

A Cancer Patient's Guide to Complementary and Alternative Medicine, 2nd edition

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We would also like to acknowledge the expert review and input
provided by Lynne Jahnke, MD
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***The information provided in this guide is not meant to serve as
medical advice. Before making any change in your health care, please
consult a physician familiar with your situation.***

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A Cancer Patient's Guide to Complementary and Alternative Medicine

I. Understanding Your Choices

A. Using this Guide

People who have cancer and those close to them often feel overwhelmed with information. There is so much information to gather, try to understand, and then use in making decisions. Where should you have cancer treatment? Who should you choose to provide your care? What kinds of treatments should you have? Over the past few years, more people have started to ask these same questions about treatments that are out of the mainstream, often called complementary or alternative therapies. Finding good information about complementary and alternative medicine (often shortened to 'CAM') can be even more difficult than getting information about more standard types of treatment. This guide has been developed to help in this process.

It is not our intent to suggest that any of the therapies described in this guide *should* be pursued. Instead, the goals are to:

- help you understand where complementary and alternative medicine (CAM) fit into the big picture of cancer care
- suggest some sources of information that provide accurate and balanced information
- provide some strategies to evaluate information, therapies, and health care providers
- suggest strategies to develop partnerships with your health care providers
- provide basic information about CAM therapies most often asked about by cancer patients

What you do with the information presented in this handbook is your decision. You may or may not choose to pursue any of the reviewed therapies and/or follow any of our suggestions. What is most important, however, is your realization that there are things you can do to help yourself, certainly to live better and, perhaps, to live longer. Your overall well-being is a vital component in your journey with cancer. We therefore encourage you to listen to your body, learn about the therapies that may be of interest to you and communicate your needs to those involved in your care. We hope that this handbook is a resource to patients, like you, seeking to become actively engaged in their health and wellness.

B. Uses of CAM

There are several ways in which cancer patients use CAM. Most commonly, people use CAM to improve their overall health and wellness. Sometimes, people use CAM to manage specific symptoms associated with their disease or its treatment. Least frequently, people use CAM in an attempt to directly treat the cancer. This guide will address each of these ways to use CAM separately.

The most common reason for using CAM is **to improve one's overall wellness**. Wellness implies much more than absence of disease. Wellness involves achieving one's optimal health, considering physical, emotional, mental, and spiritual factors. Many complementary and alternative therapies rely on the recuperative power of the human body and the potential for certain stimuli to enhance this natural healing.¹ Healing can take place at the physical, emotional, mental or spiritual level.² You might be surprised by some of the 'treatments' that fall under this category. They may well be activities you are already involved in, such as attending a support group, prayer or being involved with a spiritual community, eating a nutritious diet, exercising, or listening to music.

Another way in which people with cancer use CAM is **to manage symptoms** associated with their disease or treatments. These treatments tend to be drawn from one of two general strategies. Some are based on the mind-body connection, using the mind to influence the body's responses. Others are herbal or 'neutraceutical' (use of diet as medicine) strategies to reduce symptoms. Symptoms most commonly treated with CAM include pain, nausea, and hot flashes or other estrogen-deficiency symptoms.

Finally, some people choose to use CAM **as a direct treatment for cancer**. They may take CAM therapies in addition to their conventional cancer treatments or instead of conventional treatments. This is certainly the most controversial use of CAM therapies.

Now that we've talked about how complementary and alternative medicine is used by cancer patients, the next section will discuss just what is complementary and alternative medicine? How does it fit into the big picture of cancer treatment?

C. Understanding cancer treatment options and terminology

Part of the difficulty in exploring treatment options is the confusing terminology used in medical literature. Terms used to describe different categories of treatment include *investigational, proven, standard/conventional, complementary, alternative* and *integrative*^{3,4}. Understanding these terms will help you to evaluate the different options you may be considering.

Investigational treatments are those undergoing a carefully structured, closely monitored process to determine if they are effective treatments for cancer. Before a drug can be used regularly to treat patients, it is first studied and tested in laboratory test tubes and then in animals. If discovered to be a promising treatment, further studies in humans are done. A cancer treatment clinical trial is a research study that evaluates a new treatment or combination of treatments in humans. Evaluating a new drug or therapy is a long process that involves three distinct phases, each with a different goal.

In Phase I clinical trials, the new drug is given to a small number of patients. The goals are to determine the best method to administer the drug and the dosages that can be safely administered. Doses of the drug are increased throughout Phase I treatments until the maximum dose that can be safely administered is determined. The information from a Phase I clinical trials is then used to design Phase II trials. In Phase II testing, the goal is to evaluate the effectiveness

of the treatment on specific cancer types. If researchers find that the new treatment shows some promise, evaluation can proceed to Phase III testing. In this last phase, the new treatment is compared directly with a standard treatment in order to determine which is most effective. As a result of this lengthy and careful process, *investigational* treatments may become *proven* treatments.

In summary, *proven* treatments are those which have gone through the aforementioned phases of clinical research and, as a result, can be incorporated as part of the standard therapy for a specific type of cancer.

Standard, or *conventional*, treatments are those that have found to have benefit for a specific population of patients and are typically taught as part of the curriculum for medical students or other health care professionals. For some types of cancer, standard therapy may cure disease or significantly prolong survival. In other cases, standard therapy may have a less profound impact on the likelihood of remission. Presently, surgery, radiation therapy and chemotherapy are the most common *conventional* treatments for cancer in this country. There are also standard, conventional treatments to manage side effects or symptoms associated with cancer and cancer treatments. *Standard* treatments are culturally defined, however, which means what is considered standard in one culture may be different from another. For example, cancer therapy in the U.S. is more aggressive than any other technologically advanced nation.⁵ Other countries, such as France and Germany, often take a gentler approach to cancer treatment and are open to the use of homeopathy and naturopathy. Very few studies have looked at differences in cancer survival between developed nations. When differences are seen, it is difficult to know whether those differences are due to stage at diagnosis, conventional treatments used, complementary / alternative treatments used, or other patient variables. Currently, there are no known differences in treatment outcome between advanced nations.⁶

Complementary and *alternative* medicine (CAM) includes a broad range of healing approaches, therapies and philosophies. Generally, it has been defined as those treatments and healthcare practices not taught widely in medical schools, not generally used in hospitals, and not usually reimbursed by medical insurance companies, although this is rapidly changing. CAM therapies are used with the intent to reduce stress, improve well-being, prevent illness, avoid or minimize side effects and symptoms, and/or to control or cure disease. According to the National Cancer Institute, a treatment is called *complementary* when it is used in conjunction with conventional treatments.⁷ *Complementary* approaches may also be considered to *complement* the body's natural abilities to heal. *Alternative* therapy is the term often used to refer to treatments that are used in place of conventional treatments.⁷ The term *alternative* is also used to indicate treatments outside of conventional medicine used with the intent to treat the disease, as opposed to promoting wellness or managing symptoms. Depending on how they are used, some therapies are considered either complementary or alternative.

Central to CAM therapies is the concept of wellness and the relationship between the mind, body and spirit. Wellness is viewed as a continual process of searching for and using those tools that enable individuals to achieve a sense of well-being and a feeling of wholeness, even in the face of illness. Other unifying themes of complementary and alternative medicine include:⁸

- Spiritual values are important to health
- Maintain the injunction to do no harm
- Achieving and maintaining health is very different from fighting disease
- Personal experience is as reliable as scientific study in determining whether something is effective.

Integrative medicine is a term used to describe the combined offering of conventional and complementary therapies. Stressing prevention and self-care, it neither rejects conventional medicine nor blindly accepts alternative practices. It is through *integrative* medicine that the science and technology of conventional cancer medicine and the holistic approach of complementary medicine may be united in attempts to meet a patient's unique needs for healing.

Within integrated medicine, a patient is evaluated and treated as a whole. Using an individualized approach to treatment that involves the patient in his or her recovery, attention is paid to all physical, mental, emotional and spiritual signs of dysfunction.⁹ Because it draws from both conventional and CAM therapies, integrated medicine can offer a wider range of therapeutic options than either one alone. Treatment generally starts with the safest, less invasive therapies and moves to more invasive interventions as it becomes necessary.¹⁰

Wellness programs and CAM therapies which focus on what comprises health, causes illness and promotes emotional, physical and spiritual well-being are at the foundation of our progress toward a system of integrative medicine, a combination of the best offerings of both conventional and CAM therapies. A fully integrated medical approach encourages the development of relationships between health care providers, whether CAM or traditional practitioners, in order to provide individualized, coordinated and team-oriented care. It has been suggested that "the soothing attention of complementary practices, including psychosocial care, along with the technical expertise of oncology practice is a merger that can greatly enhance patients' quality of life and satisfaction with care."¹¹

D. Understanding the Changes in U.S. healthcare

Our nation's current health care system is built upon a tradition of treating disease rather than restoring wellness. Despite phenomenal technical and pharmaceutical advancements in treatment of illness and disease, the limitations of the "high tech" approach are now becoming more obvious. These limitations include ignoring the impact of mental and spiritual health and well-being on disease. At the 1996 American Medical Association National Leadership Conference, Dr. Jeremiah Barondes stated that many physicians might not deal effectively enough with illness, elements he identifies as symptoms, anxieties and concerns that make people feel sick. Instead of an emphasis on promoting overall wellness, there has traditionally been a focus on treating disease, defined in biochemical terms, which is far removed from the person being examined.¹²

In contrast, many CAM therapies are founded on the belief that within all of us is a natural ability to heal. This philosophy is distinctly different than conventional medicine's traditional focus on the external techniques and technology needed for curing disease. CAM

practitioners characteristically adopt the approach of supporting and stimulating the healing potential within each individual.¹² Healing in this context extends beyond the curing of disease. It is viewed as an inner process that can take place at the physical, emotional, mental and/or spiritual level.¹³ This appreciation of healing, even in the absence of curing, combined with a “whole person” focus may offer one explanation for the ever-increasing use of CAM therapies in this country.

It has been reported that up to fifty percent of cancer patients in the U.S. now use complementary and alternative medicine, mostly in addition to their conventional treatment.¹⁴ This percentage may be even larger if practices such as prayer, journaling, diet and exercise are taken into account. The increase in the use of alternative medicine has been accompanied by more accepting attitudes of physicians. In 1998, the American Medical Association (AMA) ranked alternative medicine as the third most important topic for continuing research efforts. Thirty-four of the 125 U.S. medical schools offer training in alternative medicine. Residency programs (continuation of training after medical school) in "Integrated Medicine" are becoming increasingly available for physicians.¹⁴ Formal physician education programs in Integrated Medicine are being developed or are already in place at Duke, Harvard, University of Arizona, University of Massachusetts, Thomas Jefferson, University of California San Francisco and the University of Minnesota.¹⁵

II. An Overview of CAM

A. Our Approach

We recognize that cancer is a complex disease and that your experiences with cancer will differ from others around you. We also can appreciate the limitations of a medical system that is not integrative in nature as there is no one method that meets all needs of all people. Medical treatment that integrates several different types of treatment options, including conventional and CAM therapies, may be important to you. It is our belief that integrative medicine offers the most compassionate and comprehensive treatment approach to cancer. This handbook was developed to assist patients who desire an integrative medicine approach to their cancer treatment.

There are many reasons why integrating CAM therapies may be of interest to you. Perhaps you’ve been asking yourself, ‘What ELSE can I be doing for my health?’. Perhaps your growing interest in alternatives reflects a general dissatisfaction with the technologic and impersonal nature of modern medicine.¹⁶ Maybe you are looking for ways to manage the potential symptoms related to your conventional treatments. Perhaps you are interested in learning more about the CAM therapies proposed to treat cancer. In an effort to address these reasons, we have chosen to discuss the uses of CAM therapies based upon their placement in the following categories:

1. To promote wellness
2. To manage symptoms
3. To treat cancer

This approach may be different from other classifications you have seen or used. For example, to organize the wide and fast changing realm of CAM therapies, the National Center for

Complementary and Alternative Medicine (NCCAM) groups them into seven categories¹⁷. For cross-reference, we have included a listing of CAM therapies as categorized by the NCCAM in Appendix A.

B. Categories of CAM

Information sheets on all the strategies / therapies listed are provided in Section V.

1. Promoting wellness

a. Overview

Therapies in this category are generally regarded as theories and practices that try to prevent the development of cancer through lifestyle changes that promote overall wellness and health. Health-promoting lifestyle changes, appropriate for all people, cancer patients or not, may offer benefits such as less pain, less depression, improved cardiovascular status, improved immune function, greater mobility and physical independence, improved quality of life and, potentially, a longer life. The healthier your body, cancer aside, the better able you will be to withstand the side effects of conventional therapy.

b. List of strategies/therapies

Acupressure	Macrobiotics
Alexander Technique	Massage Therapy
Antioxidant Vitamins	Meditation
Aromatherapy	Melatonin
Ayurveda	Music Therapy
Art Therapy	Prayer and Spirituality
Biofeedback	QiGong
Craniosacral Therapy	Reflexology
Crystal Healing	Reiki
Flower Remedies	Rolfing
Garlic	Selenium
Green Tea	Tai Chi
Guided Imagery	Therapeutic Touch
Hydrotherapy	Vegetarianism
Light Therapy	Yoga

2. Managing symptoms

a. Overview

Therapies in this category are generally used in conjunction with conventional treatments to manage symptoms, side effects and pain. Similar to the category above, objectives include achieving a higher quality of life, better response to standard therapy, fewer side effects of treatment and symptoms of disease, and/or control of pain with less medication.¹⁸

b. List of strategies / therapies

Acupuncture	Hydrotherapy
Aloe vera	Hypnosis
Biofeedback	Massage therapy

Chiropractic Coenzyme Q10 Craniosacral therapy Guided imagery Homeopathy Hydrazine Sulfate	Meditation Native American Healing Naturopathic Medicine Saw Palmetto St. John's Wort Traditional Chinese Medicine
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3. Treating cancer

a. Overview

Therapies in this category are considered to be true alternative therapies, treatments that are used to treat cancer, often in place of conventional medicine. Mainstream physicians generally discourage this approach if conventional treatments have not been attempted. However, a few of these therapies (antineoplastons, Coenzyme Q10, mistletoe and PC-SPES) are under serious study and may become more accepted in the future.

b. List of strategies / therapies

714-X Aloe Vera Antineoplastons CanCell/Entelev Cartilage Cat's Claw Chaparral Chelation Therapy Coenzyme Q10 Coley Toxins Coriolus Versicolor Electromagnetic Therapy Essiac Fasting and Juice Therapies Gerson Therapy	Govallo Therapy Hoxsey Hydrogen Peroxide Immune Augmentation Therapy (IAT) Laetrile Livingston-Wheeler Therapy Mistletoe Modified Citrus Pectin MTH-68 Ozone Therapy Pau d' Arco PC-SPES Revici Method
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III. Information Sources

Before you can evaluate the various CAM therapies, you need to know where to obtain reliable information. This section discusses sources of information, including organizations, print resources and the internet. Print resources may be available through medical center or hospital libraries, public libraries, advocacy organizations, or bookstores and their websites. Information that is published through medical journals or publishing houses is subject to a review process. This is not the case, necessarily, with information available on the internet. Because anyone can put anything on the internet, we'd like to discuss in more detail things to consider in using internet information.

A. The Benefits and Pitfalls Encountered by Internet Consumers

In 1996, the internet emerged as a valuable source of consumer health information.¹⁹ There are thousands of sites to choose from that offer health-related information. These sites may post information from published medical books or journals, content developed by professional organizations or advocacy groups, discussions between patients, family, and others interested in cancer topics, or promotions of products or services. The material ranges in its accuracy, reliability and value from very good to very bad.

Although the internet provides many benefits as an information resource, it is an unregulated network. Anyone with access to a computer, modem and necessary software can create a Web site. Unlike most traditional forms of information, the content of a Web site does not need to be approved. Information can therefore be published and made available for the public even if it is false and/or misleading. Unfortunately, no regulatory body exists to ensure that consumers are not taken advantage of on the internet. Given this situation, it is in your best interest as an internet user to evaluate the information you locate in order to determine both its quality and value for your needs. On the internet, "caveat emptor" - let the buyer beware - are words to live by for the foreseeable future.²⁰

The explosion of information on the Internet led several federal and international agencies to become concerned that private companies and individuals might take advantage of unsuspecting healthcare consumers via persuasive Web sites. In 1995, an international conference on the use of the Internet in healthcare resulted in the creation an international initiative, Health on the Net Foundation (HON). HON is a non-profit organization dedicated to "realizing the benefits of the Internet and related technologies in the fields of health and medicine."²¹ To assist healthcare consumers sift through the thousands of medical Web sites offering advice and services, HON has developed a Code of Conduct for the provision of medical Web sites. The principles of conduct are:²²

1. Any advice provided by a Web site should only be given by medically/health trained and qualified professionals unless it is clear that the piece of advice offered is from a non-medically/health qualified individual/organization.

2. The information provided by a Web site should be designed to support, not replace, the doctor-patient relationship.
3. Confidentiality of data relating to individual patients and visitors to a medical/health Web site must be respected. The Web site owners undertake to honor or exceed the legal requirements of medical/health information privacy that apply in the country and state where the Web site is located.
4. When appropriate, the Web site should support embodied information by clear references to source data and, where possible, have specific HTML links to that data. The data when a clinical page was last modified should be clearly displayed.
5. Any claims relating to the benefits/performance of a specific treatment, commercial product or service will be supported by appropriate, balanced evidence.
6. The designers of the Web site should provide information in the clearest possible manner and provide contact addresses for visitors that seek further information or support. The Webmaster should display his/her E-mail address.
7. Support for the Web site should be clearly identified, including the identities of commercial and non-commercial organizations that have contributed funding, services or material for the site.
8. If advertising is a source of funding for the Web site, it should be clearly stated and include a description of the advertising policy adopted by the Web site owners. Advertising and other promotional material should be presented to viewers in a manner and context that facilitates differentiation between it and the original material created by the institution operating the Web site.

These are questions you might ask yourself to determine if the HON principles are being met.^{23,24}

Who maintains the site?

You are more likely to get legitimate information from an established medical institution like a hospital, research-oriented university or governmental organization. Private medical practitioners and organizations may have marketing, social or political agendas that can influence the type of material they offer. Try to weigh the information you receive against what you think is the intent of the author(s). According to Robert Harris, Professor of English at Southern California College, "information pretending to objectivity but possessing a hidden agenda of persuasion or a hidden bias is among the most common kind of information in our culture."²⁵

Is there a listing of names and credentials of those responsible for preparing and verifying the site's contents?

Look for a listing of the source of the information whether it is an author, editorial board or sponsoring organization. What is the education, training and/or experience in the field of these individuals? Answering the above questions may help to determine the author's reputation or standing among peers. Also look to see if the site is sponsored by a known and respected organization. Contact information should also be provided so visitors to the site can acquire additional information or have questions answered.

Does the site link to other sources of medical information?

In general, a reputable organization will not declare itself to be the only source of information on a specific health issue. Quality sites often feature more than one perspective on a health topic. Additionally, it is in your best interest to also compare the information you find on one site with others. Using other sources is a way of confirming the credibility of the information you previously found.

When was the site last updated?

Usually, the more current the site, the more likely it is to provide timely material. If you are looking for treatment information, look for sites that are updated weekly or monthly so that they contain accurate, up-to-date information. If a site has not been modified in months, it might contain outdated material. This is not so much a concern with information that focuses on the emotional and support aspects of cancer.

Does the site promote products?

You should be cautious when sites promote specific products that you can buy over the Internet. Because the Internet is constantly changing, the site you purchase from one week might not be in existence the following week if you have questions about the product.

Assessing the credibility of health and medical information in Internet news and chat groups is exceedingly important. Information in these forums is shorter-lived and often, the source is unidentifiable. Although these news and chat groups can provide reliable information about cancer and offer support to patients, they can also perpetuate misinformation.²⁶ Most services do not verify what is posted in their newsgroups or control what is "said" in chat rooms.²⁶ A Wall Street Journal article stated that, "Online communication has been widely heralded as a boon for the ill. Patients form support groups, sharing large pains and small triumphs; they critique wheelchairs and feeding tubes, discuss symptoms and doctors, or simply comfort and inspire each other. But...desperate patients can spread untested treatments and questionable practices...."²⁷ Treatment testimonials read about in chat rooms should never be the sole source of information used when making a decision about a potential treatment.

In addition to considering whether the information is accurate, fair and balanced, **it is also important to consider whether the information is relevant to your situation and needs.** Once you have found information on the Web that you believe to have credibility and are interested in, write down the name and web address of the site, print out the information and bring it to your health care provider.²⁸ Your doctor can help to answer any remaining questions

you may have, help you determine whether the information is legitimate and if it would be an appropriate therapy for you. It is also important to check with your doctor to make sure that it is safe for you to begin a new treatment, especially if you are currently undergoing another type of therapy.

In summary, when evaluating Web sites, use your best skeptical judgment to avoid quacks and misinformation. Selecting sources that strive to meet the HON principals will help you to obtain reliable information on the Internet:²⁵ These are additional resources about health information on the internet

Health on the Net
<http://www.hon.ch>

National Network of Libraries of Medicine – Evaluating Health Web Sites
<http://www.nlm.nih.gov/scr/conhlth/evalsite.htm>

Health Internet Ethics
<http://www.hiethics.org>

B. Organizations and Websites

Alternative Medicine - Health Care Information Resources
<http://www-hsl.mcmaster.ca/tomflem/altmed.html>

American Cancer Society (ACS)
1599 Clifton Road, N.E.
Atlanta, GA 30329
Telephone: 1-800-ACS-2345 (open 24-hours/day)
Web site: <http://www.cancer.org/>

Acupuncture.com
<http://www.acupuncture.com>

Alternative and Complementary Medicine Center-HealthWorld Online
<http://www.healthy.net/clinic/therapy>

Alternative Medicine Homepage
<http://www.pitt.edu/~cbw/altm.html>

American Botanical Council
<http://www.herbalgram.org>

American Institute for Cancer Research (AICR)
<http://www.aicr.org>

Ask NOAH about: CAM
<http://www.noah.curry.edu/alternative/alternative.html>

Cancer News on the Net
<http://www.cancernews.com/>

Cancer Online

(626)-797-8914

www.canceronline.org

Cancer Treatment Centers of America

<http://www.cancercenter.com>

Center for Mind-Body Medicine

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

Commonweal Cancer Help Program

<http://www.commonweal.org/canproj.html>

Dr. Andrew Weil's Homepage

<http://www.pathfinder.com/drweil>

Dr. Bower's Complementary Medicine Home Page

<http://www.people.virginia.edu/~pjb3s/ComplementaryHomePage.html>

Federal Trade Commission (FTC)

Consumer Response Center, Federal Trade Commission

Sixth Street and Pennsylvania Avenue, NW, Room H-130

Washington, DC 20580

Telephone: 202-326-3128

Web site: <http://www.ftc.gov/>

Food and Drug Administration (FDA)

5600 Fishers Lane

Rockville, MD 20857

Telephone: 1-888-463-6332 (toll free)

Web site: <http://www.fda.gov/>

Health Journeys Website

<http://www.healthjourneys.com>

National Cancer Institute (NCI) Cancer Information Service

Building 31, Room 10A16

9000 Rockville Pike

Bethesda, MD 20892

Telephone: 1-800-4-CANCER

Web site: <http://cancernet.nci.nih.gov/>

National Center for Complementary and Alternative Medicine (NCCAM)

NCCAM Clearinghouse

Post Office Box 8218

Silver Spring, MD 20907-8218

Telephone: 1-888-644-6226 (toll free)

Web site: <http://altmed.od.nih.gov/nccam/>

The National Coalition for Cancer Survivorship
<http://www.cansearch.org>

National Library of Medicine
<http://www.nlm.nih.gov>

NIH Office of Dietary Supplements Database
<http://odp.od.nih.gov/ods/>

Oncolink
<http://oncolink.upenn.edu>

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

R.A. Bloch Cancer Foundation
4435 Main Street, Suite 500
Kansas City, MO 64111
Telephone: 816-932-8453
Web site: <http://www.blochcancer.org>

Rosenthal Center for Alternative / Complementary Medicine - Columbia University
<http://cpmcnet.columbia.edu/dept/rosenthal/>

Steve Dunn's Cancer Guide
<http://cancerguide.org/alternative.html>

University of Texas Center for Alternative Medicine Research in Cancer
Note: this site is no longer being updated
<http://www.sph.uth.tmc.edu/utcam/>

Wellness Web
<http://www.wellWeb.com>

C. Search Engines

Search engines on the Internet are a way to assemble a list of relevant Web sites after typing in a few key words. The derived list is usually ranked in order of relevancy and usefulness. There are several search engines that have significant health-related sites. Some to try include:

Achoo
www.achoo.com

Alta Vista
www.altavista.digital.com

EINet-Galaxy
<http://galaxy.einet.net/galaxy/Medicine.html>

Excite

www.excite.com

Health AtoZ

www.healthatoz.com

Healthfinder

www.healthfinder.gov

Infoseek

<http://infoseek.go.com>

Lycos

<http://point.lycos.com>

Magellan

<http://magellan.excite.com>

WebCrawler

www.webcrawler.com

Yahoo

www.yahoo.com/health/index.html

D. Books

Reference / Overview

Alternative Medicine Handbook

Barrie R. Cassileth

1998, W.W. Norton and Company, New York, NY

Choices in Healing: Integrating the Best of Conventional and Complementary Approaches to Cancer

Michael Lerner

1994, MIT Press, Cambridge, MA

Comprehensive Cancer Care: Integrating Alternative, Complementary, and Conventional Therapies

James S. Gordon and Sharon Curtin

2000

Healing Essence: A Cancer Doctor's Practical Program for Hope and Recovery

Mitchell L. Gaynor

1995, Kodansha International

The Journey Through Cancer: An Oncologist's Seven-Level Program for Healing and Transforming the Whole Person

Jeremy R. Geffen

2000, Crown Publishers

Diet, Nutrition, and Lifestyle Change

Eight Weeks to Optimum Health

Andrew Weil

1997, Random House, New York, NY

Living Yoga: A Comprehensive Guide for Daily Life
Georg Feuerstein
1993, Jeremy P. Tarcher, Inc., Los Angeles, CA

Wellness Community Guide to Fighting for Recovery from Cancer
Harold Benjamin
1995, Penguin Putnam Inc., New York, NY

Herbal Medicine

Complete German Commission E Monographs: Therapeutic Guide to Herbal Medicine
Mark Blumenthal, Editor / American Botanical Council
1998, Integrative Medicine Communications, Boston, MA

Herbal Medicine: Expanded Commission E Monograph
Mark Blumenthal and Alicia Goldberg, Editors / American Botanical Council
2000, Integrative Medicine Communications, Boston, MA

Herbs for Health and Healing
Kathy Keville, Peter Korn, and Kathi Keville
1998, Rodale Press

PDR for Herbal Medicines
2000, Medical Economics Company, Montvale, NJ

Mind / Body Interaction

Ageless Body, Timeless Mind: The Quantum Alternative to Growing Old
Deepak Chopra
1993, Harmony Books, Crown Publishers, Inc.

Cancer as a Turning Point
Lawrence LeShan
1994 (revised), Plume

Double Vision: An East-West Collaboration for Coping with Cancer
Alexandra Dundas Todd
1995, Wesleyan University Press

Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain and
Illness
Jon Kabat-Zinn
1990, Delta, New York, NY

- Healing and the Mind, companion to the Bill Moyers PBS Series
Bill Moyers
1993, Bantam Doubleday Dell, New York, NY
- Healing Journey: the Simonton Center Program for Achieving Physical, Mental and Spiritual Health
O. Carl Simonton
1992, Bantam Books, New York, NY
- Health Journeys for People Undergoing Chemotherapy
Belleruth Naparstek
1993, Time Warner AudioBooks, Los Angeles, CA
- How to Meditate: Four Classic Meditation Techniques
Lawrence LeShan
1987, Audio Renaissance Tapes, Los Angeles, CA
- Living Beyond Limits: New Help and Hope for Facing Life-Threatening Illness
David Spiegel
1993, Times Books, New York, NY
- Love and Survival: the Scientific Basis for the Healing Power of Intimacy
Dean Ornish
1997, Harper Collins Publishers, New York, NY
- Love, Medicine, and Miracles: Lessons Learned about Self-Healing
Bernie Siegel
1986, Harper and Row Publishers, New York, NY
- Minding the Body, Mending the Mind
Joan Borysenko
1987, Bantam Books, New York, NY
- Peace, Love and Healing: BodyMind Communication and the Path to Self Healing
Bernie Siegel
1989, Harper and Row, New York, NY
- Power of the Mind to Heal
Joan Borysenko
1994, Hay House, Carson, CA
- Staying Well with Guided Imagery
Belleruth Naperstek
1994, Warner Books, New York, NY

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- ¹⁹ Rees, Alan M. "Consumer Health on the Internet" in *Consumer Health Information Source Book*. Oryx Press, Phoenix, AZ; 1998. pp. 74.
- ²⁰ FDA Consumer (1998). "Health Information On-Line." [Online]. Available WWW: http://www.fda.gov/fdac/features/596_info.html.
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IV. Integrating Conventional and Complementary Approaches for your Health Care

This section is for those who would like to integrate conventional and complementary / alternative approaches to their cancer care. While more hospitals, clinics and medical practices are offering complementary / alternative therapies as part of their services, few formal integrative medicine services are currently available. Patients who desire an integrated approach will need to be actively involved in the process. This information will support your efforts. This section will cover four important steps in pursuing integrated health care:

- Creating your vision of health / wellness and considering various approaches to achieving your vision
- Evaluating and making decisions about specific therapies
- Selecting health care providers
- Building partnerships with health care providers

A. Creating your vision of health / wellness

When people have been asked why they use complementary / alternative therapies, a common reason they give is that the approaches are consistent with their view of health and wellness. If this is not something you've thought about, it may be worth some time to consider what health means to you, the areas in your life where you feel most healthy, and the areas where you would most benefit from improvement. This process will help you decide what types of approaches you may want to consider.

A distinction commonly made is that conventional medicine focuses on the disease while complementary / alternative medicine focuses on all aspects of the person – physical, mental, social, and spiritual. This distinction probably depicts conventional medicine at its worst and CAM at its best. Certainly many conventional medicine practices incorporate a variety of complementary supportive care interventions. And, inserting a singular CAM modality such as herbs or acupuncture into a disease-focused conventional approach offers little likelihood of focusing on the whole person.

There are several resources you may find helpful in thinking about what health and wellness means to you, how our bodies, minds, and spirits work together, and conventional and complementary approaches to address all aspects of your health.

Healing Essence: A Cancer Doctor's Practical Program for Hope and Recovery
Mitchell L Gaynor, M.D. 1995

Comprehensive Cancer Care: Integrating Alternative, Complementary, and Conventional Therapies
James S. Gordon, M.D. and Sharon Curtin, 2000

Choices in Healing: Integrating the Best of Conventional and Complementary Approaches to Cancer

Michael Lerner, Ph.D., 1994

The Journey Through Cancer: An Oncologist's Seven-Level Program for Healing and Transforming the Whole Person

Jeremy R. Geffen, M.D., 2000

B. Evaluating and Making Decisions About Specific Therapies

1) Gathering and evaluating information

The amount and quality of information available on various complementary and alternative therapies varies widely. As with any aspect of health care, it is wise to use multiple sources of information and to carefully consider the source of the information. The Information Sheets included in Section V. include additional sources of information. This is a rapidly developing area so new sources of information are constantly becoming available, especially on the internet.

The Information Sheets include several questions worth asking:

- *What does this therapy involve?* You will want to find out if the therapy is something that you can deal with, if it's available in your area or something that you'll have to travel a distance for, how much time it will involve and how much it might interfere with other demands in your life.
- *How is it thought to work?* This may be an educated guess, based on observations or other things we know; or it may be a mechanism of action that's been proven through research studies.
- *What has been proven about the benefits?* It's important to remember that 'proof' is in the eye of the beholder. Some people may consider their clinical observations and patient reports as adequate. Many of the complementary and alternative therapies have some research data to support their usage, but typically not to the degree that conventional therapies have been investigated. See below for more on this subject.
- *What are the potential risks or harm?* Similar to the issues surrounding proven benefits, limited data may be available on potential risks or harm. Therapies which are non-invasive, as well as those which have been in use for a long time, are less likely to have unknown side effects. It's important to consider not only the risks associated with the therapy by itself, but also any risks associated with combining it with other therapies. For example, as the use of herbal therapies increase, more herb-herb and herb-drug interactions are being seen.
- *How much does this therapy cost?* Many complementary / alternative therapies are not covered by insurance. Cost, compared with potential benefit, is often an important consideration.

2) Barriers to research in complementary and alternative medicine

One of the frequent criticisms of complementary and alternative medicine is that it is not research based, that is, treatment recommendations are not based on the results of randomized clinical trials. While there is validity to the need for more research, there are several issues worth considering. First, to what standard is CAM being compared? What is the reality of research-based practice in conventional medicine? Secondly, are there areas where the randomized clinical trial may not be the most appropriate way of considering the effectiveness of a therapy? And, thirdly, what are the barriers to CAM research and how will those be overcome?

