative trauma disorders (e.g., repetitive strain injuries).

#### Diseases and Conditions (WWW Sites) from Yahoo

[http://www.yahoo.com/Health/Diseases\\_and\\_Conditions/](http://www.yahoo.com/Health/Diseases_and_Conditions/)

The Diseases and Conditions page of the Yahoo Health section. Extensive links.

#### DoctorDirectory.com

<http://www.doctordirectory.com/Doctors/Directory/Default.asp>

Provides online national searches, by state, for doctors, hospitals, specialties, health care plans, etc.

#### Doctor's Guide to the Internet

<http://www.docguide.com>

Website offers a comprehensive guide to medical disorders and provides a free Medical News e-mail edition / service which provides updates, on a weekly basis, about the latest medical news available at the Doctor's Guide Web site..

#### Doctor's Online

<http://www.geocities.com/HotSprings/1505/onlineDoctors.html>

Some Doctors and Health Professionals on the Internet respond to health and medical questions, with intention of educating the public. Includes links for a number of places on the Internet where you can submit a question to a doctor via posting at the site or e-mail, along with weekly listing of "live question and answer chat sessions" with doctors or health experts.

#### Family Village Library

<http://www.familyvillage.wisc.edu/library.htm>

Information about and links to other sites for many disabilities or medical conditions. For all conditions includes general information, who to contact, where to go to chat with others, personal accounts and related web sites.

#### Healthboards

<http://www.healthboards.com/>

Develop or join online communities with individuals with the same medical diagnoses. The following links regarding health and medical resources are provided: American Medical Association, Complete Home Medical Guide, Countway Web resources, Hardin Meta Directory, Healthlinks, Healthfinder, Healthy Way, Intellihealth, MediConf Next, Medsite, National Institutes of Health, Onhealth, The Merck Manual, and the World Health Organization.

#### Healthgate

<http://www.healthgate.com/>

Offers an extensive array of basic information on diverse health related issues, conditions and concerns, with divisions for both professionals and the general public. Offers a medical literature database search engine with Medline access and advanced search capabilities.

#### Health World Medline Search

<http://www.healthy.net/library/search/medline.htm>

Medline search engine of HealthWorld Online and Infotrieve. Free access.

#### Helix Medline Access

<http://www.helix.com>

Helix based access to Medline database.

#### Medscape

<http://www.medscape.com/Home/Topics/multispecialty/multispecialty.htm>

Offers free registration with probably the most extensive compilation of next day conference news summaries, treatment and clinical research updates and original e-med texts in 18 specialty areas with probably the largest collection of CME materials and the biggest drug/disease database (with interaction and indication information), free Medline medical database searching, email & more.

#### Mayo Clinic

<http://www.mayohealth.org/index.htm>



Mayo Clinic includes information on the following Centers regarding medical conditions: Allergy and Asthma, Alzheimers, Cancer, Children's disorders, Heart, Medicine, Nutrition, Men's and Women's conditions. Daily facts are also provided along with search drugs by name and various stretching techniques.

#### Mediconsult: Redefining Medicine Through the Internet

<http://www.mediconsultinc.com>

Offers the following information: "Mediconsult.com Patient Site, Advertising and Sponsorship Opportunities, HealthMEDIC – Private Label Content & Services, Market Intelligence Network Expert (MINE), Internet Marketing Consulting, MediXperts - New Access to Top Specialists, MediStore - Healthy Products for Healthy Lifestyles."

#### MedWeb: Electronic Newsletters and Journals

[http://www.gen.emory.edu/medweb/keyword/electronic\\_publications.html](http://www.gen.emory.edu/medweb/keyword/electronic_publications.html)

Large database of newsletters and journals on various medical topics, including brain injury.

#### Merck Publications

<http://www.merck.com/pubs/>

Webpage offers various Merck publications online.

#### National Institutes of Health

<http://www.nih.gov/>

Home page of the National Institutes of Health (NIH) whose mission is to uncover new knowledge that will lead to better health for everyone. Organizational or other information on the NIH as well as links to other medical resources and sites. Oriented to the professional and inclusive of some brain related topics.

#### National Organization for Rare Diseases

<http://www.rarediseases.org/>

A unique federation of more than 140 not-for-profit voluntary health organizations serving people with rare disorders and disabilities. Offers the acclaimed newsletter the Orphan Disease Update, along with searches of the Rare Disease Database, the Organizational Database, and Orphan Drug Designation Database for information on specific rare disorders, as well as a used medical equipment database, medication assistance programs and a wide array of useful links.

