

## Chapter 3

### ACCESSING FURTHER INFORMATION

This book attempts to summarise what is known in the medical literature about alternative medicine. But it is only a summary. In order to help you examine a subject that is of particular interest to you, references are liberally sprinkled throughout the book. The aim of this chapter is firstly to explain to you how to find, interpret and use those sources. Secondly, since we are moving progressively into the information explosion of the electronic age, ways to access what is available on the Internet will be described briefly.

#### **Alternative medicine and the scientific literature**

Such is the public interest in alternative medicine, that the medical profession over the last few years has begun to pay more and more attention to various facets of the subject. There has now been a number of rigorous investigations of alternative medicine using established scientific principles, including randomised double-blind placebo-controlled trials. It is these studies which provide the backbone for this book. It rests on a very simple premise: all the studies reviewed must be scientifically valid.

To this end, only researches reported in reputable medical journals have been considered. The majority of these articles have appeared in well-known, accessible and outstanding journals such as *The Lancet*, *British Medical Journal*, the *New England Journal of Medicine* and the *Journal of the American Medical Association*. It is very difficult for researchers to have their articles published in these journals; only the very best are accepted. A demanding process is followed whereby each submitted manuscript is sent to referees who are expert in the area. The referees recommend to the editor of the journal whether the paper be accepted, accepted after further research, or rejected. This same mechanism has also been applied by these journals to articles dealing with alternative medicine. The journals most commonly referenced in this book are shown in Table 1.

#### *The credentials of authors*

provides you with an opportunity to make an assessment of the qualifications and experience and hence the credibility of the researchers. This in turn may impact on your readiness to accept their findings. Qualifications that are generally awarded by reputable institutions and usually may be accepted as indicating a proper scientific and/or medical training are indicated in Table 2. In contrast stand the following

Table 1. Journals that have been cited more than 5 times in this book.

	<b>Number of times</b>
<i>The Lancet</i>	83
<i>British Medical Journal</i>	68
<i>New England Journal of Medicine</i>	41
<i>Journal of the American Medical Association</i>	30
<i>Medical Journal of Australia</i>	26
<i>Nature</i>	8
<i>Journal of the Royal Society of Medicine</i>	8
<i>Archives of Internal Medicine</i>	8
<i>Annals of Internal Medicine</i>	7
<i>Experientia</i>	6

examples of alternative qualifications that orthodox medicine and orthodox science do not accept as *bona fide*, that is, faithful to the truth:

BAc	bachelor of acupuncture
DAc	diploma or doctor of acupuncture
DC	diploma or doctor of chiropractic
DHom	diploma or doctor of homeopathy
DO	diploma or doctor of osteopathy
ND	diploma or doctor of naturopathy

Most frequently, doctorates are given in the United States of America whereas diplomas are awarded in the United Kingdom.

*How does one read a reference?*

It is impossible in a book of this size to provide complete details and there may be some occasions in which you want to know more. In order that you can follow up details of a subject that is of particular interest to you, this book is heavily

Table 2. Degrees and other qualifications that are generally acceptable scientifically and are awarded by reputable universities and other institutions.

<b>Initials</b>	<b>Degree</b>	<b>Comments</b>
BA	bachelor of arts	
BAppSc	bachelor of applied science	British Commonwealth
BDS	bachelor of dental surgery	primary dental degree, British Commonwealth
BS	bachelor of science	North America
BPharm	bachelor of pharmacy	
BSc	bachelor of science	British Commonwealth
BSN	bachelor of science in nursing	North America
DDS	doctor of dental surgery	primary dental degree, North America
DSc	doctor of science	
FACP	fellow of the American college of physicians	
FACS	fellow of the American college of surgeons	
FRACP	fellow of the royal Australasian college of physicians	
FRACS	fellow of the royal Australasian college of surgeons	
FRCP	fellow of the royal college of physicians	England
FRCGP	fellow of the royal college of general practitioners	Britain
FRCS	fellow of the royal college of surgeons	England
FRCPA	fellow of the royal college of pathologists of Australasia	