Limitations of research in conventional medical decision-making

It's often assumed that, in conventional medicine, all treatment recommendations are based on research results. While this is a goal, in reality, conventional medicine is as much art as science, and as fraught with controversy as is complementary and alternative medicine. The U.S. Office of Technology Assessment issued a report in 1978 entitled 'Assessing the Efficacy and Safety of Medical Technology'.¹ This report indicates that only 10 - 20% of medical procedures have been shown to be of benefit. Many common treatments had never been evaluated by clinical trials. In addition, up to 75% of studies published at that time had 'invalid or unsupportable conclusions as a result of statistical problems'. Few well-designed trials were found and the preponderance had positive results, indicating that studies with negative results are less likely to be published.

Dr. David Grimes cites numerous barriers in medicine that perpetuate the use of technology which has not been shown to benefit, including 'seduction by authority', the 'false idol of technology', and the tendency to 'let sleeping dogma lie'.² While the medical community has ready access to the same body of research data, controversies exist in every area of cancer care. Rather than dismissing CAM due to inadequate research, we need to have reasonable expectations, not hold CAM to a higher standard than conventional medicine, and work towards enhancing our understanding of the benefits and risks of all therapies through clinical trials and other ways of understanding.

Limitations of the randomized controlled clinical trial

A variety of types of research are considered when evaluating a new treatment, but the gold standard is the randomized, controlled clinical trial (RCCT). Recent publications in renowned, international medical journals have discussed the limitations and pitfalls of trying to make clinical decision based on randomized clinical trials.^{3,4,5} The RCCT attempts to include a group of patients who are similar on all important factors, randomize them (divide them by chance) into two or more different treatment groups, treat each group consistently using a standardized treatment plan, and measure important variables of response. This process makes several assumptions that may be inconsistent with some CAM

approaches. First, it assumes that we know what factors make patients similar. We typically use demographic factors, such as age or gender, and disease factors, such as pathologic diagnosis and stage of disease. For any medical research in adults, it is difficult to find a group that is truly similar as, typically, close to 40% of adults have comorbidities, that is other illnesses that could affect their response to and side effects from the treatment being studied.⁶ For some complementary and alternative therapies, the factors that make people similar may be entirely different. For example, it might be more appropriate to group people as to their coping styles or levels of oxidative stress (a measure of reactive substances that can increase risk of cancer and heart disease).

A second assumption is that the best way to treat a group of people is to treat each one exactly the same way. Much of complementary and alternative medicine approaches tailor the treatment to the individual, based both on pretreatment factors and response to treatment. Dr. Davidoff, Editor of the *Annals of Internal Medicine*, asked doctors who practiced Traditional Chinese Medicine about the evidence that supported their work. He was told that 'every treatment regimen in traditional medicine is unique, since regimens are tailored to individual patients and individual patients are unique. It is therefore inherently impossible, they explained, to assemble aggregate ("general") evidence about the efficacy of many traditional practices."⁷

Another component of this assumption is that we actually have the ability to treat a group of people exactly the same way, controlling all the factors that could impact the outcomes. Evidence suggests that one in three cancer patients uses some form of complementary and alternative medicine and the majority do not tell their doctors.⁸ Disease response rates, side effects, and quality of life outcomes all have the potential to be influenced by these non-disclosed therapies.

A third assumption is that decreasing the size of the tumor is an accurate predictor of response. Novel treatments currently going through the clinical trials process are suggesting that tumor shrinkage or disappearance may not always be the most important endpoint. Perhaps stopping the tumor's growth, while maintaining or improving the patient's quality of life, are appropriate outcome variables to be measured in some cases.

Barriers to CAM research

CAM practitioners are often criticized for the limited amount of research in their arena. However, significant barriers exist to conducting this research. Barriers exist in the areas of study design, funding, approval, and publishing.

There are numerous potential barriers in the area of study design. CAM practitioners may not be educated in the area of research process, just as many doctors, nurses, and other professionals focusing on clinical care are not research experts. The CAM practitioners may not have access to the expert resources in

study design, outcome measurement, and statistical analysis available to the conventional medical community. CAM studies may be much more complicated than studies of conventional therapies. Careful consideration needs to be given to selection and measurement of outcomes, as well as choice of appropriate placebo or comparison treatments.

A significant portion of costs associated with developing and evaluating new treatments in conventional medicine is borne by the pharmaceutical or medical equipment industry. They consider this a cost of doing business, with the potential to recoup all these costs, as well as a significant profit, when they patent a new treatment and have the exclusive rights to sell that treatment for many years. Therapies such as herbs and vitamins are typically not patentable. This is not to say that companies are not making significant profits selling these products. However, our government has structured the oversight process for herbs and vitamins in such a way that companies have little to gain by conducting expensive research, and, from their stockholders' viewpoint, much to lose in this competitive market if they were to reduce profits to support research. As use of these products increases, we are beginning to see some increase in resources for investigating both quality and efficacy of these products. The budget of the National Center for Complementary and Alternative Medicine has increased significantly and modifications have been made to the grant review process, helping to ensure that the reviewers who determine what research will be funded are familiar with CAM therapies.

An ongoing challenge is getting CAM studies approved. Depending on the study, approvals may be necessary at a variety of levels. These include the institutional departments in which the researchers work, the clinical settings in which the research would be conducted, the institutional review boards for human subjects protection, national cooperative research groups, and a variety of funding agencies. Historically, anything that doesn't fit our current paradigm or world-view meets resistance, and CAM is no exception to this rule.

Finally, research results cannot influence practice if they are not seen. Publishing CAM study results in widely read medical journals has faced the same resistance as study approval. Over the past couple years, this has begun to change with prestigious journals such as the Journal of the American Medical Association and the AMA Archives devoting entire issues to the publication of CAM research. In addition, journals specifically devoted to publishing CAM research have arisen.

With all the controversies and uncertainties surrounding cancer treatment, it's important to consider how you can effectively deal with uncertainty.

3. Making decisions in the face of uncertainty

Many people who have been diagnosed with cancer feel like the disease has taken away their sense of control over their life. They struggle with many areas of uncertainty, ranging from the ultimate issues of life and death to the day-to-day issues of learning a new vocabulary and going through tests and treatments where they don't know what to expect. People use a variety of ways to cope with this uncertainty. One coping mechanism is actively pursuing information to understand your situation and make decisions. That can be a very helpful coping mechanism but can also lead to frustration when there is not enough information available, or the information is conflicting.

There are a few things you may want to consider if you find yourself making decisions in the face of uncertainty. First, what is the balance between benefits and risk / costs, both known and potential? For therapies where the potential risks and costs are low, you may feel comfortable giving it a try even if the benefits are not clearly proven. For example, the medical journal CHEST recently published a laboratory study demonstrating the anti-inflammatory effects of chicken soup.⁹ Many people have felt very comfortable using chicken soup as a cold remedy for decades, without the benefit of laboratory studies, or randomized controlled clinical trials! Conversely, if a treatment is very expensive and / or has potential for significant side effects, you may want more evidence of benefit.

Secondly, is it possible to evaluate how this treatment works for you, without closing doors to future possibilities? If you have a goal to incorporate stress management therapies, you may want to explore multiple different strategies to see what works best for you. Checking out yoga or guided imagery doesn't prevent you from using biofeedback in the future, or close doors to any cancer treatment therapies. Conversely, pursuing some type of alternative cancer therapy that is given internally could result in side effects or disease progression, preventing or delaying usage of other cancer treatments.

Finally, you may want to consider how you would feel about a particular decision in the face of a poor outcome. For example, if you radically change your diet and, two years later, your cancer recurs, how would you view this?

Would you think, 'I made that decision considering the information that was available. That diet made me feel better and gave me a sense of taking care of myself. Who knows, maybe if I hadn't changed my diet, the cancer would have come back sooner. If I had to do it over, I wouldn't have done anything differently.'

Or, would you think, 'I have lived the past two years depriving myself of every food I really like. If I'd known the cancer was going to come back anyway, I'd have eaten potato chips and ice cream every day.'

As with everything in life, the relationship between our decisions and the outcomes is loose. We can make ‘bad’ decisions and still have good outcomes. We can make ‘good’ decisions and still have bad outcomes. One way to define a ‘good’ decision is one that you can be satisfied with, regardless of the outcome. For most people, this means:

- having access to the available information
- having the opportunity to make a decision that reflects not only the information but also their values and priorities
- having support to pursue that decision, including family / friends, health care professionals, and financial sources

These issues apply to both conventional and CAM therapies, and certainly play a big part in an effort to integrate the two. This is why it is so important to have a team of health care professionals that enable your access to and understanding of information, respect your values and priorities, and support your right to make your health care decisions.

C. Selecting Competent Practitioners

Finding a quality health care practitioner can be a confusing and lengthy process. Health consumers may want to gather information about the background, qualifications and competence of potential health care providers, whether a “mainstream” physician or CAM practitioner. An informed referral is a good place to start. One of the best referral sources is a professional in a related field. For instance, chiropractors often know the best acupuncturists in the local area, and vice versa.

Appropriate state licensing is one way to check that the practitioner you select is competent in his/her field. You can contact a state or local regulatory agency with authority over practitioners who practice the treatment you seek. The practice of CAM is typically not as well regulated as the practice of conventional medicine. However, licensing, accreditation and regulatory laws are increasingly being developed and implemented. For some specialties, licensing requirements are determined at the state level. In others, the individual county or city governments determine the level of education and training necessary for a license. Local and state medical boards, health regulatory boards and consumer affairs departments can provide information about a specific practitioner's license, education, accreditation and whether there are any complaints lodged against the practitioner.

Most types of complementary and alternative practices also have national organizations that are familiar with legislation, state licensing, certification or registration laws. In general, membership to these professional organizations is available only to those practitioners who meet the minimum licensing law requirements for their state. These professional organizations often have referral services and can recommend a qualified practitioner in your area.

In the absence of licensing laws, there are no precise ways to determine the relative competence of a CAM practitioner. Nonetheless, common sense can provide you with some general direction. For instance, a practitioner who has extensive training in their trade and pursues continuing education is often a wiser choice. We advise you to avoid using a practitioner's professional initials to dictate your decision. Through participation in various training/certification programs, an individual can obtain certain initials. It is in your best interest to select an acupuncturist with thousands of hours of training and a long list of postgraduate seminars over a physician who has merely taken a weekend training course.¹⁰ Experience is another useful guideline. Just as medical doctors improve with practice, so too will CAM practitioners. Be sure to find out the number of hours of training the practitioner has had in the technique in which you are interested. In addition, you should ask him/her about board or organizational certifications of completion and competency.

In summary, health care providers vary widely in their education, training and experience. This is especially true in the case of complementary and alternative medical practices. Confusing the issue are the inconsistent licensing laws for CAM practitioners as well as education and training requirements. Appendix C provides information about certification, licensing, and professional organizations for a wide variety of CAM practitioners. Appendix B lists many of the letters you may see after the names of either of conventional or CAM practitioners, with the professional degrees and titles these letters indicate. This may be helpful as you explore the qualifications of various practitioners.

D. Building Partnerships With Your Health Care Providers

1. The importance of a good partnership

Your relationships with your health care providers, whether they are conventional or complementary/alternative practitioners, can influence not only your satisfaction but, potentially, even your outcomes. There is some evidence that suggests the placebo effect leads to the release of endorphins, or natural painkillers, in the brain, which can help alleviate pain and anxiety.¹¹ It is also believed that the doctor-patient relationship has a strong influence on whether or not the placebo effect will occur. Because many patients have a strong faith in and respect for their health care providers, a therapy offered by a trusted source gives them hope and strength for recovery from illness. Physicians who help their patients gain optimism are more likely to generate positive placebo effects in their patients than those who do not inspire and generate hope in their patients.¹²

2. Rights and responsibilities

Fundamental to good medical care is the respect of your rights as a patient. The precepts of the Patients' Bill of Rights hold true for any provider-patient relationship. As a consumer in the health care system, you have a right to:¹³

- Be treated fairly and openly in all matters.
- Considerate, respectful and confidential care.
- Obtain all information regarding your visit.

- Receive information necessary to give informed consent prior to the start of any office procedure and/or treatment.
- Refuse treatment and be informed of the medical consequences of your action.
- Receive a copy of your medical records, consistent with the state statutes on this matter.

While these may seem very basic and obvious, they can become important issues as you work to integrate conventional and complementary / alternative strategies. Will your conventional care providers discuss your interests in CAM in an open and respectful manner? Will your CAM providers provide open information about the potential benefits and risks of the therapies they offer? Will both sets of providers make your records readily available to the other and, if appropriate, be open to jointly discussing your care plan? Some of these questions you can ask directly and receive direct answers. Others may require you to stick your neck out and see how your health care provider responds. It is critical that you feel comfortable, at a minimum, informing your health care providers of all other therapies you are using so that they can inform you of and observe for potential interactions, either positive or negative.

With every set of rights, come responsibilities. With the many changes in health care, health care professionals are under significant pressures. There are a number of things you can do to optimize your time with your health care professional and promote a positive relationship. For additional information, please refer to the *Wellness Community Oncologist-Patient Statement*, found in Appendix D. This statement, developed by the Wellness Community, addresses doctor and patient responsibilities in promoting a good relationship.

3. Suggestions to Help Build a Partnership with your Health Care Provider

Creating good relationships and getting good care may also involve you taking a more active role in your health care. In Handbook of Behavioral Medicine, Irving Janis of Yale University states that patients are no longer "seen as passive recipients of health care who are expected to do willingly whatever the doctor says. Rather, they are increasingly regarded as active decision makers, making crucial choices that can markedly affect the kind of treatment they receive and the outcome."¹⁴ Taking an active role in your own health consists of many elements. For example, preparation for and attention during an appointment can help you get the most benefit from your time with your providers. Please refer to Appendix E for a complete list of guidelines and tips to help you prepare for your appointment, actively engage your physician during your appointment and take control of your health once you leave his/her office.^{15,16}

Taking control of your health also includes identifying and expressing your physical, emotional and/or spiritual needs. Your doctor should be willing to discuss new ideas or treatment approaches that you feel would support your overall sense of well-being. Remember that integrative medicine is

individualized medicine. Hence, a doctor who is able to support you in a holistic sense is a powerful component in helping you to achieve overall wellness.

It is important to be aware that some conventional doctors will be more open than others to combining complementary with conventional medicine. Likewise, some CAM practitioners may be more resistant than others to conventional treatments. In either case, it is important for you to question those providers who quickly dismiss conventional or CAM therapies. Each person has his/her own beliefs and biases that stem from one's education and life experiences. Ideally, health care providers recognize their own biases and are open to differing points of view if there are reasons to believe a different strategy may be helpful. Frank and open discussions with your doctor are always vital, but if the conversation is not productive, seeking a second opinion is always an appropriate option. Ultimately, you should feel that your rights as a patient are upheld and that you are provided with the insight and advice necessary for you to make informed choices.

If you are interested in finding a physician who practices alternative medicine, contact the American Holistic Health Association (AHHA), an association representing physicians who practice complementary and alternative medicine. The AHHA will provide you with names of practicing doctors in your area and their specialties. However, these referrals are not offered with a guarantee. The Healing Web Page also has a comprehensive referral network online at www.holisticmed.com. To find physicians trained in homeopathy, contact the National Center for Homeopathy and ask for their referral list. See below for contact information.

American Holistic Health Association

P.O. Box 17400

Anaheim, CA 92817-7400

Telephone: (714) 779-6152

Web site: www.healthworld.com/association/chg/ahha/index.html

National Center for Homeopathy

801 North Fairfax Street, Suite 306

Alexandria, VA 22314

Telephone: (703) 548-7790

Web site: www.homeopathic.org

¹ Assessing the Efficacy and Safety of Medical Technologies. Washington, DC: Office of Technology Assessment, Congress of the United States; 1978:7. Publication NTIS-PB-2876929

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V. CAM Information Sheets

This information is not meant to serve as medical advice. Before making any change in your health care, please consult a physician familiar with your situation.

Information sheets (in alphabetical order)

714-X	Hydrogen Peroxide
Accupressure	Hydrotherapy
Acupuncture	Hypnosis
Alexander Technique	Immune Augmentation Therapy (IAT)
Aloe Vera	Laetrile
Antioxidant Vitamins	Light Therapy
Antineoplastons	Livingston-Wheeler Therapy
Aromatherapy	Macrobiotics
Art Therapy	Massage Therapy
Ayurveda	Meditation
Biofeedback	Melatonin
CanCell/Entelev	Mistletoe
Cartilage	Modified Citrus Pectin
Cat's Claw	MTH-68
Chaparral	Music Therapy
Chelation Therapy	Native American Healing
Chiropractic	Naturopathic Medicine
Coenzyme Q10	Ozone Therapy
Coley Toxins	Pau d' Arco
Coriolus Versicolor	PC-SPES
Craniosacral Therapy	Prayer and Spirituality
Crystal Healing	QiGong
Electromagnetic Therapy	Reflexology
Essiac	Reiki Therapy
Faith Healing	Revici Method
Fasting and Juice Therapies	Rolfing
Flower Remedies	Saw Palmetto
Garlic	Selenium
Gerson Therapy	St. John's Wort
Govallo Therapy	Tai Chi
Green Tea	Therapeutic Touch
Guided Imagery	Traditional Chinese Medicine
Homeopathy	Vegetarianism
Hoxsey	Yoga
Hydrazine Sulfate	

714-X

What does 714-X treatment involve? 714-X is a liquid medicine developed by Gaston Naessens of Quebec and is used as a cancer cell attractor. It contains camphor, nitrogen, ammonium salts, sodium chloride and ethanol. Treatment consists of injection with 714-X into a lymph node in the groin for twenty-one consecutive days followed by two days of rest. Patients receive three twenty-one-day cycles total. Some patients are advised to prolong treatment based on cancer type and stage.¹ A healthy diet following holistic nutrition guidelines is encouraged as part of the treatment.

How is 714-X thought to treat cancer? According to Naessens, cancer cells need and use a large amount of nitrogen obtained from healthy cells in the body. In order to obtain nitrogen, cancer cells release a substance Naessens calls co-cancerogenic K factor (CKF). CKF is a toxic compound that inhibits the efficacy of the human immune system. Naessens claims that when 714-X is injected into a patient, cancer cells are attracted to it due to its nitrogen-rich characteristic. Because the cancer cells are no longer excreting CKF, the immune system can be mobilized. Without CKF, cancer cells have no protection from the body's immune system and are killed.² 714-X also contains organic salts that help unclog the lymph system so that it can carry away toxins accumulated during the illness.³

What has been proven about the benefit of 714-X? The University of Texas Center for Alternative Medicine conducted an extensive human studies literature review of 714-X and found four studies applicable to cancer. All were case reports from Naessens himself. No other scientific evidence is available to support the use of 714-X in treating any type of cancer.

What is the potential risk or harm of 714-X? 714-X has no reported side effects but proponents warn that vitamins E and B₁₂ should not be taken when using 714-X.⁴ The FDA has not approved 714-X for sale or for treatment purposes in the U.S. The drug is legal in Canada.

How much does 714-X treatment cost? Cost of the treatment is \$300 plus shipping.⁵

For additional information:

CERBE Distribution Incorporated
5270 Mills Street
Rock Forest, Quebec J1N 3B6 Canada
Telephone: (819) 564-7883

Web site: www.cerbe.com

University of Texas Center for Alternative Medicine Research in Cancer

University of Texas, Health Science Center

P.O. Box 20186, #434

Houston, TX 77225

Web site: www.sph.uth.tmc.edu/utcam/

¹ American Cancer Society (1998). "714-X." [Online]. Available WWW: http://www.cancer.org/alt_therapy/714X.html.

² American Cancer Society (1998). "714-X." [Online]. Available WWW: http://www.cancer.org/alt_therapy/714X.html.

³ University of Texas Center for Alternative Medicine Research in Cancer (1999). "714-X." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/714x.htm>.

⁴ Ontario Breast Cancer Information Exchange Project. "Guide to unconventional cancer therapies." 1st ed. Toronto: *Ontario Breast Cancer Information Exchange Project*, 1994:250-252.

⁵ University of Texas Center for Alternative Medicine Research in Cancer (1999). "714-X Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/714x.htm>.

Acupressure

What does acupressure involve? Acupressure, similar to Japanese shiatsu, is a non-needle variation of acupuncture involving deep finger pressure on acupoints. Rooted in the principles of Chinese medicine, acupressure is performed to release muscular tension, promote the circulation of blood and restore the flow of *qi* (or *chi*, pronounced “chee”), the body's vital energy, along channels in the body. Acupressure has the advantage of being a "self-help" remedy because, through the use of guidebooks, it can be self-administered.¹

How is acupressure thought to promote wellness and optimize overall health?

Acupressure stems from the ideas on which traditional Chinese medicine is based. It is rooted in the beliefs and assumptions of ancient healing concepts related to energy flow and blockage. Proponents of acupressure believe that by pressing on certain points in the body, energy blocks can be removed and balance and harmony restored. Acupressure is believed to be effective in reducing tension and other stress-related ailments such as headaches and muscle aches, increasing circulation, and enabling the body to relax deeply.² By relieving stress, the body's immune system and, therefore, resistance to disease may be heightened. When tension is released, patients may feel better physically, emotionally and mentally promoting overall wellness and health.

What has been proven about the benefit of acupressure? While some people do appear to benefit from acupressure, the mechanism by which this occurs is unknown. Its occasional effectiveness may be due to relaxation and comfort from hands-on massage or the release of natural painkillers in the body called endorphins.³

What is known about the potential risk or harm of acupressure? While there are no inherent side effects, acupressure should be avoided in areas near varicose veins, wounds and sores. Because forceful pressure is sometimes used, patients with brittle bones, a history of spinal or other orthopedic injury or easy bruising should be careful when using acupressure. Patients undergoing long-term steroid therapy may have fragile tissues and should also use caution. If treatments are painful or soreness persists beyond a couple of days the therapist should be informed.⁴

How much does acupressure cost? Cost will vary depending on whether acupressure is self-administered or a therapist is used. If used as a self-treatment, no additional equipment is necessary.

For additional information:

Acupressure Institute
1533 Shattuck Avenue
Berkeley, CA 94709

Telephone: (510) 845-1059

Web site: www.acupressure.com

American Oriental Bodywork Therapy Association
Laurel Oak Corporate Center, Suite 408

1010 Haddonfield-Berlin Road

Voorhees, NJ 08043

Telephone: (609) 782-1616

Web site: www.healthy.net/pan/pa/bodywork/about1.htm

¹ Yahoo! Incorporated (1999). "Yahoo Health: Acupuncture." [Online]. Available WWW:
http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Acupuncture.

² Gach, Michael R (1990). "What is Acupressure?" [Online]. Available WWW:
<http://www.acupressure.com/PotentPointsBook/Chapter1.html>.

³ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg 211.

⁴ Yahoo! Incorporated (1999). "Yahoo Health: Acupressure." [Online]. Available WWW:
http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Acupressure.

Acupuncture

What does acupuncture involve? Acupuncture is the insertion of hair-thin, stainless steel needles into the skin at specific locations, called channels or acupoints, to affect the flow of Qi (energy) in the body. According to traditional Chinese medicine, each channel is believed to connect with a specific organ system of the body. The needles are placed into the skin just deep enough to prevent them from falling out and are kept in place for less than one-half hour. Twirling the needles or applying a small amount of electrical power is thought to enhance the result.¹ (For more information, please see traditional Chinese medicine).

How is acupuncture thought to manage specific symptoms of cancer, side effects of conventional therapies and/or control pain? Acupuncture is used primarily to relieve pain and symptoms such as nausea and vomiting. There are two different explanations as to how acupuncture works. The conventional medicine explanation is that insertion of needles stimulates the body's nervous system to release chemicals that change the feeling of pain and influence the body's internal regulating system although scientific research has yet to support this idea.^{2,3} The Chinese medicine explanation is that the insertion of needles restores of the regular flow of the life force termed *qi* (pronounced "chee"), stimulating the body's natural healing abilities.

What has been proven about the benefit of acupuncture? Acupuncture may be useful in treating symptoms of disease and side effects of cancer treatment and for inducing relaxation. Two studies have reported the relief of radiotherapy-induced edema and reduced pain,^{4,5} and another study has reported an improvement in chemotherapy-induced nausea and vomiting in 96% of patients studied.⁶ However relief from nausea and vomiting only lasted a short while. There is no scientific proof that acupuncture can cure or treat cancer, but it does appear to be effective for controlling pain.

What is the potential risk or harm of acupuncture? There are no inherent side effects associated with acupuncture. However, careless practitioners can be hazardous, especially if improperly sterilized needles are used. Cautionary advice specific for cancer patients considering acupuncture include: do not let an acupuncturist place needles in a cancerous mass or lump because this may promote spread of the tumor; do not have acupuncture performed if neutropenic (low white blood cell count) because of the risk of infection; and do not have acupuncture performed if thrombocytopenic (low platelet count) because of the increased risk of bleeding.^{7,8} It is recommended that patients should discuss acupuncture with their physician(s) before receiving treatments.

How much does acupuncture cost? Costs will vary depending on the practitioner and whether insurance will cover acupuncture. The number of treatments needed will also differ from person to person.

For additional information:

American Association of Oriental Medicine
433 Front Street
Catasauqua, PA 18032
Telephone: (610) 266-1433
Web site: www.aaom.org

National Acupuncture and Oriental Medicine Alliance
14637 Starr Road S.E.
Olalla, WA 98359
Telephone: (253) 851-6896
Web site: www.acuall.org

Acupuncture: How it Works, How it Cures. Peter Firebrace and Sandra Hill. New Canaan, CT: Keats Publishing Inc., 1994

¹ American Cancer Society (1997). "Acupuncture." [Online]. Available WWW: http://www.cancer.org/alt_therapy/acupuncture.html.

² The Center for Holistic Medicine. "What is Acupuncture?" [Online]. Available WWW: <http://uhmc.com/chmacupn.htm>.

³ OncoLink. University of Pennsylvania Cancer Center (2000). "Acupuncture." [Online]. Available WWW: <http://oncolink.upenn.edu/support/tips/tip16.html>

⁴ Bardychev MS, Guseva LI, Zubova ND. "Acupuncture in edema of the extremities following radiation of combination therapy of cancer of the breast and uterus." *Vopr Onkol* 1988; 34(3):3; pg 19-22.

⁵ Kuzmina EG, Degtiareva AA, Zubova ND, Guseva LI, Klimanov ME. "Effectiveness of various therapeutic schemes for patients with radiation edema of the extremities." *Med Radiol* 1987; 32(3); pg. 18-22.

⁶ Dundee JW, Ghaly RG, Fitzpatrick KT, Abram WP, Lynch GA. "Acupuncture prophylaxis of cancer chemotherapy-induced sickness." *JR Soc Med* 1989; 82(5); pg. 268-271.

⁷ Yahoo! Incorporated (1999). "Yahoo Health: Acupuncture." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Acupuncture.

⁸ OncoLink. University of Pennsylvania Cancer Center (2000). "Acupuncture." [Online]. Available WWW: <http://oncolink.upenn.edu/support/tips/tip16.html>

Alexander Technique

What does the Alexander Technique involve? Matthias Alexander, an Australian actor, developed the Alexander Technique in the late 1800s. The technique focuses on muscle control and body mechanics. The goal of the Alexander Technique is to correct improper body mechanics that lead to poor posture, body strain and tension. The method is generally taught one-on-one, but group classes may be held as well. During each session, students perform everyday actions, such as walking, standing or sitting while the instructor encourages the students to shed ingrained and inappropriate muscular reactions so that healthy, natural reflexes can be restored.^{1,2}

How is the Alexander Technique thought to promote wellness and optimize overall health? The improvement of posture and body movement can relieve muscle strain, aches and pains resulting from bad body mechanics and has the potential to increase relaxation.³ The Alexander Technique is not a curative therapy but may be helpful in improving awareness of the body, physical coordination, and sense of well-being. By relieving stress, the body's immune system and, therefore, resistance to disease may be heightened.

What has been proven about the benefit of the Alexander Technique? There is little scientific evidence proving the value of this therapy aside from the many positive testimonials of people who have used the technique.

What is the potential risk or harm of the Alexander Technique? Although the technique is gentle and not likely to cause harm, individuals with chronic muscular pain or joint problems are encouraged to consult their health care providers before starting this program.

How much does this therapy cost? Costs will vary based on the number of sessions of instruction necessary and whether instruction occurs in an individual or group setting.

For additional information:

Alexander Technique International
1692 Massachusetts Ave, 3rd floor
Cambridge, MA 02138
Telephone: (888) 321-0856
Web site: www.ati-net.com

North America Society of Teachers of the Alexander Technique (NASTAT)

3010 Hennepin Avenue South

Minneapolis, MN 55408

Telephone: (800) 473-0620

Web site: <http://www.life.uiuc.edu/jeff/nastat.html>

The Alexander Technique: How to Use Your Body Without Stress. Wilfred Barlow, M.D. Healing Arts Press, 1991.

¹ American Cancer Society (1997). "Alexander Technique;" [Online]. Available WWW: http://www.cancer.org/alt_therapy/alexander.html.

² Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pgs. 213 - 216

³ American Cancer Society (1997). "Alexander Technique;" [Online]. Available WWW: http://www.cancer.org/alt_therapy/alexander.html.

Aloe Vera

What does aloe vera therapy involve? Many of the 200 known species of aloe have been used as herbal medicines. The best-known species, aloe vera, has traditionally been used in a topical gel form to treat dry or damaged skin, burns and cuts. Since the 1930s, aloe has been used for the treatment of skin reactions resulting from radiation therapy.¹ It can also be taken orally in juice form.

How is aloe vera thought to treat cancer? Some proponents claim that aloe strengthens the immune system by acting directly on abnormal cells, thus preventing or treating cancer. Acemannan, an active compound found in aloe, has been reported to be a potent immune stimulant. It is thought to work by increasing macrophage activity, an immune system cell, as well as releasing immune system enhancers.²

What has been proven about the benefit of aloe vera? Clinical animal research has shown encouraging results in some skin tumors. In 1991, the U.S. Department of Agriculture approved aloe vera as an adjunctive treatment for fibrosarcomas in dogs and cats.³ However, in the one human study reviewed by the University of Texas Center for Alternative Medicine, no positive responses were reported for radiation-induced dermatitis. At this time, there is no clinical evidence of efficacy of aloe vera as a cancer treatment. Currently, the American Cancer Society does not endorse the use of aloe vera as a cancer treatment.⁴

What is known about the potential risk or harm of aloe vera? Side effects of aloe use include abdominal pain, nausea, vomiting, diarrhea and electrolyte balance. Several deaths attributed to aloe vera injections for cancer treatment have been reported.⁵

How much does aloe vera cost? One gallon of aloe costs around \$20. One gallon yields approximately 32 servings.

For additional information:

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/

¹ American Cancer Society (1999). "Aloe." [Online]. Available WWW: http://www.cancer.org/alt_therapy/aloe.html.

² Murray, Michael T. The Healing Power of Herbs. Rocklin, CA: Prima Publishing, 1995; pg. 35.

³ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Aloe." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/aloe.htm>.

⁴ American Cancer Society (1999). "Aloe." [Online]. Available WWW: http://www.cancer.org/alt_therapy/aloe.html.

⁵ American Cancer Society (1999). "Aloe." [Online]. Available WWW: http://www.cancer.org/alt_therapy/aloe.html.

Antioxidants: Vitamins and Other Supplements

What does antioxidant therapy involve?

Vitamins are substances essential for normal development and ongoing good health. Most vitamins cannot be made by the body and must be obtained through diet or supplements. Several vitamins and other substances have antioxidant properties. These include vitamins C, E, A (including beta carotene), lycopene, and selenium. Numerous other substances also have antioxidant properties, including coenzyme Q10, melatonin, N-acetylcysteine, glutathione, green tea, and pycnogenol.

Antioxidants are important for several reasons. Harmful free radicals are produced in the body during normal metabolism and in response to UV light, chemicals, radiation, and infectious agents. These free radicals play a role in the most common health problems, including cancer and heart disease, as well as degenerative problems associated with aging. Antioxidants act in numerous ways to block or repair the damage done by free radicals.

Antioxidant therapy typically involves taking over-the-counter vitamin supplements or other supplements orally. This may be in the form of a multi-vitamin or through single or multiple individual vitamin supplements. Green tea is covered separately in its own fact sheet.

How are antioxidants thought to promote wellness and optimize overall health?

Antioxidant vitamins work through a wide variety of mechanisms to protect body tissues from free radical damage or repair DNA damage. A protective relationship has been seen between high fruit and vegetable consumption and risks for cancer and heart disease; with fruits and vegetables being a major source of antioxidant nutrients.

Some researchers believe that antioxidant vitamins given during cancer treatment reduce the toxicity of the cancer treatment on normal cells. Others suggest that these nutrients will enhance the immune system and reduce the risk of infection associated with the immune compromise seen with many cancer treatments.

How are antioxidants thought to treat cancer?

Laboratory studies suggest that individual antioxidants may induce cancer cell differentiation (cause cells to mature) or inhibit growth of cancer cells. Numerous mechanisms have been proposed for why this might occur. Other laboratory research suggest that antioxidants, individually or in combination, may enhance the effects of radiation therapy, chemotherapy, hyperthermia, and biological response modifiers. However, some research suggests that activities other than

antioxidant properties may be contributing to these vitamins' effects on chemotherapy response and toxicity.

What has been proven about the benefits of antioxidants?