#### Neurofibromatosis Foundation

<http://neurofibromatosis.org/>

Home page of the National Neurofibromatosis Foundation. Separate site paths for patients and families versus scientists and healthcare

professionals. Extensive links with other health related sites, especially those involving tumors.

#### NlightN Medline Search

<http://www.nlightn.com/>

Site offers medline searches and full-text articles.

#### PharmInfoBYTES

<http://pharminfo.com/pharminfobytes.html>

Pharmaceutical information in PharmInfoNet's biweekly newsletter.

#### Physician's Guide to the Internet

<http://www.physiciansguide.com/newbies.html>

#### Royal Society of Medicine

<http://www.roysocmed.ac.uk/>

The Royal Society of Medicine is an independent, apolitical organization. Its aims are to provide a broad range of educational activities and opportunities for doctors, dentists, and veterinary surgeons, including students of these disciplines; and allied health-care professionals; to promote an exchange of information and ideas on the science, practice and organization of medicine, both within the health professions and with responsible and informed public opinion. Site primarily provides information directly related to the Society. Library and other services available for fellows of the Society or on a fee for use basis. Extensive links to other medical/health sites.

#### Studyweb Medicine

<http://www.studyweb.com/Medicine/>

Provides information on several medical disorders and anatomy, including numerous links.

#### The Internet Pharmacist

<http://www.internetpharmacist.com/>

Provides information on interactions of drugs, allergies, food, and non-prescription medications. Site answers questions, states side-effects, and more information regarding specific medications.

#### World Health Organization

<http://www.who.ch>

The objective of WHO is the attainment by all peoples of the highest possible level of health. Health, as defined in the WHO Constitution, is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. In support of its main objective, the Organization has a wide range of functions. Site

contains organizational or other information on WHO plus extensive links to many health topics and other medical/health information.

## 9. General Health / Health Care

The following are a list of sites relevant to more general health and health care topics which generally include some information relevant to neurologic topics, with brief summary reviews of content.

### Columbia University Complete Home Medical Guide

<http://cpmcnet.columbia.edu/texts/guide/>

Columbia University College of Physicians and Surgeons site with sections on using your health care system, new approaches to wellness, symptoms and diagnoses, first aid and safety, treatment and prevention of disease, drugs and their use. Good basic discussion of multiple topics within each of these areas.

### Consumer Health Information

<http://healthfinder.gov/>

Free gateway to reliable consumer health and human services information developed by the U.S. Department of Health and Human Services. Healthfinder® can lead you to selected online publications, clearinghouses, databases, web sites, and support and self-help groups, as well as the government agencies and not-for-profit organizations that produce reliable information for the public.

### Drugquest

<http://www.drugquest.com/>

Site providing information about pharmaceuticals and ordering prescription medications without a prescription over the Internet.

### Health and Disability-Related Websites

<http://sargon.mmu.ac.uk/rindex.html>

Links to extensive sites providing good information on numerous health and disability related issues.

### Health and Science: One in Four Has Trouble Getting Medical Care, Survey Shows

[http://www.nando.net/newsroom/ntn/health/100797/health3\\_3736\\_noframes.html](http://www.nando.net/newsroom/ntn/health/100797/health3_3736_noframes.html)

Bulletin of the Health and Science section of Nando Media, an online publishing venture (<http://www.nandomedia.com/>).

### HealthWorld Online

<http://www.healthy.net/>

HealthWorld Online (HWO) is a very comprehensive global health network, with a strong focus on time-tested systems of traditional health care from around the world, and on integrating both alternative and conventional health information. HWO is committed to fulfill the public and professional demand for reliable, integrative health, wellness and medical information, products and services. Their stated goal is to create the means for individuals and society to transition away from today's "sick-care" system of managed care to a "well-care" system of "Self-Managed Care" through information that covers the full spectrum of health care disciplines and options HealthWorld Online attempts to provide, at no charge, a full scope of "empowering information"

### Intelihealth

<http://www.intelihealth.com/>

The web page for the joint venture of Aetna U.S. Healthcare® and Johns Hopkins University and Health System provides extensive links to a wide range of medical and related sites.

### Mayo Clinic Health Oasis

<http://www.mayohealth.org/>

Links to information on a wide variety of medical issues plus links to other medical and drug organizations.