FRCPC	fellow of the royal college of physicians of Canada	
MB,BS	bachelor of medicine and bachelor of surgery	primary medical degree, British Commonwealth
MA	master of arts	
MD	doctor of medicine	a. primary medical degree, North America b. higher medical research degree, British Commonwealth
MS	master of science	North America
MSc	master of science	British Commonwealth
RN	registered nurse	
PhD	doctor of philosophy	

referenced so that you have access to the medical literature. References appear as footnotes throughout the chapters. Each reference is indicated in the text by a number appearing as a superscript such as <sup>8</sup> then details are provided in a footnote with the same number. If you look at reference 8 in chapter 2 on Methods of Medical Research, you will see the format that all references follow. First comes a list of the authors, in this case, S Hellman and DS Hellman. This is followed by the title of the article they wrote. Next appears the journal that the article was written in; in this instance, it is the *New England Journal of Medicine*. Journals are usually issued many times each year. Many issues are brought together in a volume which is given a sequential number; this article is to be found in volume 324. Within each volume, each page is numbered sequentially, so this article is found on pages 1585 to 1587. Finally, the year of publication is detailed; this paper was published in 1991.

Once you know the reference, the next problem is to find it. Most of the articles referred to in this book are taken from journals that have a very wide distribution. You may find some of them in the public library in your city. You will certainly find them in the medical library of the hospital or university nearest you. Within medical libraries, journals are usually classified and located in one of two ways. The simpler method is adopted by the library of the hospital in which I work; journals are shelved in alphabetical order. Thus, the *British Medical Journal* can be found under “B” and the *New England Journal of Medicine* under “N”. Other libraries, such as the Barr Smith library of the University of Adelaide, use the Dewey classification system. Each journal is given a unique number that

may or may not have some sort of logical grouping. You look up the library catalogue under the name of the journal in which you are interested. Most modern libraries now have this information on-line in electronic form on a computer. Thus, in the Barr Smith library, if one looks up *The Lancet*, it transpires that this journal has the number 610.5 L24 and can be found on the shelves so labelled.

Once you have found the relevant article, there will be no stopping you, for each article usually gives a number of relevant references, and you can follow the trail for as long as you wish.

### **Electronic searches**

#### *Using Medline (PubMed)*

When I first began to collect material for this book nearly 20 years ago, I had to repair to the library, seek out a weighty tome of the *Cumulative Index Medicus*, look up a topic of interest such as acupuncture, read all the entries which gave the authors= names, title, journal, volume, page numbers and year of publication, then laboriously copy it out. Then I had to find the journal in the library stacks and see if the article contained anything of interest.

Now I sit at the desk in my office and interrogate the computer. This is connected to the hospital network which is in turn connected to *Medline* which is the electronic form of the *Index Medicus*. This is prepared from the US National Library of Medicine's bibliographic database and collates most of the thousands of medical and medically-related scientific journals that are published each year. Not only does *Medline* give the same information as the *Index Medicus*, but it provides an abstract (or summary) of what the article is all about. If you are lucky, the whole article may be available at no charge. What is more, I can print this on paper or copy it to a word-processor. Instantaneous information.

In the early 1990s, Medline became available electronically on compact disc. Since June 1997, the United States National Library of Medicine and National Institutes of Health has provided free access to Medline on the Internet where it is known as PubMed. It may be found at the following address:

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi>

Let us say that you wanted to find out information published between the years of 1991 and 1995 about meditation. To do that, I typed in the command line MEDITATION. When I did that, I found 71 references which I could then examine at leisure. If you want

to narrow your search, you could, for example, type the words MEDITATION and ASTHMA and you would get only articles on that topic.

The great advantage of the *Medline* is that it enables you to find out what the world of medical science is saying. It used to be that this was likely to be fairly reliable. Until recent times, strict criteria were applied to what journals were indexed on *Medline* and this was a measure of their reliability. Since the establishment of the National Center for Complementary and Alternative Medicine within the National Institutes of Health in the USA, however, all sorts of alternative journals are indexed. You can even search specifically for alternative medicine; it is called CAM on PubMed and can be found at [www.nlm.nih.gov/nccam/camonpubmed.html](http://www.nlm.nih.gov/nccam/camonpubmed.html). This now makes it much more for the non-expert to differentiate orthodox from alternative journals and find out what the medical profession is saying. In this book, I have used only what I consider to be the scientific and medical literature.