Numerous studies have suggested that supplemental levels of antioxidant vitamins (E, C, beta carotene) reduce an individual's risk for certain cancers and cardiovascular disease. Other studies suggest higher levels of vitamin C may reduce the risks of cataracts and glaucoma and reduce the symptoms of asthma and rheumatoid arthritis. Many people are familiar with Linus Pauling's research suggesting that high doses of vitamin C may help prevent or shorten the duration of the common cold.

Some investigators feel strongly that antioxidant vitamins can be helpful in combination with other treatments in treating cancer and reducing side effects of conventional therapies. A review by Lamson and Brignall cites numerous studies demonstrating decreased toxicity and / or increased therapeutic effect when antioxidants were combined with chemotherapy, radiotherapy, or tamoxifen. However, most of the research that has been done looking at the effects of antioxidant vitamins on existing cancer has been done in the laboratory. Interactions in the human body are much more complicated than the experiments created in the laboratory. Even studies in animals may produce different results than what happens in humans.

What is known about the potential risk or harm of antioxidants?

Potential areas of concern for cancer patients considering antioxidant vitamin therapy are 1) vitamin toxicity, 2) increased risk of cancer recurrence, and 3) reduced effectiveness of chemotherapy or radiation therapy treatments. The risks of vitamin toxicity at standard doses of vitamins C, E, and beta carotene are quite low. The possibility of side effects increases if mega-doses are used. Primary side effect risks are:

Vitamin C: diarrhea, gastrointestinal upset

Vitamin E: risk of bleeding due to coagulation changes; particularly if using other agents (including prescription and non-prescription drugs, as well as herbs) which decrease blood clotting

Vitamin A: side effects caused by overdose of preformed vitamin A, not carotenoids. Symptoms include nausea, headache, fatigue, loss of appetite, dizziness, and joint pain and are associated with long-term consumption in excess of 10 times the RDA.

Studies which have looked at beta carotene supplements in persons at high risk for lung cancer found it did not have a protective effect. In fact, the individuals who received beta carotene were more likely to develop lung cancer and more likely to die than those who received placebo. This raises the theoretical concern that the risk of cancer recurrence or development of a new cancer, at least in lung cancer patients, may be increased by beta carotene. These research results dramatically point out that 1) the health benefits of whole foods may be different

than individual supplementation, 2) we cannot always predict what will happen in humans based on laboratory studies, and 3) anything, including vitamins and other 'natural substances', that has the power to help, also has the power to harm.

Many oncologists recommend against the use of antioxidant vitamins during treatment with chemotherapy or radiotherapy. This is based on the knowledge that some cancer treatments use free radicals to damage the cancer cells. It is possible that taking antioxidants during treatment could eliminate those free radicals and reduce the efficacy of the conventional cancer treatment. This is certainly the safest recommendation in terms of eliminating any possibility of reducing the efficacy of conventional therapy. However, it also eliminates the possibility of the potential benefits of antioxidant supplements. It may be worthwhile considering two additional factors in these recommendations. First, can the recommendations be tailored based on the individual patient's treatment plan? The different classes of chemotherapy drugs have different vulnerabilities to interactions with antioxidants. Second, what role does the patient prefer to play in this decision? Some people will prefer to use the physician's risk: benefit analysis while others may prefer to incorporate their own values and comfort with risk into the decision.

How much do antioxidant vitamins cost?

Antioxidant vitamins are widely available at pharmacies, grocery stores and health food stores. As part of a multivitamin supplement, the cost may be as little as \$5 per month. Costs of other antioxidant supplements vary widely.

For additional information:

Conklin KA. "Dietary antioxidants during cancer chemotherapy: impact on chemotherapeutic effectiveness and development of side effects." 2000; *Nutrition and Cancer*;37(1):1-18
Gottlieb N. "Cancer treatment and vitamin C: the debate lingers." 1999; *Journal of the National Cancer Institute*: 91(24):2073-2075
Labriola D and Livingston RN. "Possible interactions between dietary antioxidants and chemotherapy." *Oncology* 1999;13(7):1003-1008
Lamson DW and Brignall MS. "Antioxidants in Cancer Therapy." 1999; *Alternative Medicine Review* 4(5); 304-329
Lamson DW and Brignall MS. "Antioxidants and Cancer Therapy II: A Quick Reference Guide." *Alternative Medicine Review* 2000;5(2); 152-163
Prasad KN, Kumar A, Kochupillai V, Cole WC. "High doses of multiple antioxidant vitamins: essential ingredients in improving the efficacy of standard cancer therapy." *Journal of the American College of Nutrition* 1999;18(1);13-25

The Canadian Breast Cancer Research Initiative. "Vitamin A,C,E Supplements. [Online] Available www.breast.cancer.ca/English/alt/vit
The Linus Pauling Institute Micronutrient Information Center. [Online] <http://osu.orst.edu/dept/lpi/infocenter/index.html>
The National Institutes of Health Office of Dietary Supplements. [Online] <http://odp.od.nih.gov/ods>
American Institute for Cancer Research [Online] <http://www.aicr.org/>

Antineoplastons

What does antineoplaston therapy involve? Antineoplastons, proteins that occur naturally in the body, were first identified by Dr. Stanislaw Burzynski. Because Dr. Burzynski found these proteins in the blood and urine of healthy people, but not in cancer patients, he reasoned that antineoplastons help control the growth of cancer. Antineoplastons are administered intravenously through a catheter inserted in a central venous line. A pump infuses the medications at scheduled intervals.¹ The duration of treatment depends on the patient's response.

How is antineoplaston therapy thought to treat cancer? According to Dr. Burzynski, antineoplastons are a part of the human body's natural biochemical defense system.² He hypothesized that these peptides inhibit cancer cell growth by causing cancer cells to grow normally instead of uncontrollably. Antineoplastons appear to function as "biochemical microswitches;" turning off oncogenes that are thought to cause cancer while turning on tumor suppressor genes that stop it.³

What has been proven about the benefit of antineoplaston therapy? After a review of Dr. Burzynski's best cases in 1991, the National Cancer Institute (NCI) determined that there was presumptive evidence of antitumor activity. Protocols were developed and begun in 1993 with input from the NCI and Dr. Burzynski. However, in 1995, the studies were closed prior to completion because a consensus could not be achieved with Dr. Burzynski on proposed changes in the protocol.⁴ No conclusions could be made at that time about the effectiveness or toxicity of antineoplastons. Since that time, Dr. Burzynski has received a treatment IND for permission to study antineoplastons from the FDA. Currently, the Burzynski Clinic is conducting 72 FDA-approved clinical trials of antineoplastons for various cancer types. As patients are treated and responses are reported, the value of this treatment will finally be known. However, until there is documented evidence from carefully controlled studies of the efficacy of antineoplastons, the American Cancer Society urges cancer patients to treat their disease with proven methods of treatment.⁵

What is the potential risk or harm of antineoplaston therapy? Antineoplastons are well tolerated by most patients but they do have side effects. These side effects include nausea, vomiting, stomach gas, slight rashes, chills, fever, joint and muscle pain, changes in blood pressure and an unpleasant body odor.

How much does antineoplaston therapy cost? Before consultation with Dr. Burzynski, an initial deposit of \$6000 is required from all patients.⁶ Treatment costs run between \$7,000 and \$9,500 a month. The duration is usually between four and twelve months depending on the patient's response. Treatment with antineoplastons occurs at the Burzynski Clinic in Houston, TX on an outpatient basis. Travel and housing costs are not included in the treatment fee. A few insurance companies will pay for treatment with antineoplastons but the majority does not.

For additional information:

American Cancer Society
1599 Clifton Road, N.E.
Atlanta, GA 30329
Telephone: (800) ACS-2345
Web site: <http://www.cancer.org>

Burzynski Research Institute
Suite 200
9432 Old Katy Road
Houston, TX 77055
Telephone: (281) 597-0111
Web site: www.cancermed.com
www.burzynskipatientgroup.org

¹ Burzynski Patient Group. "Frequently Asked Questions." [Online]. Available WWW: <http://www.burzynskipatientgroup.org/mission.htm>.

² American Cancer Society (1999). "Antineoplastons." [Online]. Available WWW: http://www.cancer.org/alt_therapy/antineoplastons.html.

³ Burzynski Clinic. "Clinical Trials of Antineoplastons for Patients with Cancer." [Online]. Available WWW: <http://www.cancermed.com/brochure.htm>.

⁴ National Cancer Institute (1999). "National Cancer Institute-Sponsored Clinical Trials of Antineoplastons." [Online]. Available WWW: http://cancernet.nci.nih.gov/National_Cancer_Institute-Sponsored_Clinical_Trials_of_Antineoplastons.htm

⁵ American Cancer Society (1999). "Antineoplastons." [Online]. Available WWW: http://www.cancer.org/alt_therapy/antineoplastons.html.

⁶ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Antineoplastons." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/anti.htm>.

Aromatherapy

What does aromatherapy involve? Natural, highly concentrated, pure oils that result from distilling flowering plants are used in aromatherapy. Oils from plants are grouped together by the physical and emotional effects they are thought to produce. Aromatherapists use as many as 40 different highly concentrated oils to treat physical and mental ailments that patients may experience. Therapeutic techniques with essential oils include skin massage, inhalation of humidifier steam and soaking in a fragrant bathtub.^{1,2}

How is aromatherapy thought to promote wellness and optimize overall health? Like other complementary methods, aromatherapy seeks to relieve stress, energize the body and increase a sense of well-being. Proponents believe that aromatherapy treatments use the power of scent to raise the body's immunity to illness by calming and soothing the body, mind and spirit.³

What has been proven about the benefit of aromatherapy? While there is no scientific proof, there are many reported benefits of essential oils, which include stimulation of the immune system, improved resistance to infection and relief from stress and depression. For example, rose fragrance is believed to improve appetite, aid digestion and tone the stomach, liver and spleen. It is known that small traces of a scent can activate nerve cells in the nasal cavity that trigger the olfactory and limbic areas of the brain. The limbic system is the memory and emotion center of the brain. Most doctors believe the relief provided by aromatherapy stems from an emotional response to the scents rather than any physiological effects.⁴

What is the potential risk or harm of aromatherapy? Essential oils should only be used externally. Toxicity may result if the oils are swallowed. Prolonged exposure to essential oils may cause allergic reactions. Excessive inhalation of fragrant vapors can cause headache, fatigue and bronchial spasms. If you have asthma, consult your physician before using aromatherapy.

How much does aromatherapy cost? Costs for an appointment with a certified aromatherapist will vary. Patients can use essential oils as a self-help remedy at home, which will reduce the cost significantly.

For additional information:

American Alliance of Aromatherapy
P.O. Box 309
Depoe Bay, OR 97341
Telephone: (800) 809-9850
Web site: <http://205.180.229.2/aaoa>

American Aromatherapy Association
P.O. Box 3679
South Pasadena, CA 91031
Telephone: (818) 457-1742

National Association of Holistic Aromatherapy
P.O. Box 17622
Boulder, CO 80308-0622
Telephone: (303) 258-3791

Aromatherapy to Heal and Tend the Body. Robert Tisserand. Santa Fe, NM: Lotus Light press, 1988.

¹ American Cancer Society (1997). "Aromatherapy." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/aroma.html.

² Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg 258-259.

³ Froemming, P. The Best Guide to Alternative Medicine. Los Angeles, CA: Renaissance Media, Inc., 1998; pg 183.

⁴ Yahoo! Incorporated (1999). "Yahoo Health: Aromatherapy." [Online]. Available WWW:
http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Aromatherapy.

Art Therapy

What does art therapy involve? Art therapy is based on the belief that the act of creating or viewing displays of art enables individuals to express and communicate inner emotions, which is thought to be therapeutic and part of the healing process. Patients are given tools to paint, draw or sculpt and are encouraged to engage in a creative, expressive, independent art project. More passive forms of art therapy involve viewing the timeless nature of great works of art to elicit powerful feelings from patients.¹

How is art therapy thought to improve wellness and optimize overall health? The uninhibited expression of feelings and emotions through art may help to release fear and anger many cancer patients experience. Proponents of this therapy believe that art therapy attempts to take the patient into his/her own world where the process of healing begins.² Art can also be viewed as a distraction to the pain and discomfort of disease, allowing patients relief from stress and increased well-being. By relieving stress, the body's immune system and, therefore, resistance to disease may be heightened.

What has been proven about the benefit of art therapy? There is little research available about the benefit of art therapy, but because of increasing patient interest, art therapy is frequently offered as a rehabilitation option through many medical centers. Some neurophysiologists report that art, prayer and healing are all associated with similar brain wave patterns and stem from the same body source. Art therapy's proponents believe that the creative energy stimulated by the project contributes to the healing process.

What is the potential risk or harm of art therapy? There is little or no harm associated with this activity.

How much does art therapy cost? Costs will vary depending on where this therapy takes place. Art therapists work in hospitals, outpatient facilities, clinics, private offices and art facilities. It is also easy to practice art therapy at home. Patients must purchase supplies, which can be found at any art supply store.

For additional information:

The American Association for Art Therapy
1202 Allanson Road
Mundelein, IL 60060-3808
Telephone: (888) 290-0878
Web site: www.arttherapy.org

Arts and Healing Network
PMB 612
3450 Sacramento Street
San Francisco, CA 94118
Fax: (415) 771-3696
Web site: www.artsheal.org

¹ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 264-265.

² American Cancer Society (1997). "Art Therapy." [Online]. Available WWW: http://www.cancer.org/alt_therapy/art.html.

Ayurveda

What is Ayurveda and what does it involve? Ayurveda is an ancient traditional medicine, lifestyle and philosophy of India. Ayurvedic medicine, similar to traditional Chinese medicine, is based on a life force and the pursuit of balance between the body, mind and nature.¹ Illness is believed to be the absence of physical, emotional and spiritual harmony.² Its emphasis is on preventing disease and maintaining good health. Ayurvedic practitioners use diagnostic techniques, such as examination of the pulse, tongue, face, lips, nails and eyes, to monitor the disease process. Treatment programs usually include an individualized diet, body detoxification through the use of fasting and enemas, meditation, yoga, counseling and spiritual therapy.

How is Ayurveda thought to promote wellness and optimize overall health?

Ayurvedic practitioners' goal is to bring about well-being, prevent disease and ensure harmony of body and mind by aligning patients' lifestyles with their personal characteristics and medical histories.³ Certain aspects of this healing system, such as meditation, massage and yoga, have been shown to enhance quality of life, reduce stress and tension and improve general well-being.⁴ Ayurvedic medicine's emphasis on self-care and prevention is consistent with many health maintenance programs designed to promote wellness and optimize health. Many of Ayurvedic medicine's principles can be used in conjunction with conventional medicine.

What has been proven about the benefit of Ayurveda? Ayurveda is not recognized in the United States as a licensed treatment or therapy. While some practitioners claim they can treat cancer, there is no scientific evidence to support such claims. Meditation, massage, and yoga, elements of Ayurveda, are documented to have positive effects such as reduced anxiety and enhanced general well-being. Other elements of Ayurvedic medicine, such as blood-letting, bowel purging and induced vomiting, have not been shown to have any benefit and can lead to serious medical complications. Studies of the potential benefits of Ayurvedic herbal compounds continue.⁵

What is the potential risk or harm of Ayurveda? Overuse of Ayurvedic elements such as enemas and laxatives can lead to serious chemical imbalances within the body. Fasting and purging can speed up degenerative processes in cancer patients. There is very little known about Ayurvedic herbal medicines. Check with a pharmacist or medical doctor before taking any medications.

How much does Ayurvedic medicine cost? Costs will vary with the practitioner.

For additional information:

The Ayurvedic Institute
11311 Menaul NE
Albuquerque, New Mexico 87112
Telephone: (505) 291-9698
Web site: www.ayurveda.com

Ageless Body, Timeless Mind. Deepak Chopra, M.D. New York, NY: Harmony Books, 1993.

Ayurveda: The Science of Self-Healing. Vasant Lad. Wilmont, WI: Lotus Press, 1984.

Perfect Health: The Complete Mind/Body Guide. Deepak Chopra, M.D. New York, NY: Harmony Books, 1991

¹ American Cancer Society (1997). "Ayurveda." [Online]. Available WWW:

http://www.cancer.org/alt_therapy/ayurveda.html.

² Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 22.

³ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 23.

⁴ American Cancer Society (1997). "Ayurveda." [Online]. Available WWW:

http://www.cancer.org/alt_therapy/ayurveda.html.

⁵ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 27.

Biofeedback

What does biofeedback involve? Biofeedback involves training the mind to gain control over physiological reactions that are ordinarily involuntary and automatic through "feedback" information. Electronic equipment that measures body functions such as breath rate, perspiration, blood pressure, heart rate, skin temperature and muscle tension allows patients to observe any changes that result from their behavior or thought processes. As patients attempt to control these functions, the electronic equipment allows them to monitor their efforts. In time, patients can learn to modify the targeted physiological activity. Patients can learn to reduce or eliminate symptoms by developing voluntary control techniques to change those body functions.¹

How is biofeedback thought to promote wellness and optimize overall health? By learning to control various biological functions, biofeedback can help reduce stress and tension, lessen pain and promote relaxation. With proper training, one can reduce or eliminate symptoms and replace feelings of helplessness with a sense of control over his/her health.^{2,3} Biofeedback can teach individuals, whether affected by cancer or not, techniques for living a healthier life overall.⁴

What has been proven about the benefit of biofeedback? While biofeedback is not a curative therapy, research shows that it can help relieve a wide range of symptoms cancer patients experience.⁵ The greatest benefit biofeedback offers those with cancer is relaxation and reduction of stress. This can undoubtedly improve the quality of life for those who are successful with the technique.⁶ Biofeedback has also proven useful in retraining, reconditioning and strengthening muscles after surgery, restoring loss of control due to pain or nerve damage and overcoming urinary or bowel incontinence.⁷

What is the potential risk or harm of biofeedback? There is no known medical risk in using biofeedback, a noninvasive therapy. The small amount of electricity used to produce readings on the electronic equipment may affect a pacemaker, although no problems have been reported to date.

How much does biofeedback cost? Fees from a visit with a biofeedback therapist can range from \$35 to \$85 per session depending on the therapist's experience and the patient's ability to pay. Many major medical policies will reimburse the biofeedback fee. The course of therapy is usually ten sessions.⁸ Trained biofeedback technicians will help patients interpret the signals picked up by the electronic equipment. After a few sessions, they often recommend physical and mental exercises to help patients gain the control they desire.

For additional information:

Association for Applied Psychophysiology and Biofeedback
10200 W. 44th Avenue, Suite 304
Wheat Ridge, CO 80033-2840
Telephone: (800) 477-8892
Web site: www.aapb.org

¹ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 117.

² Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 119.

³ OncoLink, University of Pennsylvania Cancer Center (2000). "Utilizing Biofeedback." [Online]. Available WWW: <http://www.oncolink.upenn.edu/support/tips/tip17.html>

⁴ Association for Applied Psychophysiology and Biofeedback. "What is Biofeedback." [Online]. Available WWW: <http://www.aapb.org/public/AAPBbiofeedback.html>.

⁵ American Cancer Society (1997). "Biofeedback." [Online]. Available WWW: http://www.cancer.org/alt_therapy/biofeedback.html.

⁶ OncoLink, University of Pennsylvania Cancer Center (2000). "Utilizing Biofeedback." [Online]. Available WWW: <http://www.oncolink.upenn.edu/support/tips/tip17.html>

⁷ Yahoo! Incorporated (1999). "Yahoo Health: Biofeedback." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Biofeedback.

⁸ Worldworks, Unlimited (1996). "Biofeedback: The Process." [Online]. Available WWW: <http://lifematters.com/bfarticle.html>.

Cancell/Entelev

What does Cancell treatment involve? Cancell, also known as Entelev, Cantron, Jim's Juice, Crocinic Acid and Sheridan's Formula, is a dark brown liquid consisting of chemicals (sulfuric acid, nitric acid, potassium hydroxide, sodium sulfite) envisioned by James Sheridan, a chemist. Sheridan said the idea came to him in a dream inspired by God.¹ Cancell can be administered both internally and externally. In order to obtain Cancell, it is necessary for patients to have "a letter from their physician and a signed statement with proof that the cancer condition is terminal."²

How is Cancell thought to treat cancer? Proponents of Cancell have proposed two different hypotheses to explain how Cancell functions. One is that in the "cancer relationship," cellular proteins become less differentiated. Cancell causes cancer cells to return to their "primitive state" and self-destruct. The second hypothesis is that a mutated anaerobic cell that causes electrical and chemical damage causes cancer. Cancell changes the vibrational frequency and energy of cancer cells until they reach the "primitive state," and subsequently self-destruct. The cellular waste material then passes out of the body any way it can, and the cancer cells are replaced with normal healthy cells.

What has been proven about the benefit of Cancell treatment? There is no evidence that Cancell works against cancer. The National Cancer Institute conducted laboratory and animal tests on Cancell in 1978, 1980 and 1991, and no anti-cancer activity has been found. Although patient testimonials have been offered, no clinical trials have been done to show effectiveness of Cancell.

What is the potential risk or harm of Cancell treatment? According to the FDA, Cancell is not produced in conformity with good manufacturing practices and is considered to be adulterated, misbranded and inadequately labeled.³ The composition and potency may vary from batch to batch, and the bottles fail to carry warnings or directions. Patients may experience temporary, moderate fatigue and flu-like symptoms after ingestion.⁴

How much does the therapy cost? Cancell was provided free of charge to patients with serious forms of cancer because its formula was received through "divine inspiration." The FDA now holds a permanent injunction against the makers of Cancell to ensure that Cancell is no longer manufactured, distributed or advocated by its developers.

For additional information:

BC Cancer Agency
600 West 10th Avenue
Vancouver, BC Canada V5Z 4E6
Telephone: (604) 877-6000
Web site: www.bccancer.bc.ca

Cancell Home Page:

<http://www.best.com/~handpen/Cancell/cancell.htm>

National Cancer Institute Cancer Information Service

Telephone: (800) 4-CANCER

¹ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 161.

² Ontario Breast Cancer Information Exchange Project. "Guide to unconventional cancer therapies." 1st ed. Toronto: *Ontario Breast Cancer Information Exchange Project*, 1994:264-265.

³ American Cancer Society (1998). "Cancell/Entelev." [Online]. Available WWW: http://www.cancer.org/alt_therapy/cancell.html.

⁴ CA (Anonymous). "Questionable methods of cancer management: Cancell/Entelev." *CA: a Cancer Journal for Clinicians*, 1993 Jan-Feb; 43(1):57-62.

Cartilage

What does cartilage therapy involve? Cartilage is a type of connective tissue found between bones and joints of animals and humans.¹ Cartilage for therapeutic use is derived from cattle, sheep, sharks and chickens, dried and crushed into a fine powder. Cartilage is given either orally in pill or powder form or as an enema. The American Cancer Society reports that cartilage taken orally does not have any effect on cancer because the active protein molecules in these products are too large to be broken down and absorbed by the human gut.² Because the recommended daily dose is very high (60 to 90 grams) and has a bad taste, many people prefer to take cartilage by enema.

How is cartilage thought to treat cancer? Angiogenesis is the process in which new blood vessels form and grow to support tissue. Because cancerous tumors require a network of blood vessels to survive and grow, angiogenesis is one of the first steps in the process of metastasis. Proponents believe that cartilage contains anti-angiogenesis factors that cut off the supply of blood and nutrients to cancerous tumors and ultimately kills them by stopping their growth.

What has been proven about the benefit of cartilage? During the 1970s and 1980s, researchers identified anti-angiogenesis factors within cartilage. Investigators at the National Cancer Institute suggest that a class of proteins found in cartilage and bone block the actions of specific enzymes that help tumor cells invade healthy tissue.³ However, it is still not known which proteins are responsible for this effect. The University of Texas Center for Alternative Medicine performed an extensive human studies literature review of cartilage and found nine studies applicable to cancer.⁴ The studies had variable results, some reporting no response at all and others reporting tumor disappearance. The American Cancer Society reports that in November 1998, a large clinical trial of shark cartilage as a cancer treatment was published in the *Journal of Clinical Oncology*. The study found no benefit for this remedy against cancer.⁵

What is the potential risk or harm of cartilage therapy? The FDA deemed cartilage as non-toxic. However, when taken orally, it may cause nausea and indigestion. Because cartilage may inhibit new blood vessel growth, patients who are still growing and/or need blood vessel development, such as children, patients recovering from surgery and patients with cardiovascular problems, are advised against this treatment. Patients with a low white blood cell count (neutropenia) should not take cartilage enemas because of the threat of infection.⁶

How much does cartilage cost? Cost of cartilage will vary depending on the manufacturer. One hundred capsules may cost approximately \$100. This therapy is not reimbursed by insurance.⁷

For additional information:

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/

¹ American Cancer Society (1999) "Shark Cartilage." [Online]. Available WWW: http://www.cancer.org/alt_therapy/sharkcartilage.html.

² American Cancer Society (1999) "Shark Cartilage." [Online]. Available WWW: http://www.cancer.org/alt_therapy/sharkcartilage.html.

³ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Cartilage Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/cartilage.htm>.

⁴ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Cartilage." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/crtlg.htm>.

⁵ American Cancer Society (1999) "Shark Cartilage." [Online]. Available WWW: http://www.cancer.org/alt_therapy/sharkcartilage.html.

⁶ American Cancer Society (1999) "Shark Cartilage." [Online]. Available WWW: http://www.cancer.org/alt_therapy/sharkcartilage.html.

⁷ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Cartilage." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/crtlg.htm>.

Cat's Claw (Una de Gato)

What does cat's claw treatment involve? Cat's claw (*Uncaria tomentosa*) is a plant most often imported from the rainforests of Peru. Its inner bark is used for a variety of medicinal purposes including cancer and tumors.¹ Cat's claw can be taken as a liquid, capsule or tea.

How is cat's claw thought to treat cancer? Cat's claw contains a group of alkaloids that are thought to possess anti-cancer and antitumor activity and stimulate the immune system.²

What has been proven about the benefit of cat's claw? Cat's claw's role in improving the immune system in cancer patients has been recently reported. Many of the alkaloids in cat's claw have demonstrated immunostimulant properties in the laboratory.³ The University of Texas Center for Alternative Medicine performed a human studies literature review of cat's claw and found three studies relevant to cancer. The evidence for the efficacy of cat's claw was inconclusive.

What is the potential risk or harm of cat's claw? Though little published data exists, no serious side effects have been reported, and cat's claw is considered low in toxicity.⁴

How much does cat's claw cost? The cost of cat's claw varies with the product formulation. Prices begin at \$6.00 for capsules and \$6.00 per ounce for liquids.⁵

For additional information:

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/

¹ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Cat's Claw." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/cat.htm>.

² Blumenthal M. "Una de Gato (Cat's Claw): Rainforest herb gets scientific and industry attention." *Whole Foods (Herb Clip)*. 1995:62-65.

³ Anonymous. "Cat's Claw." *The Lawrence Review of Natural Products*. 1996:1-3.

⁴ Anonymous. "Cat's Claw." *The Lawrence Review of Natural Products*. 1996:1-3.

⁵ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Cat's Claw Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/cat.htm>.

Chaparral

What does chaparral therapy involve? Chaparral is an herb made from the leaves of a desert shrub, the creosote bush (*Larrea divericata Coville*). Chaparral is a traditional Native American remedy for wounds, infections, rheumatism, tuberculosis and cancer, among others. For cancer treatment, chaparral leaves and stems are steeped in hot water to make a tea. The therapy involves drinking one to three cups per day or taking the herb in tablet form.

How is chaparral thought to treat cancer? Chaparral contains a compound called nordihydroguaiaretic acid (NDGA) that acts as a powerful antioxidant. Theoretically, NDGA is thought to stop tumors by preventing cancer cells from breaking down glucose to produce energy needed for cellular growth.¹

What has been proven about the benefit of chaparral? Early studies of NDGA showed it was able to inhibit the growth of some cancer cells in rats.² Human studies were not successful and concerns about NDGA's toxicity increased after lesions on the kidneys and lymph nodes of animals were found. As a result, the FDA removed from its "generally recognized as safe" (GRAS) list in 1968.³

What is the potential risk or harm of chaparral? Chaparral is toxic to liver. Between 1992 and 1994, the FDA received eighteen reports of chaparral-associated illness, thirteen of which involved liver toxicity.⁴ In two cases, it has caused liver failure requiring liver transplantation. The American Cancer Society does not believe that chaparral is a useful cancer treatment.⁵

How much does chaparral cost? Cost varies from \$40 to \$90 a bottle. It can be found at various health food stores.

For additional information:

BC Cancer Agency
600 West 10th Avenue
Vancouver, BC Canada V5Z 4E6
Telephone: (604) 877-6000
Web site: www.bccancer.bc.ca

¹ American Cancer Society (1999). "Chaparral." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/chaparral.html.

² Viable Herbal Solutions. "Chaparral." [Online]. Available WWW:
www.metromkt.net/viable/1chaparr.shtml.

³ Tyler, Varro E. The Honest Herbal. New York, NY: Haworth Press, Inc., 1993; pg. 87.

⁴ American Cancer Society (1999). "Chaparral." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/chaparral.html.

⁵ American Cancer Society (1999). "Chaparral." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/chaparral.html.

Chelation Therapy

What does chelation therapy involve? Chelates are chemicals that are used to bind toxic heavy metals in the bloodstream and are later excreted in the urine. Chelation therapy is an accepted and FDA-approved therapy for lead poisoning. Recently, some alternative practitioners have promoted chelation therapy as an anti-cancer treatment. The therapy consists of an intravenous infusion of the chelating agent disodium EDTA given over a three and one half-hour period. Usually twenty to thirty treatments are given at the rate of one to three sessions per week.¹

How is chelation therapy thought to treat cancer? Some implicate heavy metal toxicity as a contributing cause of cancer. Heavy metals propagate free-radical reactions and, as a result, may suppress the immune system. Chelation therapy is thought to improve circulation throughout the body, reduce misplaced soft-tissue calcification, reduce free-radical pathology and increase oxygen to cells by binding to toxic heavy metals. Proponents of chelation therapy believe that by reducing the body's free-radical load, chelation therapy enhances the immune system and the ability to fight cancer.²

What has been proven about the benefit of chelation therapy? No research to date supports chelation therapy as a treatment option for anything other than heavy metal poisoning. The American Cancer Society, FDA, American Heart Association, American Medical Association, Centers for Disease Control and Prevention, American Osteopathic Association and the American Academy of Family Physicians have all endorsed this view.³

What is the potential risk or harm of chelation therapy? Reported side effects have included bone marrow damage, kidney failure, irregular heart rhythm, severe inflammation of injection sites, anemia and death.⁴

How much does chelation therapy cost? The average total cost of chelation therapy is about \$3000 to \$4000.⁵

For additional information:

The American College for Advancement in Medicine
23121 Verdugo Drive, Suite 204
Laguna Hills, CA 92653
Telephone: (714) 583-7666
Web site: www.acam.org

¹ Cowden, W.L., Diamond, W.J. and Goldberg, B. Definitive Guide to Cancer. Tiburon, CA: Future Medicine Publishing, Inc., 1997; pg. 129.

² Cowden, W.L., Diamond, W.J. and Goldberg, B. Definitive Guide to Cancer. Tiburon, CA: Future Medicine Publishing, Inc., 1997; pg. 498.

³ American Cancer Society (1998). "Chelation Therapy." [Online]. Available WWW: http://www.cancer.org/alt_therapy/chelation.html.

⁴ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 177.

⁵ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 177.

Chiropractic

What does chiropractic treatment involve? Chiropractic is a system that believes all illness stems from underlying blockages of nerve bundles inside the spinal cord. A chiropractor seeks to treat illness by finding any misalignment or irregularity in the spine and physically manipulating the vertebrae (bones of the spinal cord) to bring back healthy, unblocked nerve function. Chiropractors do not treat illness directly. Instead, they seek to correct the spine-related cause of the illness.¹ Other techniques chiropractors perform include tissue manipulation, trigger-point manipulation and deep tissue massage.

How is chiropractic treatment thought to manage specific symptoms of cancer, side effects of conventional therapies and/or control pain? While not a curative therapy for cancer, chiropractic can help to relieve headaches, tension, lower back and muscle pain, and address other discomforts generally eased by manipulation or massage.^{2,3}

What has been proven about the benefit of chiropractic treatment? Chiropractic has long drawn criticism from the mainstream medical community for its failure to provide scientific proof of its effectiveness. There is a growing consensus, however, that chiropractic manipulation is effective in varying degrees as a treatment for lower back pain. As a result chiropractic is growing and gaining respectability among the medical community. To date, there is no scientific confirmation of effectiveness of chiropractic treatment for any ailment other than lower back pain.^{4,5} However, the NIH's National Center for Complementary and Alternative Medicine now supports the Consortium for Chiropractic Research, which will investigate chiropractic treatment for a variety of ailments.

What is the potential risk or harm of chiropractic treatment? Serious side effects from chiropractic are rare. However, chiropractic is not recommended for patients with bone cancer and diseases of the spinal cord and bone marrow.

How much does chiropractic treatment cost? On average, a course of treatment consists of four visits per week for two weeks.⁶ Chiropractors are licensed in all fifty states, and their services are covered by many insurance plans, including Medicare.