### Medline Advanced Health Search

<http://www.healthgate.com/HealthGate/MEDLINE/search-adv.shtml>

The HealthGate Data Corp. Advanced Medline search with links to several other databases.

### Onhealth: Your Personal Guide to Health

<http://www.onhealth.com/ch1/0,1091,,00.htm>

Site with extensive (general) medical information and resources.

### QuackWatch: Your Guide to Health Fraud, Quackery, and Intelligent Decisions

<http://www.quackwatch.com/>

Quackwatch, Inc., a member of Consumer Federation of America, is a nonprofit corporation whose purpose is to combat health-related frauds, myths, fads, and fallacies. Its primary focus is on quackery-related information that is difficult or impossible to get elsewhere.

### Reuters Health Information

<http://www.reutershealth.com/news/docs/199708/19970801clc.html>

Available to Reuters Health Information subscribers.

### The Virtual Medical Center

<http://www.medicconsult.com/mc/mcsite.nsf/conditionnav/homepage>  
 A network of doctors, nurses, pharmacists, dietitians, researchers, writers, computer specialists, business executives and others committed to interactive health care promotion by including information on news in health research, live events (upcoming and past transcripts), daily chats and interactive forums, including information regarding diagnosis, treatment, and prevention of a wide array of health problems. Includes 40+ bulletin boards moderated by physicians, therapists and attorneys, feature stories, online Health Information, nutrition bytes, PharmInfo bytes and weekly newsletters in many areas, all with free subscriptions..

### WebMD

<http://www.shn.net/corp.html>

Site with extensive (general) medical information and resources. Free membership.

### Yahoo News: Health Headlines

<http://www.yahoo.com/headlines/health/>

Current medical headlines or issues plus links to other medical sites.

## **10. General Reference Sites**

The following are a collection of generally useful reference sites that have more general relevance to medicine, social sciences and, more indirectly, neurologic disorders.

- Comprehensive medical and health information site with a search engine: [www.medexplorer.com](http://www.medexplorer.com)
- Medical and health search engine: [medguide.net](http://www.medguide.net)
- Medical Word Search engine: [mwsearch.com](http://www.mwsearch.com)
- The Digital Librarian:  
<http://www.servtech.com/~mvail/home.html>.
- Refdesk: <http://www.refdesk.com>.
- Excite's reference page: <http://www.excite.com/reference>.
- Yahoo's reference page: <http://dir.yahoo.com/Reference/>.
- An annotated list of links to specialized search engines and directories:
- <http://websearch.miningco.com/msub12-m03.htm?pid=2825&cob=home>.
- Engine for parallel searching news services, magazines and general journal articles from around the world:  
<http://www.newstrawler.com>.
- Directory of links to news, search engines, research tools, etc.:  
<http://www.hotsheet.com>

- Collection of scholarly Internet resource collections:  
<http://infomine.ucr.edu/Main.html>
- Download sites for shareware, free and try-before-you buy programs, files and utilities: [shareware.com](http://shareware.com), [download.com](http://download.com), [filez.com](http://filez.com), [freewarearena.com](http://freewarearena.com).
- Customized search results findings sent directly to use specified e-mail boxes.
- For general news (designated categories, including medical, neurologic):[excite.com](http://excite.com), [newsedge.com](http://newsedge.com).
- For mental health news weekly summaries (with links): [psychwatch.com](http://psychwatch.com). For medical news: [medscape.com](http://medscape.com).
- For Continuing Education credits: <http://CE-credit.com>.
- For designated health news: [healthscout.com](http://healthscout.com).
- For automatic designation of search engines to conduct queries and respond via e-mail whenever new web pages matching query terms are found, or when favorite web sites are updated, try this unique site: <http://informant.dartmouth.edu/>.

## **11. Conclusion**

The information superhighway has clearly revolutionized information technology. The opportunities for world wide sharing of information and improving healthcare are tremendous. However, in order to realize this potential, increased understanding of the communication and information technologies of the Internet are required. Brain injury rehabilitation technology is a rapidly growing area of healthcare and can only benefit from this technology. The present paper offers a brief introduction aimed at increasing appreciation of the Internet and enhancing its utility with regard to brain injury and its management and offers rudimentary guidelines for efficient accessing of information. Hopefully the procedures offered herein represent useful 'tools of the trade'. Finally, the results of a search for useful Internet links for professionals, as well as patients, family members and other interested persons who assess, treat or cope with brain injury are included.

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