#### *Alternative medicine on the Internet*

Separation of the wheat from the chaff is even more difficult on the general Internet. Many people now have access to the Internet from computers at home or at work. An increasing amount of information about various aspects of alternative medicine is now available. Most of this material is put in place by those who either want to sell something or wish to promote their ideas. In contrast to the scientific medical literature where almost everything is vetted by other experts in the field before it is published, there are no such restrictions on the Internet. Unfortunately, there are growing numbers of dubious and unverified health claims on the Internet which regulatory authorities are powerless to stop, especially if the source is in another country. Examples of such extravagant claims are:

*Sea cucumber* – “shown to be effective in the treatment of osteoarthritis and “rheumatoid arthritis

*Shark cartilage* – “shown to effective in inhibiting tumour growth and cancer”

*Asparagus extract* – “effectively restrains ... middle as well as late stage tumours”

*Pine bark extract* – “improves circulation and enhances cell vitality”

Table 3. Some sites on the Internet to provide you with starting points for whatever interests you.

<a href="http://www.pitt.edu/~%7Ecbw/altm.html">http://www.pitt.edu/~%7Ecbw/altm.html</a>	alternative medicine home page which provides a jumping off station to many areas
<a href="http://www.doubleclickd.com/wwwellness.html">http://www.doubleclickd.com/wwwellness.html</a>	another alternative and holistic medicine home page
<a href="http://acupuncture.com">http://acupuncture.com</a>	acupuncture
<a href="http://prodigy.com/CT/doc/doc.html">http://prodigy.com/CT/doc/doc.html</a>	chiropractic
<a href="http://www.herbnet.com/menu.html">http://www.herbnet.com/menu.html</a>	herbs
<a href="http://www.dungeon.com/home/cam/homeo.html">http://www.dungeon.com/home/cam/homeo.html</a>	homeopathy
<a href="http://www.hic.net/hicpersonal/y/yoda/">www.hic.net/hicpersonal/y/yoda/</a>	hypnotherapy
<a href="http://pandamedicine.com">http://pandamedicine.com</a>	naturopathy
<a href="http://www.medlib.arizona.edu/educ/nutritional.html">http://www.medlib.arizona.edu/educ/nutritional.html</a>	nutrition

Clearly, you cannot believe everything you read on the net. Some information is simply dangerous.<sup>1</sup> It is easy to find links to hundreds of mail-order companies, mostly located in the United States, which offer a wide variety of remedies for almost any ailment.<sup>2</sup>

Given these caveats, you may well find something of interest when you surf the net. You can certainly find out what many practitioners of alternative medicine claim. So, how does one go about it?

I will assume you know how to get onto the Internet and you are using a browser such as Microsoft Internet Explorer, Mozilla Firefox or Netscape Navigator. Once you have done that, you need to go to the site you are interested in or browse around a number of potential sites. If you want to look up a topic and you do not know where to find it, then a good place to start is by interrogating what is known as a search engine.

<sup>1</sup>Schmidt K, Ernst E. Assessing websites on complementary and alternative medicine for cancer. *Annals of Oncology* 15: 733-742, 2004

<sup>2</sup>Bower H. Internet sees growth of unverified health claims. *British Medical Journal* 313: 381, 1996

This is a site which allows you to type in a word or a combination of words and it then tells you all the sites it knows about which contain that word or those words. Several popular search engines are listed below:

google - <http://www.google.com>

lycos - <http://lycos.cs.cmu.edu>

yahoo - <http://www.yahoo.com>

If you are in Internet Explorer, type <http://www.google.com> (but do not include the inverted commas) in the box next to where it says "Address" then press enter or click on the Go button. If you are in Netscape, type <http://www.google.com> (but do not include the inverted commas) in the box next to where it says "search" then click on the search button. The Google search engine will appear. In the box below *Search the web@* etc, type in the word or words in which you are interested. For example, when I typed "garlic and health", about 40,000 matches were found. The first one suggested was "Alternative Medicine Herbal Health Product: Mullen Garlic". There was then a brief description followed by a web site. When I clicked on that, I was transferred to the site and was told about mullen-garlic herbal ear drops, what it was supposed to do, how to administer it and some cautions. I then clicked on "Price Index" and found out how much it cost. I then clicked on "Ordering information" and was told how I could purchase the item from Herbal Resources Inc. in Kansas, USA. Interestingly, there appeared on the bottom of one of the screens "Offer void where Prohibited" but no information was given as to where that might be.

The variations on the theme are unending and you can spend, hours, days or weeks browsing the web just on alternative medicine alone. Some sites that you might find helpful to start with are listed in Table 3. Nevertheless, I would encourage you to begin with PubMed and concentrate on those journals that look to be mainstream medical or scientific publications.

## Seek and ye shall find!

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