For additional information:

The American Chiropractic Association
1701 Clarendon Boulevard
Arlington, VA 22209
Telephone: (800) 986-4636
Web site: <http://www.amerchiro.org>

Consortial Center for Chiropractic Research
Palmer Center for Chiropractic Research
741 Brady Street
Davenport, IA 52803
Web site: www.palmer.edu

¹ American Cancer Society (1997). "Chiropractic." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/chiropractic.html.

² American Cancer Society (1997). "Chiropractic." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/chiropractic.html.

³ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 220.

⁴ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 220.

⁵ Yahoo! Incorporated (1999). "Yahoo Health: Chiropractic." [Online]. Available WWW:
http://health.yahoo.com/Alternative_Medicine/Alternative_Therapies/Chiropractic/.

⁶ Yahoo! Incorporated (1999). "Yahoo Health: Chiropractic." [Online]. Available WWW:
http://health.yahoo.com/Alternative_Medicine/Alternative_Therapies/Chiropractic/.

Coenzyme Q₁₀

What does therapy with coenzyme Q₁₀ involve? Coenzyme Q₁₀ is a naturally occurring enzyme found in the body. It is a catalyst that promotes chemical reactions in the body without being used up or altered by the reaction. Coenzyme Q₁₀ is available in tablets, capsules or oil-based gelcaps.

How is coenzyme Q₁₀ thought to treat cancer? The major functions of coenzyme Q₁₀ are as an antioxidant to protect cells from damage by oxygen and a stimulator of both cellular respiration and immune functioning. It is believed by proponents that cancer patients lack coenzyme Q₁₀ in their blood.¹ Coenzyme Q₁₀ is thought to inhibit oxidation, stimulate the immune system and induce tumor remission.

What has been proven about the benefit of coenzyme Q₁₀? Deficiencies in coenzyme Q₁₀ have been documented in cancer patients.² Coenzyme Q₁₀ deficiencies have also been associated with heart damage from Adriamycin chemotherapy treatment for cancer.³ Two different studies suggest that coenzyme Q₁₀ provides protection against Adriamycin and lovastatin cardiotoxicity.⁴ The University of Texas Center for Alternative Medicine (UTCAM) conducted an extensive human studies literature review of coenzyme Q₁₀ and found twenty-five studies applicable to cancer. After review of the available studies, UTCAM reports that coenzyme Q₁₀ may provide beneficial results as an adjunct cancer therapy through anti-oxidant and immune system enhancing properties.⁵

What is the potential risk or harm of coenzyme Q₁₀ therapy? Side effects have rarely been reported, but headache, heartburn, fatigue, diarrhea, skin reactions and increased voluntary movement may occur.⁶

How much does coenzyme Q₁₀ cost? Two hundred capsules of coenzyme Q₁₀ cost approximately \$100.⁷ They can be purchased at a variety of pharmacies and natural food stores.

For additional information:

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/

¹ BC Cancer Agency (1997). "Coenzyme Q." [Online]. Available WWW: <http://www.bccancer.bc.ca/uctm/07.html>.

² Folkers K, Osterborg A, Nylander M, Morita M, Mellstedt H. "Activities of vitamin Q10 in animal models and a serious deficiency in patients with cancer." *Biochemical and Biophysical Research Communications* 1997; 234:296-299.

³ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Coenzyme Q₁₀ Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/coQ10.htm>.

⁴ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Coenzyme Q₁₀." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/coq10.htm>.

⁵ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Coenzyme Q₁₀." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/coq10.htm>.

⁶ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Coenzyme Q₁₀ Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/coQ10.htm>.

⁷ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Coenzyme Q₁₀ Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/coQ10.htm>.

Complementary/Alternative Therapies to Treat Cancer

Coley Toxins

What does Coley toxin therapy involve? Coley toxins were developed by William B. Coley, MD, in 1890 and fall within the realm of immunotherapy. After reviewing one hundred cases of sarcoma treated in his hospital, Coley noted that patients who developed infections fared better than those who did not. Coley mixed toxins of the *streptococcus* and *bacillus prodigiosus* bacteria and administered them to patients. Regressions of cancer were noted, but the treatment fell out of disuse with the advent of chemotherapy. Coley toxins are administered intravenously and now include exotoxins, enzymes, proteins and endotoxin from both *S. pyogenes* and *S. marcescens*.¹ The combined toxins are only legal in the U.S. if prepared and administered in a physician's office.

How are Coley toxins thought to treat cancer? Coley toxins are designed to stimulate the immune system to better fight existing malignant cells and enhance survival.

What has been proven about the benefit of Coley toxins? The University of Texas Center for Alternative Medicine conducted an extensive human studies literature review and found seventeen studies applicable to cancer. Used in conjunction with chemotherapy, radiation and surgery, Coley toxins appear to have the greatest response.² Mechanisms of antitumor effects appear to include the induction of interferon, augmentation of natural killer cell activity, stimulation of lymphoid tissues, activation of macrophages, induction of serum factors that cause necrosis of tumors and increased release of IL-2.³

What is the potential risk or harm of Coley toxin therapy? Side effects to Coley toxins include fever and nausea and less commonly headache, back pain, chills, angina and shock-like reactions. Overwhelming the immune system with Coley toxins might cause a serious infection.⁴

How much does Coley toxin therapy cost? An adaptation of Coley toxins is administered to patients at the Waisbren Clinic in Milwaukee, Wisconsin. Dose schedules and costs vary with individual patients, but recently one injection of mixed bacterial vaccine cost \$75.⁵ The cost per year is between \$3,000 and \$8,000.⁶

For additional information:

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center

P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/

Waisbren Clinic
Web site: www.waisbrenclinic.com/

¹ University of Texas Center for Alternative Medicine (1999). "Coley Toxins Summary." [Online]. Available WWW: http://www.sph.uth.tmc.edu/utcam/summary/coley_sum.htm.

² University of Texas Center for Alternative Medicine (1999). "Coley Toxins." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/coley.htm>.

³ Tang ZY, et al. "Preliminary result of mixed bacterial vaccine as adjuvant treatment of hepatocellular carcinoma." *Medical Oncology and Tumor Pharmacotherapy* 1991; 8:23-28.

⁴ University of Texas Center for Alternative Medicine (1999). "Coley Toxins Summary." [Online]. Available WWW: http://www.sph.uth.tmc.edu/utcam/summary/coley_sum.htm.

⁵ University of Texas Center for Alternative Medicine (1999). "Coley Toxins Summary." [Online]. Available WWW: http://www.sph.uth.tmc.edu/utcam/summary/coley_sum.htm.

⁶ University of Texas Center for Alternative Medicine (1999). "Coley Toxins." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/coley.htm>.

Coriolus Versicolor

What does coriolus versicolor treatment involve? Coriolus versicolor is a mushroom used in Asian cultures to treat cancer. Its active ingredient can be administered as a tea or in capsules.

How is coriolus versicolor thought to treat cancer? The coriolus versicolor mushroom has shown antimicrobial, antiviral and antitumor properties, which have been attributed to a protein-bound polysaccharide called Polysaccharide K (PSK), also known as Krestin.¹ In Japan, PSK is currently used as a cancer treatment, in conjunction with surgery, chemotherapy and/or radiation.²

What has been proven about the benefit of coriolus versicolor? Animal studies have reported that PSK prevents the induction of tumors by chemicals, radiation and other mutagens.³ The University of Texas Center for Alternative Medicine (UTCAM) performed an extensive human studies literature review of coriolus versicolor and found twenty-four studies relevant to cancer. After an in-depth review of the available literature, UTCAM reported that PSK is a "promising candidate for chemoprevention due to the multiple effects on the malignant process, limited side effects and safety of daily oral doses for extended periods of time."⁴

What is the potential risk or harm of coriolus versicolor treatment? Serious side effects of coriolus versicolor treatment are not common. However, nausea, vomiting, diarrhea, skin pigmentation, anorexia, anemia, liver dysfunction, leukopenia and thrombocytopenia have been reported.

How much does coriolus versicolor treatment cost? Retail cost of PSK is from \$120 to \$160 for a 30 day supply of 150 capsules.⁵

For additional information:

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/

¹ Sakagami H and Takeda M. "Diverse biological activity of PSK (Krestin), a protein-bound polysaccharide obtained from basidiomycetes: an overview." *Cancer Epidemiology, Biomarkers and Prevention*. 1993; 4:275-281.

² University of Texas Center for Alternative Medicine Research in Cancer (1999). "Coriolus Versicolor." [Online]. Available WWW:

http://www.sph.uth.tmc.edu/utcam/therapies/cor_ver.htm.

³ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Coriolus Versicolor Summary." [Online]. Available WWW:

<http://www.sph.uth.tmc.edu/utcam/summary/coriolus.htm>.

⁴ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Coriolus Versicolor Summary." [Online]. Available WWW:

<http://www.sph.uth.tmc.edu/utcam/summary/coriolus.htm>.

⁵ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Coriolus Versicolor." [Online]. Available WWW:

http://www.sph.uth.tmc.edu/utcam/therapies/cor_ver.htm.

Craniosacral Therapy

What does craniosacral therapy involve? Craniosacral therapy is a gentle, noninvasive touch therapy. It is similar to chiropractic, but it deals only with the craniosacral system, which includes the membranes and cerebrospinal fluid that surround the brain and spinal cord.¹ Craniosacral therapists examine the system's "rhythm" for balance restrictions or blockages that are believed to cause pain and dysfunction throughout the body.

Craniosacral massage is performed on the bones of the skull and spine to increase the natural flow of cerebrospinal fluids and relieving stress in the skull and membranes surrounding the brain. Each craniosacral session can last thirty minutes to an hour or more.²

How does craniosacral therapy promote wellness and optimize overall health?

Proponents believe that the craniosacral system influences overall health and well-being. Massaging the craniosacral system is thought to restore balance to the central nervous system and the immune system so that the body will be able to function again properly and healthfully.³ Many patients enjoy the prolonged hands-on attention of a craniosacral therapist and find the therapy enhances their well-being, eases tension and relaxes muscles.

What has been proven about the benefit of craniosacral therapy? There is no scientific evidence that supports the basic ideas on which craniosacral therapy is based.⁴ While craniosacral therapists state that they measure and alter craniosacral rhythms, there is no proof that these rhythms actually exist. Craniosacral therapy, despite unsubstantiated claims that it cures illness, can still be helpful. Some patients have benefited from reduced stress and tension, muscle relaxation and alleviation of headaches.⁵

What is the potential risk or harm of craniosacral therapy? Craniosacral therapy is considered harmless for most people. Patients should forego craniosacral therapy if they have a known or suspected brain hemorrhage or aneurysm or any other condition where altering the pressure of the cerebrospinal fluid would not be recommended. Using this therapy in infants and very young children whose skull bones are not yet fused should be avoided.

How much does craniosacral therapy cost? Cost will vary with the practitioner.

For additional information:

The Cranial Academy
8202 Clearvista Parkway, #9-D
Indianapolis, IN 46256
Telephone: (317) 594-0411

¹ American Cancer Society (1997). "Craniosacral Therapy." [Online]. Available WWW: http://www.cancer.org/alt_therapy/craniosacral.html.

² Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 222.

³ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 223.

⁴ American Cancer Society (1997). "Craniosacral Therapy." [Online]. Available WWW: http://www.cancer.org/alt_therapy/craniosacral.html.

⁵ American Cancer Society (1997). "Craniosacral Therapy." [Online]. Available WWW: http://www.cancer.org/alt_therapy/craniosacral.html.

Crystal Healing

What does crystal healing involve? Crystal healing is the belief that certain stones and crystals contain special healing energy that can be transferred into people to provide protection against illness and disease and provide spiritual guidance.¹ Touching, wearing, or placing the crystal on ailing parts of the body transfers this healing energy. Crystal healing also involves placing stones around the home, carrying them in a pocket, wearing them around the neck and touching them as the need arises.² A visit to crystal healers involves the placement of various stones and crystals on acupoints or charkas, as identified by acupuncture and Ayurvedic medicine respectively, to restore vital energy within the patient.

How is crystal healing thought to promote wellness and optimize overall health? Proponents of crystal healing believe that crystals and stones of different colors have different properties. These properties include the ability to purify the blood, calm the mind and revive energy, among others. The main value of crystals is the ability for those who believe in their healing powers to let go of negative emotions, reduce stress and calm anxieties.

What has been proven about the benefit of crystal healing? While formal research on the healing power of crystals has never been performed, there is no evidence or rationale that a crystal or stone can treat illness or aid healing. The placebo response may account for the benefits that do occur (see Appendix G).

What is the potential risk or harm of crystal healing? There is no intrinsic harm in using crystal healing to boost spirits and improve well-being.

How much does crystal healing cost? Visits to crystal healers and the purchase of stones and crystals will vary with the practitioner and crystal shop owner, respectively.

For additional information:

International Association of Crystal Healing Therapists
P.O. Box 344
Manchester M60 2EZ UK
Telephone: (44) (0) 161 702 8191
Web site: www.iacht.co.uk/

¹ American Cancer Society (1997). "Crystal Healing." [Online]. Available WWW: http://www.cancer.org/alt_therapy/crystal.html.

² Cassileth, Barrie R. *The Alternative Medicine Handbook*. New York, NY: W.W. Norton and Company, 1998; pg. 295.

Electromagnetic Therapy

What does electromagnetic therapy involve? Electromagnetic therapy, also known as electromagnetism, bioelectricity, magnetobiology, magnetic field therapy and magnetic healing, applies electromagnetic energy to the body to treat disease. Instead of using drug-based treatments, "energy medicine" proponents apply electrical, magnetic, microwave and infrared devices to treat illness.¹

How is electromagnetic therapy thought to treat cancer? Electricity and magnetic energy exist in the human body. Proponents of electromagnetic therapy believe that when electromagnetic fields of energy within the body become unbalanced, they disrupt the body's chemical makeup and disease and illness occur. Practitioners of electromagnetic therapy believe that they can rebalance these energy fields by applying external electrical energy.

What has been proven about the benefit of electromagnetic therapy? Although many proponents make claims about its value, there is no scientific evidence available that any electromagnetic therapies work. The human body cannot exist without its own internal electricity energy system to ensure heartbeat and muscle contraction, but it is unknown whether applying an external electrical source can help cancer patients. There is also no conclusive evidence that application of magnets to the skin can relieve pain, infection, stress or insomnia.²

What is the potential risk or harm of electromagnetic therapy? Electromagnetic therapy is a noninvasive, drug-free form of treatment. However, the most common complaint of patients using electromagnetic therapy is the development of a skin rash from the adhesive used to attach the device to the skin. Patients with a cardiac pacemaker or defibrillator should avoid this therapy.

How much does electromagnetic therapy cost? Costs will vary depending on which electrical device is used and whether treatment is done at home or in a practitioner's office.

For additional information:

Bio-Electro-Magnetics Institute
2490 West Moana Lane
Reno, NV 89509
Telephone: 775-827-9099

National Institute of Environmental Health Sciences
P.O. Box 1233
Research Triangle Park, NC 27709
Telephone: (919) 541-3345
Web site: www.niehs.nih.gov

¹ American Cancer Society (1997). "Electromagnetic Therapies." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/electromag.html.

² Yahoo! Incorporated (1999). "Yahoo Health: Magnetic Field Therapy." [Online]. Available
WWW:
http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Magnetic_Field_Therapy/.

Essiac

What does Essiac therapy involve? Essiac, an herbal formula, was first provided to cancer patients in 1922 by Renée Caisse, (Essiac is Caisse spelled backwards) a Canadian nurse. Caisse claimed to have learned of this tonic from a woman who had recovered from breast cancer after receiving a remedy from an Ojibwa medicine man. Essiac is comprised of four herbs: Turkish Rhubarb, Slippery Elm bark, Sheep Sorrel and Burdock root. During her life, Caisse would never release the original formula and concentrations, so it is unknown if the Essiac sold today in health-food stores is the original formula.

How is Essiac thought to treat cancer? Caisse believed that the original Essiac formula worked by attacking the tumor directly, first hardening it, then softening it, causing it to break up and be eliminated by the body.¹ Another view is that the Essiac herbs have a strengthening and cleansing function, supporting the body in resisting cancer.²

What has been proven about the benefit of Essiac? The University of Texas Center for Alternative Medicine conducted an extensive human studies literature review of Essiac and found four studies applicable to cancer. However, there have been no clinical trials concerning the use of Essiac for the treatment of cancer in people. Most of the information available is based on the testimonials of patients who have used Essiac as a treatment. Attempts to document the effectiveness of Essiac in the U.S. and Canada have not yielded any conclusive information.³

What is the risk or harm of Essiac treatment? This herbal formula may act like a laxative. Other side effects include nausea, headache, vomiting and increased urination.

How much does Essiac treatment cost? The FDA has not yet approved Essiac as a treatment for cancer. Therefore, Essiac must be purchased at health food stores and via mail-order under various names including Flor-Essence, Vitalitea, Tea of Life and Herbal Essence. Annual cost per patient for one to four daily ounces is between \$440 and \$2,060.⁴ Patients are not currently reimbursed for Essiac purchases.

For additional information:

BC Cancer Agency
600 West 10th Avenue

Vancouver, BC Canada V5Z 4E6
Telephone: (604) 877-6000
Web site: www.bccancer.bc.ca

Rene M. Caisse Memorial Committee
Bracebridge Historical Society
Attn: Ms. Donna M. Ivey, Ms. Elene J. Freer
Box 2231 Bracebridge, Ontario P1L 1W1
Telephone: (705) 645-8111

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/.

¹ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 162.

² University of Texas Center for Alternative Medicine Research in Cancer (1999). "Essiac." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/essic.htm>.

³ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Essiac." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/essic.htm>.

⁴ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Essiac." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/essic.htm>.

Faith Healing

What does faith healing involve? Faith healing is the belief that some people are able to channel divine powers to heal injury and cure disease. Patients who seek the assistance of a faith healer must believe strongly in the healer's divine gifts and ability to focus them on the ill. The most commonly encountered faith healers in the U.S. are revivalist preachers who are viewed on paid television programs or at revival meetings in different cities throughout the country. These preachers are highly skilled and inspiring orators capable of creating emotionally-charged atmospheres while lifting up prayers for healing of the disabled and ill. Faith healing also refers to pilgrimages to religious shrines by patients seeking miracle cures.¹

How is faith healing thought to promote wellness and optimize overall health? Proponents of faith healing believe that a combination of the patient's belief in a divine power and the healer's ability to direct and transmit that power to the patient can heal disease.²

What has been proven about the benefit of faith healing? Patients have been known to be free from disease after visiting a faith healer or seeing one on T.V., but there is no scientific evidence that faith healers are capable of channeling divine powers to cure disease. Because any effect of this therapy requires a unique interaction between the faith of the individual, the healer, and divine intervention in the form of a miracle, it cannot be 'proven' using scientific method.

What is the potential risk or harm of faith healing? There are several risks associated with using faith healers and these include spiritual, financial, and physical risks. From a spiritual perspective, patients may feel guilty or unworthy if the faith healer cannot "cure" their illnesses. From a financial perspective, there is a risk that the individual may be a charlatan, preying on vulnerable people for his/her own personal profit. From a physical perspective, faith healers may encourage patients to give up conventional treatments as evidence of their faith, rather than encouraging a perspective that God can work through a variety of channels, including conventional medicine. Patients should be cautious in trusting supposed healing they see at large revival meeting with faith healers who stand to profit from their effort as the 'healed' may be people who have been planted in the audience.³

How much does faith healing cost? Healers may require a "donation" to their organizations as a fee for their services. These fees can range from a few dollars to a few thousand dollars.

¹ American Cancer Society (1997). "Faith Healing." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/faith.html.

² Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 305.

³ American Cancer Society (1997). "Faith Healing." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/faith.html.

Fasting and Juice Therapies

What do fasting and juice therapies involve? Fasting, or voluntarily abstaining from food, and juice therapy, the consumption of certain fruit and vegetable juices instead of food, are believed by supporters to cleanse and detoxify the body internally. Fasting has long been practiced around the world as a part of religious beliefs to purify the soul. Only recently has fasting been thought to purify the physical body.

How are fasting and juice therapies thought to treat cancer? Proponents believe that fasting or just consuming certain juices aids the body in cleansing itself of toxins and impurities. The immune system is believed by its supporters to work better, heal the body and get rid of poisons when the body's physiologic systems have a chance to rest.¹ Juice can also provide nutrients and calories if a patient is unable to keep solid food down.

What has been proven about the benefit of fasting and juice therapies? The American Cancer Society does not believe that detoxification by fasting is based on scientific fact, nor does it cure cancer.² While short-term fasting does aid weight loss in the severely obese, there is no evidence that it can rid the body of toxins or aid in treatment of disease. The mainstream medical community states the denying the body of necessary nutrients and calories actually weakens the immune system, resulting in the deterioration, not improvement, of health.³ Patients with advanced cancer are encouraged to avoid fasting.⁴ While not a magic cure-all, juice can serve as a valuable nutritional supplement for cancer patients. Juice does not contain fiber, fat and protein and these are needed to maintain energy and reach optimum health.⁵

What is the potential risk or harm of fasting and juice therapies? Fasting and juice therapies can cause fatigue, anemia, dizziness and an irregular heartbeat. Supporters do not believe these are harmful symptoms. In fact, they view them as indicators of movement towards well-being and mental sharpness.⁶ Certain medical conditions such as diabetes can be aggravated by the ingestion of juices. Acidic citrus and tomato juices can irritate the stomach of sensitive patients.

How much do fasting and juice therapies cost? Eating nothing or just juice is sure to cut back on one's grocery bill. Most treatments are self-help remedies and are performed at home. Occasionally, a physician might oversee the patient to ensure no additional health problems develop as a result of the therapy.

For additional information:

American Association of Naturopathic Physicians
601 Valley Street, Suite 105
Seattle, WA 98109
Telephone: (206) 298-0126
Web site: www.naturopathic.org

¹ American Cancer Society (1997). "Fasting and Juice Therapies." [Online]. Available WWW: http://www.cancer.org/alt_therapy/fasting.html.

² American Cancer Society (1997). "Fasting and Juice Therapies." [Online]. Available WWW: http://www.cancer.org/alt_therapy/fasting.html.

³ American Cancer Society (1997). "Fasting and Juice Therapies." [Online]. Available WWW: http://www.cancer.org/alt_therapy/fasting.html.

⁴ Yahoo! Incorporated (1999). "Fasting." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Fasting/.⁴

⁵ Yahoo! Incorporated (1999). "Juice Therapy." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Juice_Therapy/.

⁶ American Cancer Society (1997). "Fasting and Juice Therapies." [Online]. Available WWW: http://www.cancer.org/alt_therapy/fasting.html.

Flower Remedies

What do flower remedies involve? Dr. Edward Bach, an early 1900s homeopath, alleged that underlying emotional problems cause physical illness. He believed that flowers could help remove negative emotions, ultimately leading to the elimination of the physical illness.¹ Thirty-eight different types of wildflowers were identified by Bach as therapeutic and are still used today. Remedies are made using the essence of flowers diluted in water and brandy. Drops of flower remedies are placed under the tongue or in a glass of liquid four times a day. Only the patient's emotional state, not the patient's illness, is relevant when selecting the flower remedy.

How are flower remedies thought to promote wellness and optimize overall health? Proponents claim that flower remedies stabilize unwanted, counterproductive emotional states and promote a general sense of well-being by eliminating emotional problems. The flowers are thought to create a link between the brain and the body to alleviate the negative mental state. Illnesses fostered by negative emotions can then be fought by the body's strengthened immune system.²

What has been proven about the benefit of flower remedies? To date, there have been no scientific studies conducted on flower remedies. While there are numerous anecdotal reports on the benefits of flower remedies, it is likely that any reaction patients have to this therapy is due to a placebo response (see Appendix G).³ Research has shown that depression can lower immune function which may leave individuals more vulnerable to certain illnesses. The subtle effect of flower remedies may therefore be related to its capacity to serve as a pleasant antidote to emotional stress.⁴

What is the potential risk or harm of flower remedies? The remedies are generally regarded as harmless with no physical side effects.⁵ However, patients wishing to avoid alcohol should be aware that the remedies do contain brandy in an extremely diluted form.

How much do flower remedies cost? Flower remedies were designed to be self-help system that can be used without professional advice. Floral essences are available from several sources and may or may not be prepared using the Bach method. Cost will vary depending on the manufacturer.

For additional information:

The Dr. Edward Bach Centre and Foundation
Mount Vernon, Bakers Lane
Sotwell, Oxon OX10 0PZ, UK

Telephone: 011-44-1491-834678
Web site: www.bachcentre.com/index.html
Flower Essence Society
P.O. Box 459
Nevada City, CA 95959
Telephone: (800) 736-9222
Web site: www.flowersociety.org/

¹ American Cancer Society (1997). "Flower Remedies." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/flower.html.

² Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 83.

³ American Cancer Society (1997). "Flower Remedies." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/flower.html.

⁴ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 85.

⁵ Yahoo! Incorporated (1999). "Yahoo Health: Flower Remedies." [Online]. Available WWW:
http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Flower_Remedies/.

Garlic

What does garlic therapy involve? Garlic is used as a supportive dietetic measure for cancer prevention. Therapy involves ingesting four grams of garlic daily. Garlic can be eaten raw, cooked, baked or taken in capsule form. Cooked garlic is less effective as a therapy because the active ingredient, allicin, becomes denatured in the heating process.

How is garlic thought to promote wellness and optimize overall health? When incorporated into the diet, garlic can help prevent various ailments including arteriosclerosis, common colds, cough/bronchitis, fevers and infection.¹ Garlic may also reduce the risk of throat, stomach and colon cancer by stimulating the immune system and acting as a natural antibiotic and antioxidant.² Allicin is the major active compound of garlic. The compound is an antibacterial agent and is released when garlic bulbs are crushed.

What has been proven about the benefit of garlic treatment? Two anti-carcinogenic agents in garlic were identified, and when administered to rats, in conjunction with exposure to certain colon or esophageal carcinogens, significantly reduced the growth and progression of pre-cancerous lesions.³ A University of Texas Center for Alternative Medicine literature review of garlic identified twelve human studies applicable to cancer. Several of the studies reported that consumption of garlic and other allicin-containing vegetables was associated with a reduced risk of several types of cancer.⁴ Garlic should only be used as a preventative agent, not as a curative therapy.

What is known about the potential risk or harm of garlic? Some patients may experience heartburn and gas from ingestion of garlic. Frequent handling of garlic may lead, on rare occasion, to allergic reactions. Garlic is known to have some anti-clotting activity. Therefore, patients taking anticoagulant drugs, including aspirin, should check with their health care providers before beginning therapy. Garlic may also decrease blood sugar levels so glucose control may be affected.⁵

How much does garlic cost? Garlic bulbs can be purchased at any grocery store or grown in one's own garden. Garlic capsules can be purchased for approximately \$18.00 for 250 capsules.⁶

For additional information:

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/

¹ Anonymous. "Allium Sativum: Garlic." *PDR for Herbal Medicines*. Montvale, NJ: Medical Economics Company, Inc., 1998; pg. 626.

² University of Texas Center for Alternative Medicine Research in Cancer (1999). "Garlic Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/garlic.htm>.

³ Wargovish MJ, Uda N, Woods C, Velasco M and McKee K. "Allium vegetables: their role in the prevention of cancer." *Biochemical Society Transactions*. 1996; 24:811-814.

⁴ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Garlic." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/garlic.htm>.

⁵ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Garlic Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/garlic.htm>.

⁶ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Garlic Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/garlic.htm>.

Gerson Therapy

What does the Gerson therapy involve? Dr. Max Gerson created the Gerson program in 1945 based on the belief that cancer patients have sodium and potassium imbalances in their bodies. The Gerson program is a nutritional approach to cancer treatment and requires that patients comply with a vegetarian diet that contains no sodium, extreme fat restriction, high potassium supplementation and large amounts of fruit and vegetable juices. Frequent coffee enemas are given to detoxify the liver and the body. Previously, patients were required to drink three glasses of fresh calf liver daily but this aspect has since been discontinued because several patients experienced toxicity.

How is the Gerson therapy thought to treat cancer? The program consists of three central tenets that claim cancer patients do not efficiently metabolize carbohydrates, fats, proteins, vitamins and minerals:¹

1. enzymes are critical to support the vitality of intestinal flora
2. the liver and other vital organs must be detoxified and functioning efficiently to support the breakdown of tumors
3. potassium and sodium intake must be balanced, usually by sodium restriction and potassium supplementation, to restore metabolism, and ultimately, health.^{2,3}

What has been proven about the benefit of the Gerson therapy? Laboratory studies in 1983⁴ and 1985⁵ provided evidence that upsetting the potassium/sodium balance may play a role in malignancy. The University of Texas Center for Alternative Medicine conducted an extensive human studies literature review of the Gerson therapy and found six studies applicable to cancer. Several of the studies indicated tumor regression and higher survival rates when compared to historical controls and in patients treated with the Gerson therapy, especially for patients with melanoma, colorectal and ovarian cancers. However, no statistics were presented to indicate if these differences could have occurred through chance.⁶ Michael Lerner states in his book Choices in Healing that "the Gerson therapy does not approach being a decisive cure for any type of cancer." However, he continues to predict "that the therapy will prove to be a significant adjunct to the judicious use of conventional therapies for those cancers [melanoma, colorectal, ovarian]. Further, it may also improve outcomes for some cancers where conventional treatment would bring few-if any-results."⁷

What is the potential risk or harm of the Gerson therapy? Patients may experience flu-like feelings, loss of appetite, perspiration with a strong odor, weakness, dizziness, cold sores and fever blisters while receiving treatment.

Patients may also suffer high fever, intestinal cramping, diarrhea and vomiting. Coffee enemas may produce colitis, severe inflammation of the colon, and fluid and electrolyte imbalances.⁸

How much does the Gerson therapy cost? At the Gerson clinic in Tijuana, Mexico, treatment costs \$4,000 per week plus an additional \$200 per week for laboratory testing. Some insurance providers reimburse costs associated with treatment.

For additional information:

Choices in Healing by Michael Lerner. Cambridge, MA: MIT Press, 1998.

Gerson Institute
P.O. Box 430
Bonita, CA 91908-0430
Telephone: (619) 585-7600
Web site: www.gerson.org

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/.

¹ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Gerson." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/gerson.htm>.

² Lerner, Michael. Choices in Healing: Integrating the Best of Conventional and Complementary Approaches to Cancer. Cambridge, MA: MIT Press, 1994; pg. 267-268.

³ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Gerson." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/gerson.htm>.

⁴ Imre Zs.-Nagy et al. "Correlation of malignancy with intracellular Na-K ratio in human thyroid tumors." *Cancer Research* 1983; 43:5395-5397.

⁵ Lai, Chiu-Nan and Becker, Fredrick F. "Potassium-induced reverse transformation of cells infected with a temperature-sensitive transformation mutant virus." *Journal of Cellular Physiology* 1985; 125:259-262.

⁶ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Gerson." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/gerson.htm>.

⁷ Lerner, Michael. Choices in Healing: Integrating the Best of Conventional and Complementary Approaches to Cancer. Cambridge, MA: MIT Press, 1994; pg. 280.

⁸ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Gerson Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/gerson.htm>.

Govallo Therapy

What does the Govallo therapy involve? Valentin Govallo, MD, PhD, a Russian physician, developed the Govallo therapy after researching the similarities between the mother-fetus and host-tumor immune interaction systems.¹ In 1975, Dr. Govallo began treating cancer patients with an extract derived from placental chorionic villi obtained during live full-term deliveries. Currently, therapy at the Immune Augmentative Therapy (IAT) clinic in the Bahamas consists of two injections. The dose varies depending on the severity of the patient's condition.

How is Govallo therapy thought to treat cancer? The human body possesses the ability to recognize cell systems which are not normal and of an autologous origin, such as bacteria and foreign particles, and to destroy them. Thus, the immune system must be suppressed when a patient receives a transplant organ, for example, so that organ rejection does not occur. Along these same lines, Govallo reasoned that malignant cells survive because they possess their own defense system that protects them from attack by the patient's immune system so that they are not "rejected" by the body. In contrast to most immunotherapies that are designed to stimulate the immune system, the goal of the Govallo therapy is to weaken or suppress factors within the tumor itself that cripple the normal immune response of the patient.² Once those "suppression factors" are shut down, the immune system can function normally and destroy the malignant tissues.

What has been proven about the benefit of the Govallo therapy? The University of Texas Center for Alternative Medicine conducted an extensive human studies literature review of the Govallo therapy and found two case reports relevant to cancer. These case reports claimed better three, five and ten year survival rates for patients who received placental extract injections compared to controls.³ However, no statistical results were provided.

What is the potential risk or harm of the Govallo therapy? Reported side effects include fever, shivering and light weakness. There are no known risks associated with the Govallo therapy.

How much does the Govallo therapy cost? The Immune Augmentative Therapy clinic in Freeport, Bahamas charges \$8,500 for Govallo therapy. There is also a \$50 charge for a follow up test of immunocompetence and \$1,500 for each additional booster shot. A protocol change has been proposed which would reduce the cost of the treatment.

For additional information:

Center for Empirical Medicine
Telephone: (877) 297-4343
Web site: www.empiricaltherapies.com

Immune Augmentative Therapy Clinic
IAT (Bahamas) Ltd.
P.O. Box F-42689
Freeport, Grand Bahama, Bahamas
Telephone: (242) 352-7455
Web site: www.iatclinic.com

University of Texas Center for Alternative Medicine Research in Cancer
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Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/.

¹ University of Texas Center for Alternative Medicine (1999). "Govallo." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/Govallo.htm>.

² University of Texas Center for Alternative Medicine (1999). "Govallo." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/Govallo.htm>.

³ Govallo VI. Immunology of Pregnancy and Cancer. Nova Science Publishers, Inc.; 1993.

Green Tea

What does green tea therapy involve? Green tea comes from the leaves of the same plant (*Camellia Sinesis*) as black tea but differs in its preparation. In Asian countries, an average of three cups of green tea are ingested per day to promote health and satisfy thirst.

How is green tea thought to promote wellness and optimize overall health? Green tea is reported to lower total cholesterol levels, reduce platelet stickiness, lower blood pressure and enhance the immune system. Green tea may also lessen the risk of cancers of the upper digestive tract.¹ Green tea contains active compounds called polyphenols, and several studies have shown that these polyphenols act as antioxidants and may possibly inhibit tumor formation and growth.²

What has been proven about the benefit of green tea? Animal studies have reported that green tea polyphenols reduce the spread of cancer cells.³ Seventeen human studies on the preventive effects of green tea on cancer have been identified and reviewed by the University of Texas Center for Alternative Medicine (UTCAM). Ten of the seventeen studies showed that the consumption of green tea had a protective effect against the development of several cancer types. However two studies had opposite findings.⁴ Green tea may be consumed for its health promoting effects but should not be thought of as a curative therapy.

What is the potential risk or harm of green tea? Side effects of tea consumption include insomnia, nervousness and heart rate irregularities due to the caffeine in the tea. Patients with sensitive stomachs may experience heartburn, reduction of appetite or diarrhea due to the tannin and chlorogenic acid content of the tea.⁵ Green tea interferes with absorption of alkaline medications. Patients taking any medicines should check with their health care provider before beginning tea therapy.

How much does green tea cost? Green tea can be purchased in bulk or as packaged tea bags. Bulk tea can average from \$30 to \$60 per pound. Packaged tea bags begin at \$2.50 for 12 bags.

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¹ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Green Tea Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/greentea.htm>.

² University of Texas Center for Alternative Medicine Research in Cancer (1999). "Green Tea." [Online]. Available WWW: <http://www.shp.uth.tmc.edu/utcam.therapies/greentea.htm>.

³ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Green Tea Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/greentea.htm>.

⁴ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Green Tea." [Online]. Available WWW: <http://www.shp.uth.tmc.edu/utcam.therapies/greentea.htm>.

⁵ Anonymous. "Camellia Sinensis: Green Tea." *PDR for Herbal Medicines*. Montvale, NJ: Medical Economics Company, Inc., 1998; pg. 710.

Guided Imagery

What does guided imagery involve? Guided imagery is a visualization technique, referred to as a "focused daydream" by some practitioners, which helps patients to focus on positive images to heal their bodies.¹ Guided imagery practitioners will teach patients general relaxation exercises and help them build detailed images in their minds. Patients are encouraged to picture their tumors shrinking in one local area or their whole body freeing itself of cancer. The Simonton method of guided imagery, developed by oncologist O. Carl Simonton and his wife, was designed to help patients undergoing standard treatments for cancer. This method teaches cancer patients to picture their immune system cells "gobbling up" cancer cells like "Pac Man," and destroying them.²

How is guided imagery thought to promote wellness and optimize overall health? Guided imagery is based on the idea that the mind can affect the functions of the body. Proponents suggest that stimulating the brain through imagery can have a direct effect on both the endocrine and nervous systems, which lead to changes in immune system function. Guided imagery is used to promote relaxation, reduce stress and help the mind influence the body in positive ways.³

What has been proven about the benefit of guided imagery? There is some evidence that guided imagery can lower blood pressure, but there is no scientific proof for the reduction of pain and anxiety that some proponents claim.⁴ The best available research to date indicates that guided imagery has value as a relaxation technique and is therefore useful as a complementary therapy. The Simonton method is considered an effective tool by many oncologists to keep patients' spirits up, but has not been proven to increase patient survival time.⁵

What is the potential risk or harm of guided imagery? There are no known side effects or risks of guided imagery.

How much does guided imagery cost? Guided imagery is taught in small classes or in one-on-one sessions. Costs will vary depending on class size and practitioner. Patients may also try to learn guided imagery from books and audiotapes, an inexpensive alternative to classes.

For additional information:

Academy for Guided Imagery
P.O. Box 2070
Mill Valley, CA 94942
Telephone: (800) 726-2070

Web site: www.healthy.net/university/profess/schools/edu/imagery/index.html

¹ American Cancer Society (1997). "Imagery and Visualization Techniques." [Online]. Available WWW: http://www.cancer.org/alt_therapy/imaging.html.

² Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 128.

³ American Cancer Society (1997). "Imagery and Visualization Techniques." [Online]. Available WWW: http://www.cancer.org/alt_therapy/imaging.html.

⁴ Yahoo! Incorporated (1999). "Guided Imagery." [Online]. Available WWW:

http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Guided_Imagery/.

⁵ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 129-130.

Homeopathy

What does homeopathy involve? Homeopathy was developed by Samuel Hahnemann, an 18th century German doctor. Volumes of information from Hahnemann's research have been compiled and serve as the Homeopathic Pharmacopoeia. This is still in use today. Homeopathic remedies are made from assorted plant, animal, mineral and insect products diluted thousands of times in water or alcohol. In fact, the majority of homeopathic remedies are so diluted that it is impossible to detect the original active ingredient in the laboratory. Homeopathy should not be confused with herbal medicine. Homeopathic practitioners claim that the medicinal solutions contain a "trace memory" of the original substance.

During a homeopathic visit, the patient is asked to describe all problems in detail as well as a complete description of everything that characterizes them, especially feelings, sensations, sensitivity, psyche, and all that concerns them in terms of energy, sleep, appetite, digestion, etc. The homeopathic physician will complete this study with a physical examination. This thorough and initial interview requires approximately one to three hours.

How is homeopathy thought to treat cancer? Homeopathy is based on Hahnemann's idea of "like cures like". He postulated that a substance that caused specific symptoms should also relieve them. Hahnemann tested a huge number of plant, animal and mineral substances on himself in a process called "proving," observing the symptoms they produced and categorizing them as cures for disorders that cause similar problems.¹ Although homeopathy is not considered an antitumor therapy, it may be able to play a secondary role in cancer treatment, possibly directed at enhancing overall nerve and immune function.²

What has been proven about the benefit of homeopathy? The University of Texas Center for Alternative Medicine conducted an extensive literature review of homeopathy and could not find any clinical trials concerning the use of homeopathy for cancer treatment.³ However, five cases were reported. Only one of the five cases reported positive results when homeopathic and mistletoe treatments were combined.⁴

What is the potential risk or harm of homeopathy? While homeopathic remedies are sold over-the-counter, like vitamins and herbal medicines, this is not classical homeopathy. Classic homeopathy involves careful assessment and individualization of treatment, so treatments should only be prescribed by a trained homeopathic practitioner. Serious unexpected adverse effects of homeopathic medicines are rare. "Aggravation reactions," when symptoms become acutely and transiently worse after starting homeopathic treatment, have been described and are said by homeopaths to be a good

prognostic factor. They may cause concern, especially if patients and doctors are not adequately forewarned.⁵ Patients who need to avoid alcohol should forego homeopathic medicines with an alcohol base.

How much does homeopathy cost? An initial visit with a practitioner may cost \$100 - 300. Management and follow-up is usually less than \$100. Individual remedy costs vary, depending on the pharmacy, and are usually inexpensive. These products are rarely reimbursed by insurance. However, homeopathy is covered by the national health care plans in England and Germany. By law, health care plans in Oregon must also cover visits to homeopaths.

For additional information:

Homeopathic Educational Services
2124 Kittredge Street
Berkeley, CA 94704
Telephone: (510) 649-0294
Web site: www.homeopathic.com

The National Center for Homeopathy
801 North Fairfax Street, Suite 306
Alexandria, VA 22314
Telephone: (703) 548-7790
Web site: www.homeopathic.org

¹ Yahoo! Incorporated (1999). "Yahoo Health: Homeopathy." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Homeopathy/.

²University of Texas Center for Alternative Medicine Research in Cancer (1999). "Homeopathy." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/homeopathy.htm>.

³ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Homeopathy." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/homeopathy.htm>.

⁴ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Homeopathy." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/homeopathy.htm>.

⁵ Vickers, Andrew; Zollman, Catherine. ABC of complementary medicine: Homoeopathy. British Medical Journal 1999, Volume 319(7217):1115-1118

Hoxsey

What does the Hoxsey therapy involve? In the early 1900's, Harry Hoxsey received an herbal formula from his grandfather, and he began treating cancer patients with it in the 1920s. The Hoxsey treatment involves two mixtures. One to be used externally, applied directly to the skin and includes "a red paste containing antimony trisulfide, zinc chloride, and bloodroot and a yellow powder containing arsenic sulfide, sulfure and talc."¹ The other is used internally and is "a liquid containing licorice, red clover, burdock root, stillingia root, barberry, Cascara, prickly ash bark, buckthorn bark and potassium iodide."² While taking the Hoxsey formula, patients are also encouraged to restrict their diet, use immune stimulants such as vitamin C and adopt a positive mental outlook.

How is Hoxsey formula thought to treat cancer? The external Hoxsey mixture is thought to selectively destroy malignant tissue. The internal Hoxsey mixture is a liquid said to strengthen the immune system. Hoxsey believed his treatment allows the body to create an environment in which healing and tumor destruction can occur.³

What has been proven about the benefit of the Hoxsey formula? The University of Texas Center for Alternative Medicine (UTCAM) performed an extensive human studies literature review of the Hoxsey treatment and found two studies applicable to cancer. Both of the studies report response to therapy although neither study used controls against which to measure response. Individual components of the formula have been tested in the laboratory or in animals. Seven of the nine herbs in the formula have shown some anti-cancer activity.⁴ UTCAM recommends that more studies of both the external and internal components of the Hoxsey formula are needed. The American Cancer Foundation urges cancer patients to not seek treatment with the Hoxsey formula until more evidence of the therapy's objective benefits exists.⁵

What is the potential risk or harm of the Hoxsey formula? There has been no reported toxicity from the Hoxsey formula. However, some of the ingredients of the Hoxsey formula can cause nausea, vomiting and diarrhea if taken in large quantities.⁶ Barberry root, one of the Hoxsey formula ingredients, caused swelling of the kidneys and cardiotoxicity in rabbits. Toxic reactions known as "iodisms" (pimples, excessive secretion of the eyes or nose, impotence and a mumps-like condition of the salivary gland) may result from taking potassium iodide.

How much does the Hoxsey formula cost? The treatment is available at a clinic in Tijuana, Mexico run by Mildred Nelson, an old nurse of Hoxsey's. The current cost for the Hoxsey treatment is \$3,500. This price includes follow-up visits and a life-time supply of the herbal preparation. X-rays, lab tests and physical exams cost an additional

\$450 to \$850 per visit.⁷ The patient is also responsible for travel costs to and from Mexico. Nurse Nelson will barter with patients who are unable to pay for the therapy.⁸

For additional information:

Hoxsey clinic: Bio-Medical Center
PO Box 727 (615 General Ferreira)
Colonia Juarez, Tijuana, B.C. MEXICO
Telephone: (706) 685-7334

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¹ CA (Anonymous). "Questionable methods of cancer management: 'nutritional therapies'." *CA: a Cancer Journal for Clinicians*. 1993, Sept-Oct; 43(5):309-319.

² CA (Anonymous). "Questionable methods of cancer management: 'nutritional therapies'." *CA: a Cancer Journal for Clinicians*. 1993, Sept-Oct; 43(5):309-319.

³ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Hoxsey Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/hoxsey.htm>.

⁴ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Hoxsey." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/hoxsey.htm>.

⁵ CA (Anonymous). "Hoxsey Method/Bio-Medical Center." *CA: a Cancer Journal for Clinicians*. 1990, Jan-Feb; 40(1):51-55.

⁶ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Hoxsey Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/hoxsey.htm>

⁷ BC Cancer Agency (1997). "Hoxsey's Herbal Tonic/Hoxsey Herbal Treatment." [Online]. Available WWW: <http://www.bccancer.bc.ca/uctm/16.html>.

⁸ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Hoxsey." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/hoxsey.htm>.

Hydrazine Sulfate

What does hydrazine therapy involve? Hydrazine sulfate is a chemical commonly used in industrial products such as rocket fuel, rust-prevention agents and insecticides. It is also used to treat symptoms associated with cancer. Hydrazine sulfate is usually taken orally with meals but may also be injected. Treatment lasts for 35 to 40 days. After treatment is stopped for a period of two to six weeks, the course can be repeated as needed.

How is hydrazine sulfate thought to manage specific symptoms of cancer, side effects of conventional therapies and/or control pain? Hydrazine sulfate is proposed to treat cancer-associated cachexia (the extensive loss of appetite, body weight and muscle mass) by increasing appetite, reducing weight loss and improving survival.¹ This general "wasting away" syndrome affects about half of people with cancer, especially those with advanced disease. According to some researchers, tumors obtain required energy for replication and growth from normal body functions, which causes an energy "drain" from vital body functions. Hydrazine sulfate is claimed to deprive the tumor of the energy it needs and, therefore, halt the progressive decline of the patient.² Hydrazine sulfate may also act secondarily to stabilize tumors.³

What has been proven about the benefit of hydrazine sulfate therapy? The University of Texas Center for Alternative Medicine (UTCAM) conducted an extensive human studies literature review of hydrazine sulfate and found twenty-one studies applicable to cancer. Results varied in the studies reviewed by UTCAM. Some randomized clinical trials report that hydrazine sulfate did not increase patient survival time and only resulted in temporary alleviation from pain, fever and weight loss. Other studies report that patients treated with hydrazine sulfate had more normal body metabolism, weight gain and improved appetite.⁴ In 1994, the National Cancer Institute supported four randomized clinical trials. One study reported a survival advantage for patients with non-small cell lung cancer treated with hydrazine sulfate compared to control patients. The other three studies failed to demonstrate any significant advantages of hydrazine sulfate treatment.⁵

What is the potential risk or harm of hydrazine sulfate therapy? Hydrazine sulfate may produce some transient side effects including nausea, vomiting, itching, dizziness, impaired motor function and numbness of the extremities.⁶ Hydrazine sulfate is incompatible with tranquilizers, barbiturates, alcohol and foods high in tyramine (i.e., aged cheeses, fermented products). Combined use destroys the effectiveness of the drug and increases patient morbidity. Liver damage may result from very high doses of hydrazine sulfate. At least one death has been reported due to kidney and liver damage from hydrazine sulfate.⁷ Hydrazine sulfate is not known to be carcinogenic in humans.

How much does hydrazine sulfate therapy cost? Hydrazine sulfate is not currently approved for use in the complementary care of cancer patients in the U.S. and cannot be prescribed by doctors for patients. Hydrazine sulfate costs approximately \$25 for 100 capsules.

For additional information:

Syracuse Cancer Research Institute, Inc.
Presidential Plaza
600 East Genesee Street
Syracuse, NY 13202-311
Telephone: (315) 472-6616

Web site: www.ngen.com/hs-cancer/

(The Institute will not respond to patients or individuals. Health care providers must contact the Institute directly.)

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¹ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Hydrazine Sulfate Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/hydrazine.htm>.

² American Cancer Society (1999). "Hydrazine Sulfate." [Online]. Available WWW: http://www.cancer.org/alt_therapy/hydrazine.html.

³ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Hydrazine Sulfate Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/hydrazine.htm>

⁴ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Hydrazine Sulfate." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/hydrazine.htm>.

⁵ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Hydrazine Sulfate." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/hydrazine.htm>.

⁶ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Hydrazine Sulfate Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/hydrazine.htm>.

⁷ Hainer, Mark I; Tsai, Naoky; Komura, Steven T; and Chiu, Charles L. Fatal Hepatorenal Failure Associated with Hydrazine Sulfate. *Annals of Internal Medicine*, 2000, 133(11):877-880

Hydrogen Peroxide

What does hydrogen peroxide therapy involve? Hydrogen peroxide is a chemical compound of hydrogen and oxygen molecules. It is a common household solution that is used as a disinfectant, in toothpaste and mouthwash and as a bleaching agent. It is also used in a variety of industrial processes from chemical manufacturing to rocket fuel. In health food stores, 30% solutions of hydrogen peroxide have been advertised as a cancer remedy. Treatments with hydrogen peroxide are also called hyperoxygenation, oxymedicine, oxidative therapy, bio-oxidative therapy and oxydology.¹ Hydrogen peroxide is administered orally, rectally, by injection, or by soaking affected parts of the body in the solution.²

How is hydrogen peroxide thought to treat cancer? Based on the work of two time Nobel Prize in Medicine recipient Otto Warburg, M.D., proponents believe that cancer cells grow best in an environment of little oxygen, or anaerobic conditions. It is claimed that the administration of hydrogen peroxide, an oxygen-rich solution, restores the proper oxygen balance and selectively attacks and kills cancer cells.

What has been proven about the benefit of hydrogen peroxide treatment? According the American Cancer Society, there is no scientific evidence that hydrogen peroxide is a safe, effective or useful cancer treatment. They encourage patients to “remain in the care of qualified doctors who use proven methods of treatment and approved clinical trials of promising new treatments.”³ Current mainstream medical applications of hydrogen peroxide are limited to 1.5% to 3% solutions used as surface disinfectants and wound cleansers.

What is the potential risk or harm of hydrogen peroxide treatment? The Centers for Disease Control and Prevention report that hydrogen peroxide solutions concentrated above ten percent are toxic. It can be harmful to breathe vapors, ingest or have skin contact with hydrogen peroxide.⁴ Hydrogen peroxide ingestion can also result in chemical burns in the throat and severe poisoning.⁵

How much does hydrogen peroxide treatment cost? Hydrogen peroxide solutions can be purchased at any pharmacy. Higher concentrated solutions are available in many health food stores. The cost will vary with the pharmacy or health food store.

For additional information:

BC Cancer Agency
600 West 10th Avenue
Vancouver, BC Canada V5Z 4E6
Telephone: (604) 877-6000
Web site: www.bccancer.bc.ca

¹ American Cancer Society (1998). "Hydrogen Peroxide Treatment." [Online]. Available WWW: http://www.cancer.org/alt_therapy/hydrogenPeroxide.html.

² American Cancer Society (1998). "Hydrogen Peroxide Treatment." [Online]. Available WWW: http://www.cancer.org/alt_therapy/hydrogenPeroxide.html.

³ American Cancer Society (1998). "Hydrogen Peroxide Treatment." [Online]. Available WWW: http://www.cancer.org/alt_therapy/hydrogenPeroxide.html.

⁴ American Cancer Society (1998). "Hydrogen Peroxide Treatment." [Online]. Available WWW: http://www.cancer.org/alt_therapy/hydrogenPeroxide.html.

⁵ CA (Anonymous). "Questionable methods of cancer management: hydrogen peroxide and other 'hyperoxygenation' therapies." *CA: a Cancer Journal for Clinicians* 1993; 43:47-56.

Hydrotherapy

What does hydrotherapy involve? Hydrotherapy is the use of water, ice and steam as a medical treatment. It has been used by many cultures throughout human history from Native American "sweat lodges" to early Roman and Turkish therapeutic bath houses. Types of hydrotherapy include whirlpool baths for relaxation, ice packs to reduce swelling, warm water to cleanse wounds, humidifiers and liquids to combat dryness and dehydration, steam baths and colonic irrigation.

How is hydrotherapy thought to promote wellness and optimize overall health? Hydrotherapy can provide relaxation and symptom relief from a variety of ailments.¹ Heat-based therapies cause dilation of blood vessels and increased circulation, which act to relieve pain. Cold-based therapies constrict blood vessels, reduce circulation and decrease swelling. Whirlpool baths and spas reduce stress and increase relaxation.

What has been proven about the benefit of hydrotherapy? The American Cancer Society states "hydrotherapy is an accepted, useful form of symptom treatment for many ailments. The ability to promote relaxation in its many forms is well-established."² However, internal forms of hydrotherapy should be used with caution. Colonic irrigation can be dangerous and lead to electrolyte imbalance. Claims that it helps treat cancer have never been substantiated.

What is the potential risk or harm of hydrotherapy? The majority of external hydrotherapy treatments are harmless. However, cases of bacterial diseases have been reported from users of contaminated public bathhouses. Excessive hot or cold water can burn the skin. Colonic irrigation can perforate the colon and may be harmful to the body's electrolyte balance.³

How much does hydrotherapy cost? Cost will vary depending on what form of hydrotherapy is chosen and the supplies necessary to participate in the therapy. For example, soaking in a hot bath is an inexpensive option in comparison to the costs associated with receiving treatment at a spa or resort.

For additional information:

American Association of Naturopathic Physicians
601 Valley Street, Suite 105
Seattle, WA 98109
Telephone: (206) 298-0126
Web site: www.naturopathic.org

American Naturopathic Medical Association
P.O. Box 96273
Las Vegas, NV 89193
Telephone: (702) 897-7053
Web site: www.anma.com

¹ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 228.

² American Cancer Society (1997). "Hydrotherapy." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/hydro.html.

³ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 230.

Hypnosis

What does hypnosis involve? Hypnosis is a state of focused attention during which consciousness is altered and distractions are blocked, allowing a patient to focus intensely on one item. The hypnotic state resembles sleep, but the patient is alert and completely in control, although deeply relaxed. Generally, ninety percent of the population can be hypnotized.

How is hypnosis thought to manage specific symptoms of cancer, side effects of conventional therapies and/or control pain? Hypnotherapy can help divert a patient's attention from cancer pain by evoking a state of deep relaxation and increasing the ability to respond to suggestion.¹ Others have suggested that hypnosis can control nausea and vomiting caused by cancer medications.² Many believe that hypnosis involves a loss of control by the patient, but this is incorrect. Control by the patient is fundamental as it is the extraordinary focus of attention that makes it possible to influence bodily states. Many patients learn self-hypnosis so that they may use the technique whenever it is needed to control symptoms.³

What has been proven about the benefit of hypnosis? The value of hypnotism in producing several health benefits is widely accepted. The American Medical Association approved hypnotherapy as a valid medical treatment in 1958.⁴ Studies at Stanford University showed the ability of patients to block a natural response, such as pain, through intense concentration.⁵ While the medical community is aware of the lasting benefits of hypnosis, no one is certain of the reason behind the benefits. Some scientists believe that hypnosis can cause the brain to release natural pain killers, called enkephalins and endorphins, to alleviate pain. Others believe that hypnosis acts through the unconscious mind and the power of suggestion.⁶ Either way, the American Cancer Society endorses hypnotherapy as a means of reducing pain, promoting relaxation and reducing stress.⁷ Despite its documented benefits, hypnosis cannot cure cancer or any other serious disease.

What is the potential risk or harm of hypnosis? Hypnotherapy is considered safe for all patients, no matter what the medical condition.

How much does hypnosis cost? Costs will vary depending on the practitioner.

For additional information:

Milton H. Erickson Foundation
3606 North 24th Street
Phoenix, AZ 85016

Telephone: (602) 956-6196
Web site: www.erickson-foundation.org/Default.htm
The National Guild of Hypnotists
P.O. Box 308
Merrimack, NH 03054
Telephone: (603) 429-9439
Web site: www.ngh.net/

¹ American Cancer Society (1998). "Hypnosis." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/hypnosis.html.

² Yahoo! Incorporated (1999). "Yahoo Health: Hypnotherapy." [Online]. Available WWW:
http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Hypnotherapy/.

³ Cassileth, Barrie R. *The Alternative Medicine Handbook*. New York, NY: W.W. Norton and Company, 1998; pg. 124.

⁴ Yahoo! Incorporated (1999). "Yahoo Health: Hypnotherapy." [Online]. Available WWW:
http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Hypnotherapy/.

⁵ American Cancer Society (1998). "Hypnosis." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/hypnosis.html.

⁶ Yahoo! Incorporated (1999). "Yahoo Health: Hypnotherapy." [Online]. Available WWW:
http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Hypnotherapy/.

⁷ American Cancer Society (1998). "Hypnosis." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/hypnosis.html.

Immune Augmentation Therapy (IAT)

What does Immune Augmentation Therapy involve? Dr. Lawrence Burton, PhD, a zoologist, developed the theories behind IAT while working with fruit flies at California Institute of Technology. Therapy involves daily or twice-daily tests of the levels and proportions of four proteins. Subcutaneous injections are then administered to bring these four proteins back into equilibrium. A computer program determines doses. The four proteins are:¹

1. tumor antibody factor (TNF) - *responsible for destruction of cancer cells*
2. tumor complement factor (TCF) - *responsible for stimulation of "tumor antibody"*
3. blocking protein factor (BPF) - *responsible for repression of "tumor antibody"*
4. deblocking protein factor (DPF) - *responsible for blocking protein neutralization*

All proteins used in IAT are derived from the blood of healthy donors, with the exception of TCF, which comes from the patient.

How is Immune Augmentation Therapy thought to treat cancer? Dr. Burton believes that cancer grows uncontrolled when the body's immune system is not in balance or is immunosuppressed, characterized by a state when BPF levels are high and TCF and DPF levels are low. He has suggested that TNFs attack the tumor and DPFs disable the BPFs that prevent the patient's immune system from detecting and fighting the cancer. IAT tries to restore the natural balance of systemic levels of tumor killing immune complexes.²

What has been proven about the benefit of Immune Augmentation Therapy? The University of Texas Center for Alternative Medicine conducted an extensive human studies literature review and found two studies applicable to cancer. Both studies reported an increase in mean survival time but neither reported statistics to verify their findings.³ IAT is not available in the U.S. If sufficient data is generated that suggests that IAT has significant antitumor activity, the FDA will allow clinical trials in the U.S.⁴ The American Cancer Society urges patients with cancer not to seek IAT until evidence of treatment efficacy is found.⁵

What is the potential risk or harm of Immune Augmentation Therapy? The U.S. Center for Disease Control has received various reports of skin abscesses at the IAT injection site. There have also been claims made that some samples of the blood products used in IAT were contaminated with bacteria, hepatitis and HIV.⁶ Tiredness and muscle fatigue have been reported by the IAT clinic.⁷

How much does Immune Augmentation Therapy cost? Four weeks of therapy at the IAT clinic in the Bahamas costs \$7,500. Each week thereafter up to eight weeks costs \$700. Supplies for home maintenance run \$50 per week.⁸ These fees do not include transportation to the Bahamas, lodging or meals.

For additional information:

Immune Augmentative Therapy Clinic
IAT (Bahamas) Ltd.
P.O. Box F-42689
Freeport, Grand Bahama, Bahamas
Telephone: (242) 352-7455
Web site: www.iatclinic.com

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/

¹ Immune Augmentation Therapy Clinic. "Treatment." [Online]. Available WWW: <http://www.iatclinic.com/page4.html>.

² Immune Augmentation Therapy Clinic. "Treatment." [Online]. Available WWW: <http://www.iatclinic.com/page4.html>.

³ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Immune Augmentation Therapy." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/immune.htm>.

⁴ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Immune Augmentation Therapy." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/immune.htm>.

⁵ CA (Anonymous). "Immuno-augmentative therapy (IAT)." *CA: a Cancer Journal for Clinicians*, 1991 Nov/Dec; 41(6):357-364.

⁶ Ontario Breast Cancer Information Exchange Project. "Guide to unconventional cancer therapies." 1st ed. Toronto: *Ontario Breast Cancer Information Exchange Project*, 1994:300-303.

⁷ Immune Augmentation Therapy Clinic. "Results." [Online]. Available WWW: <http://www.iatclinic.com/page5.html>.

⁸ Immune Augmentation Therapy Clinic. "Expenses." [Online]. Available WWW: <http://www.iatclinic.com/page7.html>.

Laetrile

What does Laetrile therapy involve? Laetrile, also known as amygdalin, Vitamin B₁₇, sarcocarpinase and nitriloside, is a natural substance found in the pits of some fruits and nuts. Laetrile is a compound that can release cyanide, a lethal molecule. The use of laetrile as a cancer therapy is not approved in the United States, but it continues to be manufactured and administered as an anticancer treatment, primarily in Mexico.¹ Importation of Laetrile into the United States is illegal. Treatment with Laetrile is commonly administered intravenously for two to three weeks. The treatment is followed up by oral maintenance doses.²

How is Laetrile thought to treat cancer? There are several theories by which Laetrile is claimed to work, two of which are explained below:

1. **Cyanide Release Theory**
Beta-glucosidase, an enzyme which is thought to exist in large quantities in cancerous tissue, causes the release of hydrogen cyanide from Laetrile. Cyanide stops tumor respiration and selectively kills the cancerous tissue.³
2. **Vitamin Deficiency Theory**
Cancer is the result of a vitamin deficiency and Laetrile is the missing "vitamin B₁₇."^{4,5}

What has been proven about the benefit of Laetrile? Scientific studies have been conducted for over twenty years and no evidence of any antitumor activity, in either animals or humans, has been found. Researchers have concluded that Laetrile is not effective as a treatment for cancer and is harmful in some cases.⁶

What is the potential risk or harm of Laetrile? While taking Laetrile, patients may experience nausea, vomiting, headache and dizziness.⁷ There are several reports in the medical literature in which Laetrile caused life-threatening toxicity and even death.⁸ Cyanide toxicity can cause progressive neuromuscular weakness and respiratory arrest.

How much does laetrile cost? Laetrile is usually given as part of a larger treatment program and can cost between \$2,000 and \$5,000 per week.⁹

For additional information:

BC Cancer Agency
600 West 10th Avenue
Vancouver, BC Canada V5Z 4E6
Telephone: (604) 877-6000
Web site: www.bccancer.bc.ca
Cancer Information Service
1-800-422-6237

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- ¹ CancerNet (2000). “Laetrile/Amygdalin (PDQ).” [Online]. Available WWW: <http://cancernet.nci.nih.gov/cam/laetrile.htm>.
- ² Ontario Breast Cancer Information Exchange Project. “Guide to unconventional cancer therapies.” 1st ed. Toronto: *Ontario Breast Cancer Information Exchange Project* 1994:281-284.
- ³ Levi, L et al. “Laetrile: a study of its physicochemical and biochemical properties.” *Canadian Medical Association Journal* 1965; 92:1057.
- ⁴ Martin, DS et al. “Ineffective cancer therapy: a guide for the layperson.” *Journal of Clinical Oncology* 1983; 1:154-163.
- ⁵ CancerNet (2000). “Laetrile/Amygdalin (PDQ).” [Online]. Available WWW: <http://cancernet.nci.nih.gov/cam/laetrile.htm>
- ⁶ National Cancer Institute (1999). “Cancer Facts: Laetrile”. Available WWW: http://cis.nci.nih.gov/fact/9_3.htm
- ⁷ Ontario Breast Cancer Information Exchange Project. “Guide to unconventional cancer therapies.” 1st ed. Toronto: *Ontario Breast Cancer Information Exchange Project* 1994:281-284.
- ⁸ BC Cancer Agency. “Unconventional Cancer Therapies: Laetrile/Amygdalin/Vitamin B₁₇/Sarcocarpinase/Nitroside.” [Online]. Available WWW: <http://www.bccancer.bc.ca/utcm/23.html>.
- ⁹ Ontario Breast Cancer Information Exchange Project. “Guide to unconventional cancer therapies.” 1st ed. Toronto: *Ontario Breast Cancer Information Exchange Project* 1994:281-284.

Light Therapy

What does light therapy involve? Light has been used as medicine for centuries by several parts of the world. In the 1980s, a group of physicians in the U.S. realized that people deprived of sunlight sometimes developed symptoms such as depression, lethargy, inability to concentrate and difficulty sleeping.¹ They began to treat patients with light therapy using light boxes to provide bright light for patients suffering from a variety of illnesses. There are several types of light therapy:^{2,3}

- UV light therapy - *uses different wavelengths of UV light (UV-A, -B, or -C) to "treat" autoimmune diseases*
- Colored light therapy - *blue, red and violet lights are used to treat sleep disorders, shoulder pain, diabetes, impotence and allergies*
- Photodynamic therapy - *combines the use of colored lights with injections of dye into suspected skin cancer tumors so as to kill the cancer cells*

How is light therapy thought to promote wellness and optimize overall health?

Researchers have hypothesized that people deprived of light have a disruption of their circadian rhythms, also called the body's inner 24-hour "dark-light cycle clock." Light is thought to influence health because it can affect physiologic functions of the body, such as timing of hormone production, sleep and body temperature. Exposure to sunlight can contribute to a consistent circadian rhythm and combat mild depression, leading to increased wellness and optimized health.

What has been proven about the benefit of light therapy? Light has proven use in medicine as a treatment for seasonal affective disorder (SAD), a type of depression also known as "winter depression" resulting from a lack of sunlight. Light is also used to treat psoriasis, newborn jaundice and vitamin D deficiency. The use of light therapy to treat cancer is still unproven.⁴

What is the potential risk or harm of light therapy? Light therapy is not recommended for patients with eye and skin sensitivity to sunlight. Patients currently taking medications should check with their physicians or pharmacists before beginning light therapy because a wide variety of drugs can increase sensitivity to sunlight.⁵ Also, overexposure to UV light contributes to premature aging of the skin and can increase one's risk of skin cancer.

How much does light therapy cost? Most people can take the treatments at home if they purchase the proper equipment, although it is possible to receive therapy in an office or clinic. Costs will vary with the practitioner.

For additional information:

College of Syntonic Optometry
1200 Robeson Street
Fall River, MA 02720
Telephone: (508) 673-1251

Society for Light Treatment and Biological Rhythms
842 Howard Avenue
New Haven, CT 06519
Web site: www.websciences.org/sltbr

¹ Yahoo! Incorporated (1999). "Yahoo Health: Light Therapy." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Light_Therapy/.

² American Cancer Society (1997). "Light Therapy." [Online]. Available WWW: http://www.cancer.org/alt_therapy/light.html.

³ Cassileth, Barrie R. *The Alternative Medicine Handbook*. New York, NY: W.W. Norton and Company, 1998; pg. 277.

⁴ Yahoo! Incorporated (1999). "Yahoo Health: Light Therapy." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Light_Therapy/.

⁵ Yahoo! Incorporated (1999). "Yahoo Health: Light Therapy." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Light_Therapy/.

Livingston-Wheeler Therapy

What does the Livingston-Wheeler therapy involve? Virginia Livingston-Wheeler, a trained physician, claimed she identified a microbe (*Progenitor cryptocides*) that causes cancer only when the immune system is inadequate. She then developed a vaccine she believed would help stimulate the patient's immune system to produce antibodies against *P. cryptocides* and control it. Livingston-Wheeler's treatment includes a vegetarian whole-foods diet, megavitamins and other nutritional supplements, digestive enzymes, vaccines, antibiotics, anti-parasite medication, enemas, psychosocial intervention, group support and training in relaxation and imagery.¹

How is the Livingston-Wheeler therapy thought to treat cancer? An autogenous (self) vaccine is made from each patient's individual strain of bacteria. The specimen is obtained from urine, blood or tumor tissue and is grown in culture, killed and processed into a vaccine. Livingston-Wheeler claimed the autogenous vaccine kills the production of *P. cryptocides*, and the other therapeutic aspects, such as diet and stress reduction, improves immune function.²

What has been proven about the benefit of the Livingston-Wheeler therapy? The University of Texas Center for Alternative Medicine (UTCAM) conducted an extensive human studies literature review of the Livingston-Wheeler therapy and found two studies applicable to cancer. The first study found no statistically significant increase in survival among patients using the Livingston-Wheeler therapy.³ In fact, quality of life was reported to be lower for the Livingston patients. The second study was performed by the Livingston-Wheeler herself.⁴ UTCAM found some discrepancies in her statistical reporting and does not feel her self-reported 82% success rate is accurate.⁵ No clinical trials have been done to determine efficacy of the Livingston-Wheeler therapy.

What is the potential risk or harm of the Livingston-Wheeler therapy? The autogenous vaccines have never been shown to be toxic.⁶ Side effects of the therapy have included malaise, aching, fever and tenderness at the vaccine injection site.

How much does the Livingston-Wheeler therapy cost? A ten-day program at the Livingston-Wheeler Clinic in San Diego, California, including all laboratory fees, costs between \$6,800 and \$7,400. Program maintenance is approximately \$400 to \$600 monthly.⁷

For additional information:

Livingston Foundation Medical Center
3232 Duke Street
San Diego, CA 92110
Telephone: (619) 224-3515
Web site: www.livingstonmedcentr.com

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/

¹ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Livingston-Wheeler." [Online]. Available WWW:
<http://www.sph.uth.tmc.edu/utcam/therapies/livingston.htm>.

² University of Texas Center for Alternative Medicine Research in Cancer (1999). "Livingston-Wheeler." [Online]. Available WWW:
<http://www.sph.uth.tmc.edu/utcam/therapies/livingston.htm>.

³ Cassileth, BR, Lusk EJ, Guerry D et al. "Survival and quality of life among patients receiving unproven as compared with conventional cancer therapy." *New England Journal of Medicine* 1991; 324:118-1185.

⁴ Livingston-Wheeler V, Addeo EG. "100 Random Case Histories." The Conquest of Cancer: Vaccines and Diet. New York, NY: Franklin Watts; 1984; pg. 15-38.

⁵ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Livingston-Wheeler." [Online]. Available WWW:
<http://www.sph.uth.tmc.edu/utcam/therapies/livingston.htm>.

⁶ CA (Anonymous). "Unproven methods of cancer management: Livingston-Wheeler therapy." *CA: a Cancer Journal for Clinicians* 1990 Mar/Apr; 40(2):103-108.

⁷ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Livingston-Wheeler." [Online]. Available WWW:
<http://www.sph.uth.tmc.edu/utcam/therapies/livingston.htm>.

Macrobiotics

What does macrobiotics therapy involve? Macrobiotics therapy is a combination of diet, spiritual and social philosophy and a way of healthful living. The macrobiotics philosophy is based on a traditional Chinese medicine concept, the yin-yang principle of balance throughout the universe. (For more information see traditional Chinese medicine). Although a relatively new therapy, macrobiotics teaches that it is necessary to maintain balance and harmony between qi, yin and yang. The diet, originally termed the "Zen macrobiotic diet," was very restrictive and has since been modified by other practitioners in the macrobiotic movement. The diet consists of 50-60% whole grains, 20-25% vegetables, 5-10% beans and sea vegetables and 5% soups. Some variations of the diet allow the occasional use of fish and some fruits.¹ Foods not allowed in the diet include coffee, dairy products, eggs, sugar, meats and processed foods. The macrobiotics diet also requires special methods of food preparation such as using only pots, pans and utensils made of certain materials.² There is not a single diet for everyone, but rather a diet "principle" that considers different climates, ages, sex, level of activity and changing personal needs.

How is macrobiotics thought to promote wellness and optimize overall health?

Traditional Chinese medicine believes that imbalances of yin and yang lead to illness. Therefore, macrobiotics attempts to rebalance yin and yang and regain health through diet and a change in lifestyle and life philosophy. The macrobiotics diet can lower fat and cholesterol and, like other fat-reducing diets, may help prevent some cancers that appear to be related to higher fat intake, such as colon cancer. This fat-free diet can also lower blood pressure and reduce the chance of heart disease. Other aspects of the macrobiotics therapy may promote a reduction in stress.³

What has been proven about the benefit of macrobiotics? According to the University of Texas Center for Alternative Medicine (UTCAM), peer-reviewed research concerning the ability of the macrobiotics diet to cure cancer is currently limited.⁴ After an extensive search, UTCAM found three human studies on macrobiotics applicable to cancer. None demonstrated beyond a reasonable doubt that macrobiotics therapy should be viewed as a curative therapy. Macrobiotics is a "lifestyle" approach that can help prevent cancer, promote wellness and optimize health.

What is the potential risk or harm of macrobiotics therapy? A nutrient, vitamin and calorie restrictive diet can be dangerous for frail cancer patients. The most serious effects occur when the diet is deficient in calories, vitamin D, vitamin B-12, protein and iron. Increased caloric needs to fight illness and recover from treatment may not be met with the macrobiotics diet, which is high in bulk and low in fat. Children on the macrobiotics diet tend to have growth and nutrient deficiencies.

How much does macrobiotics therapy cost? The cost of consuming a macrobiotics diet is probably comparable to consumption of a typical American diet when all factors are taken into consideration. Higher costs for macrobiotics include the initial setup of a macrobiotics kitchen and special foods. However, eating a macrobiotic diet can decrease costs because of the elimination of meat and poultry and the tendency to dine outside the home.⁵

For additional information:

Choices in Healing: Integrating the Best of Conventional and Complementary Approaches to Cancer by Michael Lerner. Cambridge, MA: MIT Press, 1998.

Recalled by Life by Anthony Sattilaro. New York, NY: Avon Books, 1982.

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/

¹ OncoLink, University of Pennsylvania Cancer Center (2000). "Macrobiotic Diet." [Online]. Available WWW: <http://www.oncolink.upenn.edu/support/tips/tip24.html>

² American Cancer Society (1999). "Macrobiotics." [Online]. Available WWW: http://www.cancer.org/alt_therapy/macro.html.

³ American Cancer Society (1999). "Macrobiotics." [Online]. Available WWW: http://www.cancer.org/alt_therapy/macro.html.

⁴ University of Texas Center for Alternative Medicine in Cancer Research (1999). "Macrobiotic." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/macrobiotic.htm>.

⁵ University of Texas Center for Alternative Medicine in Cancer Research (1999). "Macrobiotic." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/macrobiotic.htm>.

Massage Therapy

What does massage therapy involve? Massage therapists rhythmically rub and knead the body's soft tissues for therapeutic purposes. Several different types of massage have developed over time in different cultures. These include Swedish massage (most common in the U.S.), Oriental massage, Shiatsu and Thai massage. Massages usually occur in a warm, comfortable room and last about one hour.

How is massage therapy thought to promote wellness and optimize overall health? Massage promotes muscle relaxation, which in turn reduces stress. It is helpful not only in decreasing the feeling of being stressed, but also in treating problems exacerbated by muscle tension, such as headaches, backaches, stiffness and insomnia. As muscles are rubbed, blood vessels dilate, blood flow increases, lymph circulation is stimulated, oxygen supply increases and overall circulation throughout the body is improved.^{1,2} Patients fighting serious diseases, such as cancer, find massage promotes relaxation, improves quality of life and enhances well-being.

What has been proven about the benefit of massage therapy? According to the American Cancer Society, massage is "thought almost universally to be a beneficial therapy. It is helpful not only physically but emotionally as well, because it soothes the soul and the mind."³ Massage cannot cure cancer, but it has been shown in several studies to improve quality of life and well-being. There is some scientific evidence that massage enhances the immune system by increasing blood circulation. In addition, massage was shown to promote relaxation and alleviate pain and anxiety in hospitalized cancer patients.⁴

What is the potential risk or harm of massage therapy? Massage, especially deep tissue forms, should be avoided over areas of known tumors and at any time when bleeding or tissue damage would be a risk, such as following surgery, chemotherapy, or radiation therapy. Patients with circulatory ailments such as phlebitis or varicose veins should avoid massage.⁵ Massage should never be performed on bruises, areas of tissue damage, inflamed or infected sites and bone metastases.

How much does massage therapy cost? Cost will vary with the massage therapist. Massage is available in a therapist's private office, spas, health clubs and resorts. Many therapists will also travel to patients' homes.

For additional information:

American Massage Therapy Association

820 Davis Street, Suite 100

Evanston, IL 60201

Telephone: (847) 864-0123

Web site: www.amtamassage.org

Touch Research Institute

University of Miami School of Medicine

Coral Gables, FL 33124

Telephone: (305) 284-2211

Web site: www.miami.edu/touch-research/home.html.

¹ American Cancer Society (1997). "Massage Therapy." [Online]. Available WWW: http://www.cancer.org/alt_therapy/massage.html.

² Cassileth, Barrie R. *The Alternative Medicine Handbook*. New York, NY: W.W. Norton and Company, 1998; pg. 233.

³ American Cancer Society (1997). "Massage Therapy." [Online]. Available WWW: http://www.cancer.org/alt_therapy/massage.html.

⁴ Yahoo! Incorporated (1999). "Yahoo Health: Massage Therapy." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Massage_Therapy/.

⁵ Yahoo! Incorporated (1999). "Yahoo Health: Massage Therapy." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Massage_Therapy/.

Meditation

What does meditation involve? There are many forms of meditation, from spiritual to secular approaches, all which involve mental control. While meditation has its roots in Eastern religious traditions to correct imbalances of the mind, its health benefits are independent of spiritual aspects. Most types of meditation employ some form of concentration on breathing and a silent repetition of a word or prayer to release anxiety and extraneous stresses. It is recommended that individuals perform meditation once or twice a day for 10-20 minutes to reap the full benefits.¹

How is meditation thought to improve wellness and optimize overall health? The simplicity of most instructions and the flexibility to develop an individualized style make meditation available to almost anyone. The overall goal is to improve health in general and facilitate the healing of certain disorders by inducing mental tranquility and physical relaxation.² The reported benefits include reduction of stress, tension, anxiety, panic and high blood pressure and lessening chronic pain.³ In cancer patients, benefits include diminished pain, reduced stress hormone levels, improved immune function and improvement in mood.⁴ By calming the mind and relaxing the body, meditation may help cancer patients alleviate the harmful effects of tension and stress and change negative coping responses that may aggravate their condition.

What has been proven about the benefit of meditation? There is scientific evidence that the mind, in meditation, can effect physiological changes in the human body.⁵ Studies on biochemical effects of meditation have reported mixed results. Positive responses have included reduction in serum cortisol, blood pressure and pulse rate.⁶ According to a few studies, some of these physiologic changes may inhibit tumor growth or metastasis. Reported actions are increased survival of patients with various cancers, increased peace of mind, and inhibition of stress-induced immunosuppression.⁷ However, without conclusive evidence, meditation should not be used as a curative therapy but as one that reduces stress, promotes wellness and improves quality of life.

What is the potential risk or harm of meditation? There are very few negative effects reported with the use of meditation. Side effects, although uncommon, include negativity, disorientation, worsened interpersonal relationships and increased alienation from society.⁸ As such, patients with a disposition to mental illness should consult a physician before beginning a meditation program.

How much does meditation therapy cost? Many people take lessons in meditation that vary in cost, but it is possible to learn meditation techniques at home, using books and videos and/or audiotapes.

For additional information:

Insight Meditation Society

1230 Pleasant Street
Barre, MA 01005
Telephone: (508) 355-4378

Mind-Body Clinic

Beth Israel Deaconess Hospital
Harvard Medical School
185 Pilgrim Road
Cambridge, MA 02215
Telephone: (617) 632-9534

Stress Reduction Clinic

Jon Kabat-Zinn, Ph.D., Director of Stress Reduction Clinic
University of Massachusetts Medical Center
55 Lake Avenue North
Worcester, MA 01655
Telephone: (508) 856-2656

The Worldwide Online Meditation Center

P.O. Box 660431
Sacramento, CA 95866
<http://www.meditationcenter.com>

Creating Health: How to Wake Up the Body's Intelligence. Deepak Chopra. Houghton Mifflin Co, 1995.

The Art of Meditation. Joel S. Goldsmith. HarperCollins Publishers, 1990.

How to Meditate: A Guide to Self-Discovery. Lawrence Leshan. Bantam Books, 1984.

Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain and Illness and Wherever You Go, There You Are: Mindfulness Meditation in Everyday Life. Jon Kabat-Zinn. Hyperion Publishers, 1997, 1995.

¹ OncoLink, University of Pennsylvania Cancer Center (2000). "Meditation." [Online]. Available WWW: <http://www.oncolink.upenn.edu/support/tips/tip26.html>

² Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 134.

³ Yahoo! Incorporated (1999). "Yahoo! Health: Meditation." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Meditation/.

⁴ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 135.

⁵ American Cancer Society (1997). "Meditation." [Online]. Available WWW: http://www.cancer.org/alt_therapy/meditation.html.

⁶ Boik, John. Cancer and Natural Medicine: A Textbook of Basic Science and Clinical Research. Princeton, MN: Oregon Medical Press, 1996; pg.174.

⁷ Boik, John. Cancer and Natural Medicine: A Textbook of Basic Science and Clinical Research. Princeton, MN: Oregon Medical Press, 1996; pg.180.

⁸ Fugh-Berman, Adriane. Alternative Medicine: What Works. Baltimore, MD: Williams and Wilkens, 1997; pg. 167.

Melatonin

What does melatonin therapy involve? Melatonin is a hormone produced by the pineal gland in the brain. Melatonin levels fluctuate throughout the day and gradually increase at nighttime. This cycle ensures that most life forms are at rest during darkness.¹ Melatonin is administered in tablet form.

How is melatonin thought to promote wellness and optimize overall health? Melatonin has been proposed to improve sleep quality, assist the immune system in fighting infection, reduce the risk of heart disease, regulate biorhythms and impact longevity.² Melatonin is a powerful antioxidant and has been found in high concentrations in the nuclei of cells, where it may serve to protect DNA from damage and mutation that can lead to cancer.³

What has been proven about the benefit of melatonin? The University of Texas Center for Alternative Medicine conducted an extensive human studies literature review and found fifty studies applicable to cancer. Of those fifty, thirty-two studies evaluated disease response and survival when treated with melatonin in combination with chemotherapy, radiation and IL-2, an immune stimulator. Many of the studies reported increased survival times and a few others reported tumor shrinkage when patients were treated with melatonin.⁴ Twelve studies evaluated the effects of melatonin on the immune system. Results of these studies were mixed but it appears that melatonin, when administered in conjunction with IL-2, caused an increase of immune system cell numbers. The remaining studies investigated the effects of melatonin on low blood pressure caused by immune therapy and chemotherapy induced toxicity and body/muscle wasting. All studies generated some support for the benefits of melatonin.⁵ However, without conclusive evidence, melatonin should not be thought of as a curative therapy, but rather a supportive therapy that promotes wellness and optimizes health. It may help reduce side effects of treatment and symptoms of disease.

What is the potential risk or harm of melatonin? No adverse side effects or risks have been reported.

How much does melatonin cost? Melatonin can be purchased at health food stores and pharmacies. One hundred 1 mg tablets cost approximately \$10 to \$15.

For additional information:

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/

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- ¹ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Melatonin." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/melatonin.htm>.
- ² Reiter RJ, Robinson J. Your Body's Natural Wonder Drug Melatonin. 1995.
- ³ Reiter RJ, Robinson J. Your Body's Natural Wonder Drug Melatonin. 1995.
- ⁴ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Melatonin." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/melatonin.htm>.
- ⁵ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Melatonin." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/melatonin.htm>.

Mistletoe

What does mistletoe treatment involve? Mistletoe, a semi-parasitic plant, has been used for over 75 years to treat tumors and is one of the most widely used alternative cancer treatments in Europe.¹ Mistletoe extract is usually administered by subcutaneous injections in the morning hours, ideally near the site of disease, three to seven times a week. Treatment duration can be several months to years.

How is mistletoe thought to treat cancer? Mistletoe extracts are used to stimulate the immune system and kill cancer cells.² The active ingredients in mistletoe, viscotoxins and lectins, can kill cells by damaging cellular membranes, stopping protein synthesis and stimulating the immune system.³

What has been proven about the benefit of mistletoe? The major effects of mistletoe as determined in laboratory and animal studies include stimulation of the immune system, induction of programmed cell death (apoptosis) and protection from potential carcinogens.⁴ The University of Texas Center for Alternative Medicine reviewed thirty-two human studies using mistletoe to treat cancer. Only a few studies reported statistically significant positive results. The positive results included reduced tumor size, increased survival, recovery of blood counts and improved quality of life.⁵ Mistletoe is not approved for use in the United States.

What is the potential risk or harm of mistletoe? Pharmaceutical grade mistletoe extract has minimal side effects but allergic reactions have been reported. Symptoms included anaphylactic reactions, chills, fever, headache and irregular heart rate. Elevation in body temperature and wheal formation at the site of administration are considered signs of immune system stimulation and are part of the normal therapeutic process.⁶ Eating mistletoe is highly toxic, especially to infants and children. Patients on any type of monoamine oxidase (MAO) inhibitor antidepressants should not take mistletoe because of a risk of tyramine crisis. This product should only be used under the supervision of a health care provider.

How much does mistletoe treatment cost? Mistletoe can be obtained in Europe and less easily in the U.S. Treatments are available in Germany for \$160 (U.S.) per day. In the U.S., some patients may be eligible for enrollment in clinical trials.

For additional information:

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/

¹ Bussing A. "Mistletoe: a story with an open end." *Anti-Cancer Drugs (Suppl)*. 1997; 8:S1-S2.

² University of Texas Center for Alternative Medicine Research in Cancer (1999). "Mistletoe Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/therapies/mistletoe.htm>.

³ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Mistletoe." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/therapies/mistletoe.htm>.

⁴ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Mistletoe." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/therapies/mistletoe.htm>.

⁵ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Mistletoe." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/therapies/mistletoe.htm>.

⁶ Anonymous. "Viscum Album: Mistletoe." *PDR for Herbal Medicines*. Montvale, NJ: Medical Economics Company, Inc., 1998; pg. 1219-1222.

Modified Citrus Pectin (MCP)

What does modified citrus pectin therapy involve? Pectin is a carbohydrate found in fruit and is most concentrated in ripe citrus fruits. Pectin is used for commercial purposes in the manufacturing of foods, drugs and cosmetics. The pH and polysaccharide structure have been altered in modified citrus pectin, found in the peel and membranes of citrus fruits. Therapy involves ingestion of MCP, in capsule or powder form, three times a day.

How is modified citrus pectin thought to promote wellness and optimize overall health? MCP is thought to be useful in the prevention and treatment of metastatic cancer, not as a curative therapy of already established tumors. MCP molecules bind to receptors on cancerous cells, thereby preventing these cells from penetrating into nearby healthy tissue. Once this has occurred, the cancer cells circulate in the blood stream until they die or are eliminated.¹ By working to inhibit the spread of cancer, MCP keeps the body's immune system from becoming overwhelmed by an increasing number of cancer cells.

What has been proven about the benefit of modified citrus pectin? The University of Texas Center for Alternative Medicine (UTCAM) found no human studies on the use of MCP. In one study, MCP inhibited metastasis in rats injected with melanoma and human prostate cancer cells.² Animal studies have resulted in the discovery of the mechanisms by which MCP exerts its anticancer effects but these results have not been translated to humans yet. According to UTCAM, "because secondary metastatic cancers are often more threatening to patients than the original tumor, MCP has great potential."³ Further research is needed to understand its exact role and function.

What is the potential risk or harm of modified citrus pectin? Citrus pectin has been classified by the Food and Drug Administration (FDA) as "Generally Regarded As Safe" (GRAS),⁴ and side effects of MCP treatment are rare. Patients with allergies to citrus may experience stomach discomfort.

How much does modified citrus pectin cost? Modified citrus pectin can be purchased in powder or capsule form. Costs vary depending on the manufacturer.

For additional information:

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/

¹ University of Texas Center for Alternative Medicine Research in Cancer (1999). “Modified Citrus Pectin.” [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/citrus.htm>.

² Boik, John. Cancer and Natural Medicine. Princeton, MN: Oregon Medical Press, 1996. pg 39.

³ University of Texas Center for Alternative Medicine Research in Cancer (1999). “Modified Citrus Pectin.” [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/citrus.htm>.

⁴ University of Texas Center for Alternative Medicine Research in Cancer (1999). “Modified Citrus Pectin.” [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/citrus.htm>.

MTH-68

What does MTH-68 therapy involve? MTH-68 is a live strain of Newcastle disease virus developed as an immunotherapy agent by Laszlo Csatory, a Hungarian-American physician currently living in the US. MTH-68 is administered to patients by injections or nasal inhalation.

How is MTH-68 thought to treat cancer? MTH-68 is a nonpathogenic virus that is believed to interfere with cancer growth in humans. The virus is reported to enhance the immune system and selectively kill cancer cells.

What has been proven about the benefit of MTH-68? The University of Texas Center for Alternative Medicine conducted an extensive human studies literature review on MTH-68 and found eighteen studies applicable to cancer. Most of the studies reported some positive patient response to treatment, including tumor regression, increased survival and stable disease. A 1994 editorial in the Journal of the National Cancer Institute (JNCI) noted the “apparent ability [of the virus] to induce tumor lysis through different mechanisms.”¹

What is the potential risk or harm of MTH-68? Reported side effects have included mild flu-like symptoms, fever and delayed type hypersensitivity skin reactions (i.e. redness, rash, or irritation).² Live viruses have the potential to undergo genetic recombination and/or mutation. Excessive production of antibodies to MTH-68 may block its proposed benefits. Also, if the injected virus is ineffective, repeated administration may cause immune complex deposition in the kidneys.³

How much does MTH-68 therapy cost? MTH-68 is only available in Hungary. Because live virus cannot be shipped, only a 6 month supply can be carried on ice by patients on an airplane. Estimated costs are approximately \$900 per month.⁴

For additional information:

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/

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- ¹ Kenney S, Pagano J. "Viruses as oncolytic agents: a new age for therapeutic viruses?" *Journal of the National Cancer Institute*. 1994; 86:1185-86.
- ² University of Texas Center for Alternative Medicine Research in Cancer (1999). "MTH-68." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/mth68.htm>.
- ³ Sinkovics J, Horvath J. "New developments in the virus therapy of cancer: A historical review." *Intervirolgy*. 1993; 36:193-214.
- ⁴ University of Texas Center for Alternative Medicine Research in Cancer (1999). "MTH-68." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/mth68.htm>.

Music Therapy

What does music therapy involve? Music therapy has been used throughout history by healers in many cultures, including the Greeks, Egyptians, Native Americans and Indians. Music can have therapeutic value when patients sit and listen to music, improvise tunes, write songs, discuss lyrics, perform compositions and/or actively participate in its production.¹ It can be beneficial for patients of any age, ethnic or religious background, or stage of illness.

How is music therapy thought to promote wellness and optimize overall health?

Music has the ability to assist emotional and physical healing and enhance quality of life and well-being. Music therapy has been reported to reduce pain, anxiety and depression, improve mood, calm or sedate, induce sleep, counteract fear and alleviate physiological discomforts of illness.^{2,3}

What has been proven about the benefit of music therapy? It is accepted that music has the power to affect one's temperament and how one feels. However, a clear explanation of how music therapy acts as a healing force does not exist.⁴ Music therapy may act in similar methods as meditation by reducing blood pressure, breathing rates and stress and providing distraction from pain.⁵ According the American Cancer Society, music therapy has "firm scientific support for its ability to contribute substantially to the well-being of patients in many different clinical circumstances. It reduces symptoms, aids healing and rehabilitation and improves quality of life."⁶

What is the potential risk or harm of music therapy? Music therapy is a safe, noninvasive therapy with no known side effects.

How much does music therapy cost? Cost will vary as music therapy can be practiced individually, in groups, with a therapist, or by oneself. Music therapy can be used in a hospital, hospice, nursing home or home setting.

For additional information:

American Music Therapy Association
8455 Colesvilles Road, Suite 1000
Silver Spring, MD 20910
Telephone: (301) 589-3300
Web site: www.musictherapy.org

¹ Yahoo! Incorporated (1999). "Sound Therapy." [Online]. Available WWW:
http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Sound_Therapy/.

² American Cancer Society (1997). "Music Therapy." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/music.html.

³ Yahoo! Incorporated (1999). "Sound Therapy." [Online]. Available WWW:
http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Sound_Therapy/.

⁴ American Cancer Society (1997). "Music Therapy." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/music.html.

⁵ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 282.

⁶ American Cancer Society (1997). "Music Therapy." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/music.html.

Native American Healing

What does Native American healing involve? Native American healing combines religion, community ritual, spirituality and herbal medicine to treat illness. Because of their Eurasian ancestry, many of the beliefs of native Americans have their roots in ancient Indian (Ayurvedic) and Chinese medicine. Native American tribes share a common belief in the interconnectedness of people, the community, the environment and the spiritual world. Harmony must exist amongst them for good health to dominate a community.^{1,2} Native American healers believe that illness results from spiritual imbalances within the individual and the community. The community relies upon medicine men and women, or shamanic healers, who are thought to be able to contact the spiritual world to heal illness and fight disease.³ Native American tradition focuses on four elements of healing:⁴

1. symbolic ritual – *to communicate with the spiritual world and enlist its aid in healing*
2. shamanic healers – *offer prayers to appease spirits so that they will treat illness and restore health*
3. purification of the body – *to rid the body of impurities and restore a spiritually pure state*
4. use of herbs as medicine

How is native American healing thought to manage specific symptoms of cancer, side effects of conventional therapies and/or control pain? The heavy dependence on spiritual communication and meditation may reduce stress and anxiety, bring about peace of mind and produce a sense of wholeness among patients. Native American knowledge of herbs is extensive and many have value in reducing pain and treating a variety of ills, symptoms of disease and side effects of conventional treatment.⁵

What has been proven about the benefit of native American healing? Formal research of the healing ceremonies and traditions of Native Americans is almost nonexistent even though claims have been made regarding cures of a variety of ailments, including cancer.⁶ However, the community-based approach to health care may provide comfort to patients who enjoy the sense of sharing a common purpose and history with a large group of people. Other health benefits may be the result of the placebo response (see Appendix G). Although some aspects of Native American healing may improve comfort and reduce pain and stress for those with cancer, it should not be relied on as a cure for the disease.⁷

What is the potential risk or harm of native American healing? Special consideration should be given to certain purification rituals performed to “cleanse” the body. For

example, sweat lodges may cause patients to become dehydrated and an herbal tea called “Black Drink” induces vomiting.

How much does native American healing cost? Information on cost is unavailable.

For additional information:

Institute for Traditional Medicine
2017 SE Hawthorne Boulevard
Portland, Oregon 97214
Telephone: (503) 233-4907
Web site: www.itmonline.org

¹ American Cancer Society (1997). “Native American Healing.” [Online]. Available WWW: http://www.cancer.org/alt_therapy/native.html.

² Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 41.

³ American Cancer Society (1997). “Native American Healing.” [Online]. Available WWW: http://www.cancer.org/alt_therapy/native.html.

⁴ American Cancer Society (1997). “Native American Healing.” [Online]. Available WWW: http://www.cancer.org/alt_therapy/native.html.

⁵ American Cancer Society (1997). “Native American Healing.” [Online]. Available WWW: http://www.cancer.org/alt_therapy/native.html.

⁶ Aspen Reference Group. Holistic Health Promotion and Complementary Therapies: A Resource for Integrated Practice. Gaithersburg, MD: Aspen Publishers, Inc., 1998; pg. 1-5:11.

⁷ American Cancer Society (1997). “Native American Healing.” [Online]. Available WWW: http://www.cancer.org/alt_therapy/native.html.

Naturopathic Medicine

What does naturopathic medicine involve? Naturopathic medicine bases its treatments on natural methods. Although naturopaths typically diagnose illness using the same methods as conventional doctors, the two differ when it comes to treatment of the illness. Naturopaths do not use drugs, major surgery or cutting edge medical technology to treat disease. Instead, they rely on alternative treatment approaches that are geared to strengthen the body's own healing ability. Diet and nutritional supplements, homeopathic and herbal remedies, acupuncture, homeopathy, stress reducing techniques, counseling and massage are utilized.^{1,2,3} Naturopaths are trained to treat and support the whole patient, which includes lifestyle and environmental factors that influence general well-being. Naturopathic medicine has treatment plans for almost all conditions.⁴

How is naturopathic medicine thought to manage specific symptoms of cancer, side effects of conventional therapies and/or control pain? The overall goal of naturopathic medicine is to increase the body's natural healing power to fight disease. While the emphasis in naturopathic medicine is to uncover and treat the cause of disease, as opposed to just merely treating symptoms, many of the individual treatment modalities are thought to help relieve some symptoms of disease and side effects of treatment cancer patients might be experiencing. Naturopathy also emphasizes preventative medicine. Approaches such as a change in diet and lifestyle are used to promote wellness and optimize overall health are.⁵

What has been proven about the benefit of naturopathic medicine? Naturopathy employs several treatment modalities that vary in effectiveness. For example, acupuncture has been shown to decrease pain, but homeopathic herbal remedies and detoxifying enemas may be of little value. Because naturopathy uses many different techniques, it is necessary to examine the treatment modalities individually. Naturopathic treatments generally can be helpful in treating minor illnesses but should not be thought of as a curative treatment for serious illnesses such as cancer.^{6,7}

What is the potential risk or harm of naturopathic medicine? Naturopathic medicine adheres to the medical motto "first, do no harm."⁸ In general, naturopathic remedies are harmless and often contribute to a healthy lifestyle. However, some remedies, such as fasting, enemas and sweating can upset the body's electrolyte balance and may be harmful to weak patients. Additionally, some herbal therapies can be toxic and/or have negative interactions with other medications. Patients are thus encouraged to discuss their interest in and the appropriateness of naturopathic remedies with their physician.

How much does naturopathic medicine cost? Costs will vary depending on which treatment modality is used and whether or not insurance will reimburse practitioner fees.

For additional information:

The American Association of Naturopathic Physicians
601 Valley Street, Suite 105
Seattle, WA 98109
Telephone: (206) 298-0126
Web site: www.naturopathic.org

¹ Yahoo! Incorporated (1999). "Yahoo Health: Naturopathic Medicine." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Naturopathic_Medicine/.

² Aspen Reference Group. Holistic Health Promotion and Complementary Therapies: A Resource for Integrated Practice. Gaithersburg, MD: Aspen Publishers, Inc., 1998; pg. 1-5:11.

³ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 41.

⁴ American Cancer Society (1997). "Naturopathic Medicine." [Online]. Available WWW: http://www.cancer.org/alt_therapy/naturopathic.html.

⁵ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 50.

⁶ American Cancer Society (1997). "Naturopathic Medicine." [Online]. Available WWW: http://www.cancer.org/alt_therapy/naturopathic.html.

⁷ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 51.

⁸ Yahoo! Incorporated (1999). "Yahoo Health: Naturopathic Medicine." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Naturopathic_Medicine/.

Ozone Therapy

What does ozone therapy involve? Ozone (O₃) is a highly active form of oxygen. Most people are familiar with the ozone layer, a component of the upper atmosphere that plays an important role in absorbing certain forms of harmful radiation from the sun. Similar to hydrogen peroxide, another oxygen-rich compound, ozone has been advertised as a cancer remedy. Ozone is administered in five different ways: external application, intramuscular (IM) or subcutaneous (SC) injection, intra-arterial or intravenous injection, rectally or as “autochemotherapy.” External application involves passing a stream of ozone over open lesions or tumors inside a plastic hood. The IM or SC administration involves injections of twenty to fifty milliliters of an ozone/oxygen mixture and may be made into the immediate vicinity of a tumor. With the intra-arterial or IV injection, promoters claim that only unhealthy or diseased tissue is affected, and no side effects occur because bubbles in the blood dissolve readily. “Autochemotherapy” involves removal of blood from the patient. This blood is exposed to ozone and then returned to the patient.

How is ozone therapy thought to treat cancer? Proponents of ozone therapy believe that microorganisms, which thrive in low-oxygen environments, cause disease, including cancer.¹ It is believed that administration of ozone raises oxygen levels and leads to the destruction of the microorganisms.

What has been proven about the benefit of ozone therapy? There is no scientific evidence that treatment with ozone is either safe or results in any objective benefit in the treatment of human cancer. In addition, researcher now understand that the low oxygen environment surrounding tumor cells is due to the fact tissues surrounding the cancerous masses have fewer blood vessels and, therefore, receive less oxygen.²

What is the potential risk or harm of ozone therapy? Ozone produces highly reactive, oxygen-like free radicals and should be used with caution. Ingestion can result in severe poisoning. It can also be a skin irritant when used at high concentrations.

How much does ozone therapy cost? Information is unavailable.

For additional information:

BC Cancer Agency
600 West 10th Avenue
Vancouver, BC Canada V5Z 4E6
Telephone: (604) 877-6000
Web site: www.bccancer.bc.ca

Oxygen and Ozone Therapies
Web site: www.oxytherapy.com

¹ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 194.

² Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 195.

Pau d'Arco

What does pau d'arco therapy involve? Pau d'arco is a tree found in the rainforests of Central and South America. Its common names include lapacho, taheebo and trumpet tree. The inner bark of pau d'arco is used by native tribes to treat cancer, lupus, infectious diseases, wounds, backache, toothache and sexually transmitted diseases. Pau d'arco is available in health food stores as capsules, tablets, alcohol solutions, dried bark and tea. However, pau d'arco must be boiled for at least eight minutes to release the active ingredients, making a tea from the bark ineffective unless properly prepared.¹

How is pau d'arco thought to treat cancer? The medicinal value of pau d'arco is thought to reside in certain compounds, called naphthaquinones, in the inner bark. Proponents claim that naphthaquinones enhance the immune system, cleanse the body and stimulate the production of red blood cells, which can increase the amount of oxygen the blood can carry contributing to healing.²

What has been proven about the benefit of pau d'arco? Naphthaquinones, the active commons in pau d'arco bark, have shown potent antifungal properties in laboratory tests.³ These same compounds also have anticancer properties. Pau d'arco has killed lung cancer cells grown in the laboratory and reduced the rate of lung tumor growth in mice.⁴ Unfortunately, it must be taken in very toxic doses for any effects to occur.⁵ Because of the toxic effects, the National Cancer Institute did not seek approval to use pau d'arco as an anticancer drug and research has, for the most part, ceased. The American Cancer Society states that "until more evidence is available, pau d'arco should not be used as an alternative treatment for cancer."⁶

What is the potential risk or harm of pau d'arco? The whole bark has no known side effects. The unrefined bark is much safer than taking extracts of the active ingredients. High doses of naphthaquinones can cause uncontrolled bleeding, nausea and vomiting.

How much does pau d'arco cost? Costs will vary depending on the health food store where it is purchased. Because health food products are not regulated for quality and purity, the amount of pau d'arco in different products varies. Some may only contain trace amounts of the active ingredients.

For additional information:

Raintree Nutrition, Inc.
10609 Metric Blvd., Suite 101
Austin, Texas 78758
Telephone: (800) 780-5902
Web site: www.rain-tree.com

¹ Yahoo! Incorporated (1999). Yahoo Health: "Pau d'Arco." [Online]. Available WWW: http://health.yahoo.com/Alternative_Medicine/Herbal_Remedies_Tree/Herbal_Remedies/Pau_d_Arco/.

² American Cancer Society (1999). "Pau d'Arco." [Online]. Available WWW: http://www.cancer.org/alt_therapy/paudarco.html.

³ Yahoo! Incorporated (1999). Yahoo Health: "Pau d'Arco." [Online]. Available WWW: http://health.yahoo.com/Alternative_Medicine/Herbal_Remedies_Tree/Herbal_Remedies/Pau_d_Arco/.

⁴ American Cancer Society (1999). "Pau d'Arco." [Online]. Available WWW: http://www.cancer.org/alt_therapy/paudarco.html.

⁵ Tyler, Varro E. *Herbs of Choice: The Therapeutic Use of Phytomedicinals*. New York, NY: Pharmaceutical Products Press, 1994; pg. 180.

⁶ American Cancer Society (1999). "Pau d'Arco." [Online]. Available WWW: http://www.cancer.org/alt_therapy/paudarco.html.

PC-SPES

What does PC-SPES therapy involve? PC-SPES is a combination herbal preparation of 8 different substances developed by chemist Sophie Chen, Ph.D. and her colleagues, Allan Wang, M.D., and Hui Fu Wang, M.D. for the prevention or treatment of prostate disease.¹ It contains chrysanthemum, isatis, licorice, *Ganoderma lucidum*, *Panax-pseudo-ginseng*, *Rabdosia rubescens*, saw palmetto, and scutellaria.² PC-SPES is marketed as a nutritional supplement and is commercially available as an over-the-counter drug. The typical regimen consists of nine capsules a day although the correct dosage varies from individual to individual depending upon the stage of the illness.

How is PC-SPES thought to treat cancer? According to the developers of this product, this herbal combination provides a range of therapeutic effects: stimulation of the immune system; antitumor, antiviral, and anti-inflammatory activity; and prevention of BPH (benign prostate hyperplasia). Some proponents also claim that PC-SPES provides antioxidant action, neutralizes blood toxins, increases red and white blood cell counts, and suppresses cancer-causing genes.³ PC-SPES appears to work in part like any other hormonal therapy for prostate cancer although other mechanisms of action have been reported. PC-SPES activity includes the ability to lower the levels of prostate specific antigen (PSA), a protein secreted by cancerous prostate cells, and testosterone (the male hormone and primary fuel for prostate cancer).⁴

What has been proven about the benefit of PC-SPES? It is clear PC-SPES does have important effects on the prostate gland that are not totally understood to date. Findings from clinical trials with PC-SPES and subsequent research suggest that the herbal combination can cause both the male sex hormone, testosterone, and prostate specific antigen (PSA) levels to decrease significantly in patients.^{5,6} Although current evidence suggests that PC-SPES provides some benefit for the treatment of prostate cancer, clinical studies are currently ongoing and more information is needed before PC-SPES can be recommended as a treatment for prostate cancer.

What is known about the potential risk or harm of PC-SPES? PC-SPES-related complications include loss of libido, breast swelling, and breast tenderness. These same side effects are found when males are treated with medical doses of estrogen and of testosterone-blocking therapies. Other possible side effects include frequent loose bowel movements or diarrhea, leg or muscle cramps, change in urine flow, fatigue, blood clots in legs or lungs and allergic

reactions such as face swelling, tongue swelling, difficulty swallowing and/or breathing.⁷

How much does PC-SPES cost? . The retail cost of PC-SPES through the manufacturer, Botanic Lab, is \$108 per bottle of 60 capsules. Because of possible side effects, it is strongly recommended that PC-SPES be taken under the supervision of a physician because of the possible side effects. Additionally, because many treatment decisions are based on the PSA blood test and PC-SPES can cause a decrease in its level, physicians must know when their patients are taking this therapy.⁸

For additional information:

University of California, San Francisco

Questions about PC-SPES can be addressed to UCSF Pam Schneider, RN, at (415) 885-7331. UCSF Web site: http://cc.ucsf.edu/clinical/uro_pc-spes.html

A comprehensive information packet on PC-SPES can be obtained by contacting The Education Center for Prostate Cancer Patients (ECPCP) Web site: <http://ecpcp.org/>

Information is also available from BOTANICLAB, a commercial producer of PC-SPES. You can contact BOTANICLAB by mail at 2900-B Saturn St., Brea, CA 92827; by phone at (714) 524-5533 or via the web at <http://www.botaniclab.com>.

¹American Cancer Society (1999). "PC-SPES." [Online]. Available WWW: http://www.cancer.org/alt_therapy/pcspes.html

²University of San Francisco Cancer Center Medical Care and Information (1999). "PC-SPES." [Online] Available WWW: http://cc.ucsf.edu/clinical/uro_pc-spes.html

³American Cancer Society (1999). "PC-SPES." [Online]. Available WWW: http://www.cancer.org/alt_therapy/pcspes.html

⁴The Education Center for Prostate Cancer Patients (1999). "Herbal Therapy...a formula of eight herbs that can save or lengthen your life." [Online] Available: <http://www.ecpcp.org/pcspes.html>

⁵University of San Francisco Cancer Center Medical Care and Information (1999). "PC-SPES." [Online] Available WWW: http://cc.ucsf.edu/clinical/uro_pc-spes.html

⁶DiPaola, R.S., Zhang, H., Lambert, G., et. al. Clinical and Biologic Activity of an Estrongenetic Herbal Combination (PC-SPES) in Prostate Cancer. *New England Journal of Medicine*. 1998; 339:785-791.

⁷American Cancer Society (1999). "PC-SPES." [Online]. Available WWW: http://www.cancer.org/alt_therapy/pcspes.html

⁸University of San Francisco Cancer Center Medical Care and Information (1999). "PC-SPES." [Online] Available WWW: http://cc.ucsf.edu/clinical/uro_pc-spes.html

Prayer and Spirituality

What does prayer and spirituality involve? Religion has been a part of communities since the beginning of recorded history. Prayer and spirituality is thought to have served as a means of seeking explanations of unknowns and assistance to alter nature, health and disease. Today, religion still plays a vital role in every culture of the world. While different religions, including but not limited to Christianity, Judaism, Hinduism, Islam and Buddhism, hold different beliefs about a supreme being, some form of prayer is a universal act to communicate with one's own God or other supreme being.¹ Because one's supreme being is usually believed to be capable of creating life and restoring health, people pray for help, understanding, strength and wisdom in dealing with life's difficulties.² Prayer can be done in silence or spoken aloud and can occur in a group setting or individually. Prayer may be for one's self, known as supplication, or for others, called intercession.

How are prayer and spirituality thought to promote wellness and optimize overall health? Prayer and spirituality help patients retain purpose, meaning and hope in the face of pain, suffering and uncertainty. Many people find religion provides meaning, fellowship and comfort to their lives and believe that the spiritual component of healing is necessary for positive results to occur. Most people view the benefits of prayers specifically requesting healing to result from an interaction between faith and divine intervention. Some scientists have developed hypotheses about how intercessory prayer may work. These hypotheses generally advocate a nonlocal view of the mind -- a view in which consciousness is not localized or confined to specific points in space or time.³

What has been proven about the benefit of prayer and spirituality? There have been several studies on the effects of intercessory prayer in healing disease. Some have shown no benefit while others have shown benefit in at least one of the physical variable being measured.^{4,5} Many would argue that the effect of prayer as a healing therapy requires a unique interaction between the faith of the individual and divine intervention in the form of a miracle, therefore, it cannot be 'proven' using scientific method.

Numerous studies have looked at the health effects associated with religious practice. A number of studies have shown positive health outcomes including less depression and longer life in those who practice their religion or view themselves as part of an organized religious group. It is difficult in these studies to separate the benefits of religious practice with those of social support.

What is the potential risk or harm of prayer and spirituality? There is no intrinsic risk or harm of prayer and spirituality. There are, however, potential risks associated with prayer or spirituality for healing- spiritual, physical, and financial. From a spiritual perspective, serious illness can result in a spiritual crisis, as the person questions why this

is happening to them. Patients may feel guilty, unworthy, or angry if prayers do not “cure” their illnesses. From a physical perspective, patients could be harmed from refusing or delaying effective conventional treatments if others encourage them to not use conventional treatments as evidence of their faith, rather than encouraging a perspective that God can work through a variety of channels, including conventional medicine. From a financial perspective, patients should be wary of persons who require financial compensation to pray for them, as there is a risk that the individual may be a charlatan, preying on vulnerable people for his/her own personal profit.

How much does prayer and spirituality cost? Prayer costs nothing more than the patient’s time. Many medical institutions and health care practitioners include prayer and spirituality as part of their practices. Hospitals and communities have chapels, which are free to all who enter, and contacts with ministers and rabbis to serve patients’ spiritual needs.⁶

For additional information:

Healing Words by Larry Dossey. San Francisco, CA: Harper Collins Publishers, 1993.

¹ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 309.

² American Cancer Society (1997). “Prayer and Spirituality.” [Online]. Available WWW: http://www.cancer.org/alt_therapy/prayer.html.

³ Dossey, Larry. Prayer and Medical Science: A Commentary on the Prayer Study by Harris et al and a Response to Critics (Commentary) *Archives of Internal Medicine* 2000, 160(12): 1735-1738.

⁴ Astin, John; Harkness, Elaine; Ernst, Edzard. The Efficacy of 'Distant Healing': A Systematic Review of Randomized Trials. *Annals of Internal Medicine* (2000), 132(11): 903-910.

⁵ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 313.

⁶ American Cancer Society (1997). “Prayer and Spirituality.” [Online]. Available WWW: http://www.cancer.org/alt_therapy/prayer.html.

Qigong

What does qigong involve? Qigong is a physical and mental exercise that involves combinations of concentrated, controlled breathing with simple, repetitive movements. Translated, qigong means energy work and is based on traditional Chinese beliefs in *qi*, (or *chi*, pronounced “*chee*”), the life force. Qigong is closely related to tai chi but requires less physical stamina. There are two types of qigong, internal and external, both of which involve efforts to manipulate *qi*. Internal qigong requires intense mental concentration, little or no movement and is practiced alone to strengthen one's own *qi*. External qigong requires the participation of a qigong master who has been trained to transmit his/her own life force energy to influence the health of the patient.¹

How is qigong thought to promote wellness and optimize overall health? The traditional Chinese purpose of qigong is to rebalance the inner *qi*, or life force, to calm the mind and revitalize the body and all of its systems.² In Chinese medicine, the restoration of *qi* is believed to improve blood flow, circulation and the effectiveness of the lymph and nervous systems, lower blood pressure and heart rate, and alleviate stress.

What has been proven about the benefit of qigong? Exactly how and what in the mind and body qigong helps is largely a matter of speculation. It is important to note that there is no evidence that qigong exercises can increase resistance to illness or cure existing disease, nor is there scientific proof that qigong masters can heal patients suffering from serious illness.³ However, it has been shown that qigong can promote sounder sleep, increase relaxation, reduce anxiety and stress and improve quality of life. Studies have also shown that regularly practiced qigong improves balance, reduces the number of falls and enhances well-being in elderly patients.⁴ Qigong can easily be used in conjunction with mainstream medicine and is consistent with many health maintenance programs designed to improve fitness, promote wellness and optimize health.

What is the potential risk or harm of qigong? Qigong exercises do not challenge strength or stamina and can even be used by wheel chair bound patients and patients with frail bones. These exercises tend to be safe and effective for most everyone.

How much does qigong cost? Patients can teach themselves internal qigong with various training manuals available in bookstores and libraries. Professional instruction also exists, and classes are often offered at local YMCAs, fitness centers and hospitals.

For additional information:

Health Action
243 Pebble Beach
Santa Barbara, CA 93117
Telephone: (805) 682-3230

Qigong Institute
561 Berkeley Avenue
Menlo Park, CA 94025
Telephone: (650) 323-1221
Web site: www.healthy.net/qigonginstitute

¹ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 145.

² Lerner, Micheal. Choices in Healing. Cambridge, Massachusetts: The MIT Press; 1994, pg. 583.

³ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 146.

⁴ American Cancer Society (1997). "Qigong." [Online]. Available WWW: http://www.cancer.org/alt_therapy/qigong.html.

Reflexology

What does reflexology involve? Reflexology uses the foot as a map of the body and treats various ailments by applying pressure to specific areas of the feet thought to correspond to each organ system.¹ Reflexology has its roots in traditional Chinese medicine and believes in the life force, or *qi*, that runs in channels throughout the body. By applying pressure to specific areas of the foot, reflexologists believe they can influence a patient's *qi*.² (Please see traditional Chinese medicine).

How is reflexology thought to promote wellness and optimize overall health? Reflexology proponents believe that by applying pressure to specific points on the foot, energy flow is increased to the target organ. Health problems are thought to be treated by stimulating internal organs, boosting circulation, and restoring bodily functions to normal. Reflexologists claim they can reduce stress and tension, improve circulation and increase wellness.³ They do not claim to cure illness.

What has been proven about the benefit of reflexology? There is no scientific evidence that reflexology works. Some proponents claim that reflexology causes the release of endorphins, natural painkillers, by the brain. Others believe that pressure causes uric acid crystals that accumulate in the feet to dissipate.⁴ Neither explanation has been proven. It is most probable that pressure on the feet feels like and produces the same beneficial effects of massage, which include promotion of relaxation and enhanced well-being.

What is the potential risk or harm of reflexology? Reflexology is a gentle, non-invasive therapy with no known side effects.

How much does reflexology cost? Costs will vary with the practitioner. Reflexology is usually performed by a trained reflexologist but can be learned in books, and then self-administered, to reduce costs. There is no medication or special equipment needed.

For additional information:

International Institute of Reflexology
5650 First Avenue North
P.O. Box 12642
St. Petersburg, FL 33733-2642
Telephone: (727) 343-4811
Web site: www.reflexology-usa.net/

¹ American Cancer Society (1997). "Reflexology." [Online]. Available WWW: http://www.cancer.org/alt_therapy/reflexology.html.

² American Cancer Society (1997). "Reflexology." [Online]. Available WWW: http://www.cancer.org/alt_therapy/reflexology.html.

³ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 238.

⁴ American Cancer Society (1997). "Reflexology." [Online]. Available WWW: http://www.cancer.org/alt_therapy/reflexology.html.

Reiki therapy

What does Reiki therapy involve? Reiki is a natural method of healing that focuses on balancing the energy of the body. Reiki is the Japanese word for “universal life force energy.” It is an ancient approach in which the practitioner is a kind of healer in the sense that he or she serves as a conduit for healing energy coming from the universe. The practice is based on the teachings of Mikao Usui: a Japanese scholar and spiritual teacher. Usui believed that when connected with a healing energy one could heal themselves and others.¹ Reiki is spiritual not religious, in nature.² It is practiced by people of nearly all religions, including many priests and nuns.

Reiki treatments typically last about one hour. To begin the session, the practitioner will have the client lie down on a massage table or get comfortable in a chair or couch. The practitioner will begin channeling energy by gently placing his/her hands in a sequence of locations on or near the body and letting the energy flow. Individuals may experience the energy as a blanket of relaxation, as a warm glow, or as a tingling sensation. Some people find themselves drifting into sleep.³ To achieve optimum benefit from Reiki, it is recommended that individuals have a series of three treatments.

How is Reiki therapy thought to promote wellness and optimize overall health? Proponents believe that disease is related to subtle energy imbalances, often disseminated by the mind, which can manifest in the physical tissues of the body. Reiki is thus used to bring the energy patterns back to a state of harmony and balance, thereby maintaining or restoring one’s sense of wellness.⁴ Reiki practitioners also believe the therapy awakens the body’s innate potential for healing. As a holistic tool, it is therefore used to direct the harmonizing life energy to increase energy and vitality; reduce stress; promote relaxation; balance emotions; work with other treatment options for optimum outcomes; promote the health process on all levels.⁵ People who experience Reiki report feelings of relaxation, peace and well-being.⁶

What has been proven about the benefit of Reiki therapy?

Although Reiki is increasingly being used to complement conventional medical treatment for patients with a wide range of conditions, only limited research has been conducted on the effectiveness of Reiki. There is a small body of literature available; however, the majority of articles are case-oriented and anecdotal. To date, there remains a lack of research, knowledge, and understanding of this healing art.⁷

What is known about the potential risk or harm of Reiki therapy?

Reiki is a gentle, non-invasive therapy with no known side effects.

How much does Reiki therapy cost? Costs will vary from practitioner to practitioner. Reiki can be performed by a trained practitioner or self-administered. Individuals who receive initial training (i.e. complete a Reiki Level I class) will have the ability to give themselves a treatment anytime they want or need it.

For additional information:

Reiki Council

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

The Reiki Healing Connection

<http://www.reikienergy.com>

The RN Reiki Connection

<http://hometown.aol.com/KarunaRN>

The Reiki Network

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

The Reiki Alliance

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

¹Ameling, A, Potter, P., Reiki: Caring for Self, Caring for Others. *Innovations in Breast Cancer Care*. 2000; 5:44-48.

²Reiki Council (1999). "What is Reiki?" [Online]. Available WWW:

<http://www.reikicouncil.com>

³Collinge, William: *The American Holistic Health Association Complete Guide to Alternative Medicine*. New York, NY:Warner Books Inc.; 1996.

⁴Reiki Council (1999). "What is Reiki?" [Online]. Available WWW:

<http://www.reikicouncil.com>

⁵Center for Integrative Medicine at the George Washington University Medical Center. "Reiki".

[Online].. Available <http://www.gwumc.edu/mfa/cim/treatments/reiki.htm>

⁶Reiki Council (1999). "What is Reiki?" [Online]. Available WWW:

<http://www.reikicouncil.com>

⁷Reiki Council (1999). "What is Reiki?" [Online]. Available WWW:

<http://www.reikicouncil.com>

Revici Method

What does the Revici method involve? Emanuel Revici, M.D., a Romanian immigrant who practiced medicine in New York, theorized that tumors are either anabolic and sterol based or catabolic and fatty acid based (both sterols and fatty acids are types of lipids). Based on his beliefs of tumor physiology, Revici developed a cancer treatment with individually-guided, lipid-based chemotherapy using lipid and lipid-based substances, selenium compound sterols, alcohols, female hormones, amines, nicotinic acid derivatives, metals and halogens.¹ The Revici method uses sterols to treat catabolic, or fatty acid based, tumors and fatty acids to treat anabolic, or sterol based, tumors. Specially formulated substances unique to each patient are given orally or by injection

How is the Revici method thought to treat cancer? Revici believed that cancer is associated with an imbalance of the normal distribution of lipids, namely sterols and fatty acids, in the body. He thought cancer could be controlled if the imbalance is detected and corrected by administration of medication.

What has been proven about the benefit of the Revici method? The University of Texas Center for Alternative Medicine (UTCAM) conducted an extensive human studies literature review on the Revici method and found five studies applicable to cancer. UTCAM did not find any case histories that had been subjected to critical review or any controlled clinical trials to evaluate the safety and efficacy of Revici's treatment. The American Cancer Society has labeled the Revici method an unproven method of cancer treatment and urges patients to use other therapeutic methods.²

What is the potential risk or harm of the Revici method? Selenium compounds can generally be toxic, but Revici claims to use a form of selenium that is nontoxic to patients. Revici also noted that inflammation may occur around the area of the malignancy. No other adverse effects have been reported in the medical literature.³

How much does the Revici method cost? Consultation and treatment cost approximately \$500. Repeat visits cost \$95. Insurance may provide some reimbursement.

For additional information:

The Revici Life Science Centre Inc
(Kenneth Korins, M.D.)

200 West 57th St, Suite 1205
New York, NY 10019
Telephone: 212 246 5122

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/

¹ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Revisi Summary." [Online]. Available WWW: <http://sph.uth.tmc.edu/utcam/summary/revici.htm>.

² Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998. pg. 165.

³ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Revisi Summary." [Online]. Available WWW: <http://sph.uth.tmc.edu/utcam/summary/revici.htm>.

Rolfing

What does Rolfing involve? Rolfing is a specific type of massage which differs significantly from other forms of body work that focus on reducing tension in tight muscles. Instead, Rolfing emphasizes deep pressure on the tissue, called fascia, which covers muscles, internal organs and ligaments. The goal of Rolfing, which can be painful, is to align body sections so that they are in balance with each other and with gravity.¹ Rolfers, the practitioners of the therapy, press the fascia with their fingers, knuckles, elbows and knees to loosen it and release its tight hold on muscle and bone. Patients are also encouraged to perform a series of exercises to help their bodies move more efficiently.²

How is Rolfing thought to promote wellness and optimize overall health? Dr. Rolf, the creator of Rolfing, believes that over time the body's fascia becomes tightly attached to muscles and bones, making it difficult for the body to move smoothly and with a full range of motion. By releasing the fascia's hold, Rolfing is thought to help patients move more smoothly, increase support for bones throughout the body, increase energy and improve posture, stamina and emotional health. Proponents of Rolfing report that the therapy helps patients feel better and improves their quality of life.

What has been proven about the benefit of Rolfing? There is no scientific evidence that fascia hardens and stiffens with time, interfering with the body's ability to move with little effort and energy. There are a few clinical studies that report an improvement in range of motion, greater physical strength, less stress and enhanced nervous system response.³ Also, several patient testimonials state that a course in Rolfing made them feel better.⁴ Rolfing may release tension and stress that can lead to improved performance of the immune system and heightened resistance to disease.

What is the potential risk or harm of Rolfing? Treatments can be painful. Rolfing should be avoided over areas of known tumors and at any time when bleeding or tissue damage would be a risk, such as following surgery, chemotherapy, or radiation therapy. Patients with circulatory ailments such as phlebitis or varicose veins and those with rheumatoid arthritis and other inflammatory conditions should avoid Rolfing.⁵

How much does Rolfing cost? A course in Rolfing involves ten weekly sessions. Costs will vary with the practitioner.

For additional information:

Rolf Institute for Structural Integration
205 Canyon Boulevard
Boulder, CO 80302
Telephone: (800) 503-8875
Web site: www.rolf.org

¹ American Cancer Society (1997). "Rolfing." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/rolfing.html.

² Cassileth, Barrie R. *The Alternative Medicine Handbook*. New York, NY: W.W. Norton and Company, 1998; pg. 240.

³ Yahoo! Incorporated (1999). "Yahoo Health: Rolfing." [Online]. Available WWW:
http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Rolfing/.

⁴ American Cancer Society (1997). "Rolfing." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/rolfing.html.

⁵ Yahoo! Incorporated (1999). "Yahoo Health: Massage Therapy." [Online]. Available WWW:
http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Massage_Therapy/.

Saw Palmetto

What does saw palmetto therapy involve? Saw palmetto is a herbal remedy made from the berries of a low growing palm native to the southeastern United States. The berries, which are harvested, dried and ground for preparation as a tea or in a capsule, have long been used by Native Americans to treat problems of the urinary and genital systems.¹ Saw palmetto is often prescribed for the treatment of benign prostatic hyperplasia (BPH), a non-malignant enlargement of the prostate, or as an anti-inflammatory.² Saw palmetto berries do not appear to reduce the size of an enlarged prostate. Instead, they relieve the symptoms associated with BPH such as frequent urination and urine retention without causing impotence.

How is saw palmetto thought to manage specific symptoms of cancer, side effects of conventional therapies and/or control pain? Saw palmetto is used to alleviate the symptoms associated with an enlarged prostate, either benign or malignant. Saw palmetto reduces inflammation, swelling and the absorption of the male hormones testosterone and dihydrotestosterone (DHT) in prostate tissue. These results act to relieve bladder obstruction and improve urinary flow.³

What has been proven about the benefit of saw palmetto? The University of Texas Center for Alternative Medicine conducted an extensive human studies literature review of saw palmetto and found ten studies applicable to cancer. Several studies reported a significant improvement of symptoms of BPH compared to controls.⁴ The American Cancer Society agrees that saw palmetto may be useful in relieving symptoms of BPH after reviewing an overview of eighteen scientific studies on saw palmetto published in the Journal of the American Medical Association.⁵ It is important to understand that BPH is not a malignant condition. There is no available evidence that saw palmetto is of value in the treatment of prostate cancer. Saw palmetto should be used to alleviate symptoms of disease, not as a curative therapy.

What is the potential risk or harm associated with saw palmetto? Side effects are not common at the recommended dosage levels, but headache, nausea, vomiting, upset stomach, dizziness, constipation or diarrhea, insomnia, tiredness and heart pain have been reported. Saw palmetto may lower PSA levels, which could affect medical decision-making. Patients should tell their providers if they are taking this herb.

How much does saw palmetto cost? Cost will vary with pharmacies. Capsules begin at \$10 for 90.

For additional information:

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/

¹ American Cancer Society (1998). "Saw Palmetto." [Online]. Available WWW: http://www.cancer.org/alt_therapy/saw_palmetto.html.

² University of Texas Center for Alternative Medicine Research in Cancer (1999). "Saw Palmetto Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/sawpalmetto.htm>.

³ Yahoo! Incorporated (1999). "Yahoo Health: Saw Palmetto." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Herbal_Remedies_Tree/Herbal_Remedies/Saw_Palm_etto.

⁴ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Saw Palmetto." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/sawpalmetto.htm>.

⁵ American Cancer Society (1998). "Saw Palmetto." [Online]. Available WWW: http://www.cancer.org/alt_therapy/saw_palmetto.html.

Selenium

What does selenium therapy involve? Selenium is an essential trace mineral that is thought to be a powerful antioxidant, protecting tissues from the damaging effects of oxygen free radicals.¹ The daily recommended intake of selenium is 50 to 140 micrograms, taken by yeast tablets, maltcakes or other supplements.²

How is selenium thought to promote wellness and optimize overall health? Selenium may play a role in the prevention of cancer by binding with certain enzymes (proteins in the body which help to carry out reactions) to inhibit destruction caused by free radicals and by protecting the membrane of cells.³

What has been proven about the benefit of selenium? Epidemiological studies have suggested that selenium consumption is inversely correlated with breast, lung, oral and esophageal cancers, namely the higher the intake, the lower the cancer risk.⁴ The University of Texas Center for Alternative Medicine (UTCAM) conducted an extensive human studies literature review of selenium and found sixteen studies applicable to cancer. After analyzing the various studies, UTCAM concluded that selenium might play a role in reducing the risk of cancer.⁵ Selenium may be ingested for its health promoting effects but should not be thought of as a curative therapy.

What is the potential risk or harm associated with selenium? Side effects are rare at low doses of selenium but do include vomiting and diarrhea. At high doses, selenium is extremely toxic. Symptoms of selenium overdose include severe irritation of the respiratory system, rhinitis, swelling of the lungs, pneumonia and metallic taste in the mouth.⁶

How much does selenium cost? Selenium supplements can be purchased at health food stores and pharmacies. One hundred capsules cost approximately \$100. Selenium may also be included in multivitamin/mineral supplements.

For additional information:

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/

¹ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Selenium Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/selenium.htm>.

² University of Texas Center for Alternative Medicine Research in Cancer (1999). "Selenium Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/selenium.htm>.

³ Chen J, Clark LC. "Proposed supplemental dosages of selenium for a phase I trial based on dietary and supplemental selenium intakes and episodes of chronic selenosis." *Journal of the American College of Toxicology*. 1986; 5:71-78.

⁴ Clark LC, Combs GF Jr, Turnbull BW et al. "Effects of selenium supplementation for cancer prevention in patients with carcinoma of the skin. A randomized controlled trial." Nutritional Prevention of Cancer Study Group. *JAMA*. 1996; 276:1957-1963.

⁵ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Selenium." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/selenium.htm>.

⁶ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Selenium Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/selenium.htm>.

St. John's Wort

What does St. John's Wort therapy involve? St. John's wort (*Hypericum perforatum*) is a long-living, wild-growing herb that has been used for centuries to treat mental disorders as well as nerve pain. In recent years, St. John's wort has become an extremely popular form of alternative therapy for mild to moderate depression; it is also used to treat anxiety, seasonal affective disorder, and sleep disorders.¹ The major components of interest in St. John's wort are hypericin and pseudohypericin. Therapy involves taking a recommended dosage of the extract as an antidepressant three times daily.²

How is St. John's wort thought to manage specific symptoms of cancer, side effects of conventional therapies and/or control pain?

Changes in the levels of brain chemicals (neurotransmitters) that regulate mood are thought to cause depression. One of the main neurotransmitters responsible for mood is serotonin. Inside the brain, chemicals called enzymes break down molecules of serotonin. Low levels of serotonin in the body are associated with depression. One theory is that the hypericin and other components in St. John's wort work by blocking the activity of specific enzymes, thus keeping the supply of serotonin high. It also may be that hypericin boosts the ability of nerves to carry signals through the brain.³

What has been proven about the benefit of St. John's Wort?

Scientific studies have demonstrated antibacterial and wound-healing activity; others suggest that the herb may be helpful in the treatment of AIDS and other viral infections.⁴ In recent years, a number of studies have looked at the question of whether St. John's wort is a safe and effective treatment for depression. The review of clinical trials to date has lead researchers to conclude that standardized extracts of the herb have antidepressive effects in cases of *mild to moderate* depression.⁵ There is no data about the long-term effects and optimum safe dosage of the extract; its effectiveness in treating severe depression; or how well it compares with newer antidepressants. More research is also needed to compare different extracts, as there is a wide range of potency and purity in the extracts of St. John's wort available.

What is known about the potential risk or harm of St. John's Wort?

Research is currently underway to determine if St. John's wort has fewer and less severe side effects than antidepressant drugs. Some users of St. John's wort have complained of a dry mouth, dizziness, gastrointestinal symptoms, increased sensitivity to sunlight and fatigue.⁶

St. John's wort should not be mixed with other standard antidepressants because serious side effects may result. The herbal supplement has also been found to interfere with other prescription drugs such as Crixivan, cyclosporine, various immunosuppressant drugs and other medications that work through the same pathway including birth control pills, cholesterol-lowering medications, cancer medications, seizure drugs, and blood thinners.⁷ To avoid potentially serious complications and negative herb-drug interactions, it is important that patients check with their health care provider (s) before taking St. John's wort and inform them about all medications they are taking.

For additional information:

For more information about depression, contact the National Institute of Mental Health toll-free at 1-800-421-4211.

For more information about St. John's wort, contact the American Botanical Council at (512)926-4900, the Herb Research Foundation at (303)449-2265 and/or visit the National Center of Complementary and Alternative Medicine's Web site <http://nccam.nih.gov>

For more information about St. John's wort and negative drug interactions, visit the Food and Drug Administration (FDA) Center for Drug Evaluation and Research's Web site <http://www.fda.gov/cder/drug/advisory/stjwort.htm>; or call the FDA Center for Food Safety and Applied Nutrition at (201)800-332-4010.

¹National Institutes of Health National Center for Complementary and Alternative Medicine (NCCAM). "St. John's wort." [Online]. Available WWW:

<http://nccam.nih.gov/nccam/fcp/factsheets/stjohnswort/stjohnswort.htm>

²Murray, Michael T. *The Healing Power of Herbs*. Rocklin, CA: Prima Publishing, 1995; pgs. 296-297.

³American Cancer Society (1999). "St. John's wort." [Online]. Available WWW:

http://www.cancer.org/alt_therapy/stjohn.html

⁴Murray, Michael T. *The Healing Power of Herbs*. Rocklin, CA: Prima Publishing, 1995; pgs. 296-297.

⁵National Institutes of Health National Center for Complementary and Alternative Medicine (NCCAM). "St. John's wort." [Online]. Available WWW:

<http://nccam.nih.gov/nccam/fcp/factsheets/stjohnswort/stjohnswort.htm>

⁶American Cancer Society (1999). "St. John's wort." [Online]. Available WWW:

http://www.cancer.org/alt_therapy/stjohn.html

⁷National Institutes of Health National Center for Complementary and Alternative Medicine (NCCAM). "St. John's wort." [Online]. Available WWW:

<http://nccam.nih.gov/nccam/fcp/factsheets/stjohnswort/stjohnswort.htm>

Tai Chi

What does tai chi therapy involve? Tai chi is an ancient Chinese martial art based on the philosophy of Taoism. Similar to the principles of traditional Chinese medicine, Taoism believes in the existence of the vital life force, termed *qi* (or *chi*, pronounced “*chee*”), and the opposing world forces, yin and yang. Tai chi exercises are designed to balance yin and yang and promote the unobstructed flow of *qi*. (For more information see traditional Chinese medicine). Its movements are gentle and well suited for those who are not physically strong, healthy or flexible. Deliberate movements are combined with meditation and controlled breathing.

How is tai chi thought to promote wellness and optimize overall health? Tai chi exercises relax both the body and mind. Chinese medicine practitioners believe that tai chi exercises balance *qi*, which is essential to wellness and good health.¹ Mainstream physicians believe tai chi promotes wellness through the benefits of exercise, bringing about relaxation and reducing stress. Tai chi is thought to offer a variety of other "quality of life" benefits such as improved concentration, an increased sense of well-being, greater energy, improved posture and better circulation.² The health benefits of tai chi will not persist if the exercises are stopped. Tai chi should best be regarded as a lifelong preventative strategy to improve and maintain health.³

What has been proven about the benefit of tai chi? Sixteen studies have shown the positive effects of tai chi, which include improved posture, balance, muscle mass, strength, decreased blood pressure and increased stamina, muscle mass and flexibility.⁴ Additionally, people who practice tai chi report they feel younger, are more agile, have better balance and enjoy a more tranquil attitude. The American Cancer Society reports the tai chi promotes longevity and good health and may be used in relieving tension, stress, muscle wasting and fatigue associated with cancer.

What is the potential risk or harm of tai chi? There are no known side effects of tai chi. These exercises are safe and effective for most everyone.

How much does tai chi cost? To learn the different exercises, patients should attend a class with a tai chi instructor. Costs will vary depending on area and class size. No special equipment is necessary.

For additional information:

American Association of Oriental Medicine
433 Front Street
Catasauqua, PA 18032
Telephone: (610) 266-1433
Web site: www.aaom.org

¹ American Cancer Society (1997). "Tai Chi." [Online]. Available WWW:

http://www.cancer.org/alt_therapy/taichi.html.

² Yahoo! Incorporated (1999). "Yahoo Health: Tai Chi." [Online]. Available WWW:

http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapy/Tai_Chi/.

³ Yahoo! Incorporated (1999). "Yahoo Health: Tai Chi." [Online]. Available WWW:

http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapy/Tai_Chi/.

⁴ American Cancer Society (1997). "Tai Chi." [Online]. Available WWW:

http://www.cancer.org/alt_therapy/taichi.html.

Therapeutic Touch

What does therapeutic touch involve? Therapeutic touch is based on the idea that a life force, or vital energy, within the body is essential to good health. Therapeutic touch, a popular therapy in the U.S., manipulates this life force so as to remove blockages in the patient's vital energy. Most commonly practiced by nurses, therapeutic touch involves the sweeping of hands down the patient's body to smooth energy fields and eliminate blockages. Sessions typically last about thirty minutes and consist of four parts: centering, assessment, unruffling and energy transfer.¹ Despite what the name implies, therapeutic touch does not call for actually touching the patient's body.

How is therapeutic touch thought to promote wellness and optimize overall health? Proponents believe that therapeutic touch removes blockages and stagnant, harmful energy in the patient's energy fields. The absence of free flowing energy or the presence of harmful energy is believed to cause pain, illness and disease. The practitioner is thought to serve as a channel of life energy by transferring his/her own excess and healthy energy to the patient.² Patients have reported they feel more relaxed, less stressed and have lessened pain after therapeutic touch. The American Cancer Society reports that the "simple presence of a person who is interested in [the patient's] well-being promotes relaxation and lowers anxiety."³ This can help a patient feel better, promote wellness and improve health. Supporters also report therapeutic touch can alter enzyme activity, increase hemoglobin levels, reduce fever and speed the healing of wounds.⁴

What has been proven about the benefits of therapeutic touch? The existence of a life force has never been proven through scientific studies, but it is certainly possible that therapeutic touch works through a placebo effect (see Appendix G). Whatever the explanation is behind the benefit of therapeutic touch, a number of studies have documented genuine improvements in patients following therapeutic touch.⁵ In addition, there are many patient testimonials that describe positive results using therapeutic touch. Therapeutic touch should not be expected to cure cancer, but it can be used in relieving anxiety and stress cancer patients experience.

What is the potential risk or harm of therapeutic touch? There are no medical conditions that preclude patients from the use of therapeutic touch.⁶ It is a safe, non-toxic therapeutic alternative.

How much does therapeutic touch cost? Costs vary with the practitioner. Several hospitals offer therapeutic touch at no charge to their patients.

For additional information:

Nurse Healers Professional Associates International
11250-8 Roger Bacon Drive, Suite 8
Reston, VA 20190
Telephone: (703) 234-4149
Web site: www.therapeutic-touch.org

¹ American Cancer Society (1997). "Therapeutic Touch." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/touch.html.

² American Cancer Society (1997). "Therapeutic Touch." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/touch.html.

³ American Cancer Society (1997). "Therapeutic Touch." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/touch.html.

⁴ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 319.

⁵ Yahoo! Incorporated (1999). "Therapeutic Touch." [Online]. Available WWW:
http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Therapeutic_Touch/.

⁶ Yahoo! Incorporated (1999). "Therapeutic Touch." [Online]. Available WWW:
http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Therapeutic_Touch/.

Traditional Chinese Medicine

What does traditional Chinese medicine involve? Traditional Chinese medicine is a complete medical system that has been in use for thousands of years. It consists of methods to prevent as well as treat illness.¹ The goal of traditional Chinese medicine is to achieve an overall balance within the individual. Qi (pronounced “chee”), the vital energy or life force that flows within a fixed network of twelve invisible pathways or meridians in the body, is the most important concept of Chinese medicine. Wellness is achieved when opposite and complementary forces, called yin (feminine - cool, moist, nutritive, quiet) and yang (masculine - warm, dry, energetic, active), are in balance and promote the unobstructed flow of qi. An imbalance of qi, yin and yang are believed to result in sickness. All treatments aim to balance a person's qi. Several methods are used to promote, maintain and restore qi, including herbal remedies for nourishment, acupuncture, moxibustion (heat therapy), diet, massage, meditation and exercises such as qigong and tai chi.²

How is Chinese medicine thought to manage specific symptoms of cancer, side effects of conventional therapies and/or control pain? The individual components of Chinese medicine target different symptoms of disease and side effects of treatment. For example, acupuncture helps to alleviate pain, nausea and vomiting. Qigong and tai chi can improve balance and prevent muscle wasting. Ginseng, an herb used in Chinese medicine, is thought to help the body adapt to environmental and psychological stressors, increase overall strength and endurance and promote health and well-being.³ Massage and meditation can reduce anxiety, increase feelings of relaxation and improve quality of life.

What has been proven about the benefit of traditional Chinese medicine? The University of Texas Center for Alternative Medicine conducted an extensive human studies literature review of traditional Chinese medicine and found seventy-four human studies applicable to cancer. In these studies, traditional Chinese medicine was generally given in conjunction with conventional therapy and compared to patients receiving conventional therapy alone. Statistically significant outcomes in these studies including increased survival rates, enhanced immune response, reduction in side effects from chemotherapy and radiotherapy, improved recovery from surgery, alleviation of pain and improved quality of life.⁴ For more specific information, please refer to individual fact sheets for each treatment modality.

What is the potential risk or harm of Chinese medicine? Side effects will vary depending on the treatment used. Please see the fact sheets for each treatment modality.

How much does Chinese medicine cost? Cost will vary depending on the treatment used. Please see the fact sheets for each treatment modality.

For additional information:

American Association of Oriental Medicine
433 Front Street
Catasauqua, PA 18032
Telephone: (610) 266-1433
Web site: www.aaom.org

University of Texas Center for Alternative Medicine Research in Cancer
University of Texas, Health Science Center
P.O. Box 20186, #434
Houston, TX 77225
Web site: www.sph.uth.tmc.edu/utcam/

¹ American Cancer Society (1997). "Chinese Medicine (Traditional)." [Online]. Available WWW: http://www.cancer.org/alt_therapy/chinese.html.

¹ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Traditional Chinese Medicine Summary." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/summary/tcm.htm>.

¹ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Traditional Chinese Medicine." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/tcm.htm>.

¹ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Traditional Chinese Medicine." [Online]. Available WWW: <http://www.sph.uth.tmc.edu/utcam/therapies/tcm.htm>.

¹ American Cancer Society (1997). "Chinese Medicine (Traditional)." [Online]. Available WWW: http://www.cancer.org/alt_therapy/chinese.html.

² University of Texas Center for Alternative Medicine Research in Cancer (1999). "Traditional Chinese Medicine Summary." [Online]. Available WWW:

<http://www.sph.uth.tmc.edu/utcam/summary/tcm.htm>.

³ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Traditional Chinese Medicine." [Online]. Available WWW:

<http://www.sph.uth.tmc.edu/utcam/therapies/tcm.htm>.

⁴ University of Texas Center for Alternative Medicine Research in Cancer (1999). "Traditional Chinese Medicine." [Online]. Available WWW:

<http://www.sph.uth.tmc.edu/utcam/therapies/tcm.htm>.

Vegetarianism

What does vegetarianism involve? Vegetarianism is the adoption of a diet that consists mostly of plant products. However, vegetarians differ in the extremes to which they eat only plant products. Generally, vegetarians fall into the following major categories:¹

- Vegans - *eat no meat, dairy or fish products at all*
- Lactovegetarians - *eat dairy products but not eggs, meat or fish*
- Ovolactovegetarians - *eat eggs and dairy products but not meat or fish*
- Part-time vegetarians - *eat white meat and fish but not red meat*

While some choose to follow a vegetarian diet because of religious and ethical beliefs, most people choose vegetarianism because of its health-promoting aspects.

How is vegetarianism thought to promote wellness and optimize overall health?

There are many health benefits associated with a diet high in fiber and low in fat. While following a vegetarian diet is not thought to cure cancer, it may offer protection against developing certain types of cancer. The traditional American diet includes large amounts of meat, poultry, dairy products and fast foods that are typically high in fat, sodium and calories. By eliminating animal products from the diet, saturated fat and cholesterol are reduced or eliminated. Fat derived from plant products is typically unsaturated which is considered an adequate and healthier substitute.²

What has been proven about the benefit of vegetarianism? For many years, the US Government has urged citizens to reduce consumption of animal fat because excessive fat is known to contribute to poor health in several ways, including an increased risk for some cancers.³ Scientific data has shown that vegetarian diets reduce the risk of obesity, constipation, coronary artery disease, hypertension, type II diabetes, gallstones and several types of cancer including cancer of the breast and colon.^{4,5} As research progresses, scientists are continuing to find components called "phytochemicals" in plant products that protect good health and help prevent cancer. Some include:^{6,7}

- Sulforaphane - *found in broccoli; neutralizes enzymes that may trigger cancer*
- Glucobrassicin - *found in cruciferous vegetables (cabbage, broccoli, cauliflower, brussel sprouts, swiss chard, bok choy and kale); helps the body form indoles, compounds that may help prevent breast and other cancers*
- Beta-carotene - *found in orange and dark green vegetables; an antioxidant that reduces the risk of cancer and hardening of the arteries*
- Lycopene – *found in tomatoes and to a lesser extent in pink grapefruit and watermelon; an antioxidant that appears to decrease the risk of certain cancers*
- Phytate and protease inhibitors - *found in beans; play a role in cancer prevention*
- Ellagic acid – *found in strawberries and grapes; neutralizes the carcinogens that otherwise attack the cell's DNA and initiate abnormal cell growth*

- Allicin - *found in garlic and onions; may help prevent cancer*
- Isoflavones – *found in soy products; may act in several ways to discourage the initiation and progression of cancer; weak estrogen-like activity*

What is the potential risk or harm of vegetarianism? The American Dietetic Association reports that vegetarian diets can be both healthy and nutritionally complete.⁸ However, if a vegetarian limits his/her selection of foods, the risk of nutritional deficiencies increases. The most common deficiencies associated with vegetarianism are vitamin B₁₂, vitamin D and calcium. Most dietitians recommend that strict vegetarians supplement their diets with a daily multivitamin. Vegetarians must also be sure to include adequate amounts of protein, which can be found in beans, nuts, whole-grains and soy products. Switching to a vegetarian diet quickly can result in intestinal problems due to the rapid increase in dietary fiber. According to the American Cancer Society, cancer patients should discuss plans to become a vegetarian with a trained nutritionist.⁹

How much does becoming a vegetarian cost? Plant foods tend to be less expensive than animal foods. While some patients seek professional consultation when planning vegetarian diets, others develop vegetarian meal plans on their own. In addition to dietitians, holistic health centers, health food stores and the Internet can provide information on becoming a vegetarian and how to plan balanced and nutritional meals.

For additional information:

Everyday Cooking with Dr. Dean Ornish: 150 Easy, Low-Fat, High-Flavor Recipes by Dean Ornish. Harper Collins Publishing, 1997.

The Vegetarian Resource Group
 P.O. Box 1463
 Baltimore, MD 21203
 Telephone: (410) 366-8343
 Web site: www.VRG.org

¹ Yahoo! Incorporated (1999). "Yahoo Health: Vegetarianism." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Vegetarianism/.

² American Cancer Society (1998). "Vegetarianism." [Online]. Available WWW: http://www.cancer.org/alt_therapy/vege.html.

³ American Cancer Society (1998). "Vegetarianism." [Online]. Available WWW: http://www.cancer.org/alt_therapy/vege.html.

⁴ American Cancer Society (1998). "Vegetarianism." [Online]. Available WWW: http://www.cancer.org/alt_therapy/vege.html.

⁵ Yahoo! Incorporated (1999). "Yahoo Health: Vegetarianism." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Vegetarianism/.

⁶ Yahoo! Incorporated (1999). "Yahoo Health: Vegetarianism." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Vegetarianism/.

⁷ Somer, E. The Essential Guide to Vitamins and Minerals. New York, NY: HarperCollins, 1995; pg.81.

⁸ Yahoo! Incorporated (1999). "Yahoo Health: Vegetarianism." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Vegetarianism/.

⁹ American Cancer Society (1998). "Vegetarianism." [Online]. Available WWW: http://www.cancer.org/alt_therapy/vege.html.

Yoga

What does yoga involve? There are many types and schools of yoga, each with a different route by which a higher state of awareness may be reached. Yoga exercises, specifically *hatha yoga*, were developed in India and are an ancient practice intended to unify the body and mind. Yoga is usually performed in group classes and includes three dimensions: breathing exercises, body postures and meditation. By assuming a series of asanas (positions), all the muscle groups in the body can be stretched. Through controlled breathing and meditation, yoga postures seek to enhance *prana* (life force) that resides in the body and bring balance between the body and the mind.¹

How is yoga thought to improve wellness and optimize overall health? Yoga is intended to unite the mind, body and spirit to reach the highest possible levels of consciousness.² Yoga has been defined as a system of personal development and when practiced regularly, yoga can promote relaxation, cultivate fitness, reduce stress, enhance well-being and improve quality of life for cancer patients.

What has been proven about the benefit of yoga? While yoga is not a cure for cancer, it has many positive benefits for cancer patients. Research has shown that yoga, practiced regularly, can lower blood pressure, reduce stress, and improve blood pressure, concentration, sleep and digestion. Yoga has also shown to be effective in relieving the pain and anxiety associated with cancer and other chronic diseases as well as improve immune system function. Based on this body of evidence, yoga has been incorporated into complementary treatment regimens for many types of illnesses.^{3,4}

What is the potential risk or harm of yoga? The nature of some of the poses may be taxing to individuals with particular health problems. Therefore, as with starting any exercise program, people under medical care should consult their physician to be sure yoga is appropriate.

How much does therapy cost? Costs will vary with yoga instructors.

For additional information:

American Yoga Association
P.O. Box 19986
Sarasota, FL 34276
Telephone: (941) 927-4977
Web site: <http://members.aol.com/amyogaassn/index.htm>

¹Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 248.

² American Cancer Society (1997). "Yoga." [Online]. Available WWW:
http://www.cancer.org/alt_therapy/yoga.html.

³ Yahoo! Incorporated (1999). "Yahoo! Health: Yoga." [Online]. Available WWW:
http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Yoga.

⁴Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W.W. Norton and Company, 1998; pg. 250.

Appendix A: Major Domains Of Complementary And Alternative Medicine

National Center For Complementary And Alternative Medicine

Complementary and alternative healthcare and medical practices (CAM) are those healthcare and medical practices that are not currently an integral part of conventional medicine. The list of practices that are considered CAM changes continually as CAM practices and therapies that are proven safe and effective become accepted as "mainstream" healthcare practices. Today, CAM practices may be grouped within five major domains: (1) alternative medical systems, (2) mind-body interventions, (3) biologically-based treatments, (4) manipulative and body-based methods, and (5) energy therapies.¹ The individual systems and treatments comprising these categories are too numerous to list in this document. Thus, only limited examples are provided within each.

Alternative Medical Systems

Alternative medical systems involve complete systems of theory and practice that have evolved independent of and often prior to the conventional biomedical approach. Many are traditional systems of medicine that are practiced by individual cultures throughout the world, including a number of venerable Asian approaches.

Traditional oriental medicine emphasizes the proper balance or disturbances of qi (pronounced chi), or vital energy, in health and disease, respectively. Traditional oriental medicine consists of a group of techniques and methods, including acupuncture, herbal medicine, oriental massage, and qi gong (a form of energy therapy described more fully below). Acupuncture involves stimulating specific anatomic points in the body for therapeutic purposes, usually by puncturing the skin with a needle.

Ayurveda is India's traditional system of medicine. Ayurvedic medicine (meaning "science of life") is a comprehensive system of medicine that places equal emphasis on body, mind, and spirit, and strives to restore the innate harmony of the individual. Some of the primary Ayurvedic treatments include diet, exercise, meditation, herbs, massage, exposure to sunlight, and controlled breathing.

Other traditional medical systems have been developed by Native American, Aboriginal, African, Middle-Eastern, Tibetan, Central and South American cultures.

Homeopathy and naturopathy are also examples of complete alternative medical systems. **Homeopathy** is an unconventional Western system that is based on the principle that "like cures like," i.e., that the same substance that in large doses produces the symptoms of an illness, in very minute doses cures it. Homeopathic physicians believe that the more dilute the remedy, the greater its potency. Therefore, homeopaths use small doses of specially prepared plant extracts and minerals to stimulate the body's defense mechanisms and healing processes in order to treat illness.

Naturopathy views disease as a manifestation of alterations in the processes by which the body naturally heals itself and emphasizes health restoration rather than disease treatment. Naturopathic physicians employ an array of healing practices, including diet and clinical nutrition; homeopathy; acupuncture; herbal medicine; hydrotherapy (the use of water in a range of temperatures and methods of applications); spinal and soft-tissue manipulation; physical therapies involving electric currents, ultrasound, and light therapy; therapeutic counseling; and pharmacology.

Mind-Body Interventions

Mind-body interventions employ a variety of techniques designed to facilitate the mind's capacity to affect bodily function and symptoms. Only a subset of mind-body interventions are considered CAM. Many that have a well-documented theoretical basis, for example, patient education and cognitive-behavioral approaches are now considered "mainstream." On the other hand, **meditation, certain uses of hypnosis, dance, music, and art therapy, and prayer and mental healing** are categorized as complementary and alternative.

Biologically-based Treatments

This category of CAM includes natural and biologically-based practices, interventions, and products, many of which overlap with conventional medicine's use of dietary supplements. Included are **herbal, special dietary, orthomolecular, and individual biological therapies.**

Herbal therapies employ individual or mixtures of herbs for therapeutic value. An herb is a plant or plant part that produces and contains chemical substances that act upon the body. Special diet therapies, such as those proposed by Drs. Atkins, Ornish, Pritikin, and Weil, are believed to prevent and or control illness as well as promote health. Orthomolecular therapies aim to treat disease with varying concentrations of chemicals, such as, magnesium, melatonin, and mega-doses of vitamins. Biological therapies include, for example, the use of laetrile and shark cartilage to treat cancer and bee pollen to treat autoimmune and inflammatory diseases.

Manipulative and Body-based Methods

This category includes methods that are based on manipulation and/or movement of the body. For example, **chiropractors** focus on the relationship between structure (primarily the spine) and function, and how that relationship affects the preservation and restoration of health, using manipulative therapy as an integral treatment tool. Some **osteopaths**, who place particular emphasis on the musculoskeletal system, believing that all of the body's systems work together and that disturbances in one system may have an impact upon function elsewhere in the body, practice osteopathic manipulation. Massage therapists manipulate the soft tissues of the body to normalize those tissues.

Energy Therapies

Energy therapies focus either on energy fields originating within the body (biofields) or those from other sources (electromagnetic fields).

Biofield therapies are intended to affect the energy fields, whose existence is not yet experimentally proven, that surround and penetrate the human body. Some forms of energy therapy manipulate biofields by applying pressure and/or manipulating the body by placing the hands in, or through, these fields. Examples include Qi gong, Reiki and Therapeutic Touch. **Qi gong** is a component of traditional oriental medicine that combines movement, meditation, and regulation of breathing to enhance the flow of vital energy (qi) in the body, to improve blood circulation, and to enhance immune function. **Reiki**, the Japanese word representing Universal Life Energy, is based on the belief that by channeling spiritual energy through the practitioner the spirit is healed, and it in turn heals the physical body. **Therapeutic Touch** is derived from the ancient technique of "laying-on of hands" and is based on the premise that it is the healing force of the therapist that affects the patient's recovery and that healing is promoted when the body's energies are in balance. By passing their hands over the patient, these healers identify energy imbalances.

Bioelectromagnetic-based therapies involve the unconventional use of electromagnetic fields, such as pulsed fields, magnetic fields, or alternating current or direct current fields, to, for example, treat asthma or cancer, or manage pain and migraine headaches.

¹ Major Domains of Complementary and Alternative Medicine. Information for Consumers and Patients. NIH National Center for Complementary and Alternative Medicine
<http://nccam.nih.gov/nccam/fcp/classify/>

Appendix B: Professional Degrees And Titles Of Alternative Practioners

A.P.P.	Associate Polarity Practitioner
A.T.R.	Art Therapist, Registered
A.T.R.-B.C.	Board Certified Art Therapist
B.M.	Bachelor of Medicine
B.M.T.	Bachelor of Medical Technology
B.N.	Bachelor of Nursing
B.S.N.	Bachelor of Science in Nursing
C.A.R.	Certified Advanced Rolfer
C.A.	Certified Acupuncturist
C.C.H.	Certificate in Classical Homeopathy
C.Ht.	Certified Hypnotherapist
C.I.S.W.	Certified Independent Social Worker
C.M.A.	Certified Medical Assistant
C.M.P.	Certified Massage Practitioner
C.N.C.	Certified Nutrition Consultant
C.N.M.	Certified Nurse Midwife
C.R.	Certified Rolfer or Certified Reflexologist
C.T.P.	Certified Trager bodywork Practitioner
D.C.	Doctor of Chiropractic
D.Div.	Doctor of Divinity
D.D.S.	Doctor of Dental Surgery
D.H.A.N.P.	Diplomate of Homeopathic Academy of Naturopathic Physicians
D.Ht.	Doctor of Homeotherapeutics
D.I.B.A.K.	Diplomate of the International Board of Applied Kinesiology
Dipl.Ac.	Diplomate of Acupuncture
Dipl.C.H.	Diplomate of Chinese Herbology
D.M.D.	Doctor of Dental Medicine
D.N.B.H.E.	Diplomate of the National Board of Homeopathic Examiners
D.O.	Doctor of Osteopathy
D.O.M.	Doctor of Oriental Medicine
D.P.E.	Doctor of Physical Education
D.P.M.	Doctor of Podiatric Medicine
D.Sc.	Doctor of Sciences
D.S.W.	Doctor of Social Welfare
D.Th.	Doctor of Theology
D.T.	Dietetic Technician
D.V.M.	Doctor of Veterinary Medicine
F.I.C.C.	Fellow of the International College of Chiropractors
F.N.A.A.O.M.	Fellow of the National Academy of Acupuncture and Oriental Medicine
G.C.F.P.	Guild-Certified Feldenkrais Practitioner
L.Ac.	Licensed Acupuncturist
L.C.S.W.	Licensed Clinical Social Worker

L.H.P.	Licensed Homeopathic Physician
L.M.P.	Licensed Massage Practitioner
L.M.T.	Licensed Massage Therapist
M.Ac.	Master of Acupuncture
M.B.	Bachelor of Medicine
M.D.	Doctor of Medicine
M.D.(H.)	Doctor of Homeopathic Medicine
M.Div.	Master of Divinity
M.N.I.M.H.	Master of the National Institutes of Medical Herbalists (British)
M.H.	Master Herbalist
M.P.H.	Master of Public Health
M.S.N.	Master of Science in Nursing
M.S.P.H.	Master of Science in Public Health
M.S.W.	Master of Social Work
N.C.C.A.	National Commission for the Certification of Acupuncturists
N.C.T.M.B.	National Certification in Therapeutic Massage and Bodywork
N.D.	Doctor of Naturology (British); Doctor of Naturopathy (U.S.)
O.M.D.	Oriental Medical Doctor
P.A.	Physician's Assistant
Ph.D.	Doctor of Philosophy
P.T.	Physical Therapist
R.D.	Registered Dietitian
R.N.	Registered Nurse
R.Ph.	Registered Pharmacist
R.P.P.	Registered Polarity Practitioner

Appendix C: Education, Training, Licensing And Accreditation of Health Care Practitioners

Finding a quality health care practitioner can be a confusing and lengthy process. We hope the following information will help you research the background, qualifications and competence of potential health care providers whether a “mainstream” physician or CAM practitioner.

Obtaining an informed referral from a reliable source is often a good place to start. One of the best referral sources is a professional in a related field.¹ For instance, chiropractors often know the best acupuncturists in the local area, and vice versa. Appropriate state licensing is another way to verify that the practitioner you select is competent in his/her field. Contacting a state or local regulatory agency with authority over the type(s) of practitioners you seek treatment from can provide you with helpful information.

The practice of CAM is not usually as regulated as the practice of conventional medicine. However, licensing, accreditation and regulatory laws are increasingly being implemented. For some specialties, licensing requirements are determined at the state level. In others, the individual county or city government determines the level of education and training necessary for licensure. Local and state medical boards, health regulatory boards and consumer affairs departments can provide information about a specific practitioner's license, education, accreditation and any complaints lodged against the practitioner.

Most types of complementary and alternative practices also have national organizations that are familiar with legislation, state licensing, certification and/or registration laws. Usually, to gain membership to one of these professional organizations, the practitioner must meet the minimum licensing law requirements for his/her state. These professional organizations often have referral services and can recommend a qualified practitioner in your area.

In the absence of licensing laws, there are no precise ways to determine the relative competence of a CAM practitioner. However, common sense can provide some general direction. For instance, take notice of those practitioners who have had extensive training and an on-going commitment to continuing education. Often times a practitioner's professional initials do not reflect the extent of their expertise or competence in certain fields of study. For example, an acupuncturist who has received thousands of hours of training and attended multiple postgraduate seminars is more qualified, despite the lack of an MD designation, than a medical doctor who has only taken a weekend training course in acupuncture.² Experience is another useful common sense guideline. All practitioners, both conventional and CAM alike, improve with practice. Be sure to inquire about the extent of training the practitioner has had in the technique/treatment in which you are interested. Lastly, in communicating with your

practitioners, be sure to ask about his/her board or organizational certifications of completion to help you determine their competency.

The following information is intended to provide you with an overview of the education, training, licensing and accreditation of various health care practitioners:

Acupuncture

No specific criterion exists which can be utilized to evaluate the competence of an acupuncturist. The situation is complicated by the fact that the field of acupuncture is very diverse. There are many distinct styles of acupuncture, which include traditional Chinese medicine, Japanese Manaka style, Korean hand acupuncture and the Worsley method. Additionally, the field is subject to practitioner bias as advocates of each style tend to believe that their method is better than all others.³

There is no national licensure for acupuncture, and educational requirements, licensure and regulations regarding the practice of acupuncture vary from state to state. This inconsistent licensure at the state level makes it difficult to evaluate an acupuncturist's credentials. Legislation in at least 35 states plus the District of Columbia regulate the practice of acupuncture, and about a quarter of these states grant licenses to practice acupuncture.⁴ In unregulated states, acupuncture is technically illegal unless performed by a physician.⁵ Even titles vary as an acupuncturist may be "licensed," "certified," "registered" or considered a "doctor" of acupuncture or Oriental medicine.⁶ To make matters more confusing, these titles do not have a consistent relationship to educational requirements.

The Accreditation Commission for Acupuncture and Oriental Medicine (301-608-9680) sets national standards for acupuncture schools and can send you a list of accredited institutions. The National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM) administers a standardized examination testing mastery of acupuncture. An acupuncturist must pass this exam and meet continuing education requirements every two years in order to retain certification. At a minimum, an acupuncturist should be licensed in the state where he/she practices, if such licenses exists, and have received NCCAOM certification. If the practitioner does not have a license, he/she should have graduated from an accredited acupuncture school and/or satisfied the requirements of the National Commission for the Certification of Acupuncturists (NCCA). In the state of California, an acupuncturist must have graduated from an approved school, completed four academic years of education and obtained a state license. The state licensure process consists of qualifying and passing California's written and clinical examination administered by the state Acupuncture Board. California does not recognize out-of-state licensing for practice within its state lines.

Medical doctors can practice acupuncture, though physician-acupuncturists are seldom as fully trained in the art as non-physician licensed acupuncturists. For example, a board-certified acupuncturist is required to have over fifteen hundred hours of training

while a medical doctor can practice acupuncture with as little as one weekend course in acupuncture technique and treatment.⁷ For this reason, be sure to ask a physician-acupuncturist about his/her training and experience in the field. Physician's Assistants can perform acupuncture under the supervision of a physician.

Qualified acupuncturists can be recommended by one of the national associations listed below. These organizations can provide names of practitioners who meet certain competency standards.

American Academy of Medical Acupuncture

5820 Wilshire Boulevard, Suite 500

Los Angeles, CA 90036

Telephone: (800) 521-2262

Web site: www.medicalacupuncture.org

Professional association for physician-acupuncturists; publications; membership list

American Association of Oriental Medicine

433 Front Street

Catasauqua, PA 18032

Telephone: (610) 266-1433

Web site: www.aaom.org

Professional association for nonphysician acupuncturists; education; publications; membership list

Acupressure

Currently, there is no national, state licensure or widely accepted, standard credentialing agency for acupressure. Acupressure is administered by a wide variety of practitioners, from acupuncturists to massage therapists. Ideally, an acupressure practitioner should have a background in traditional Chinese medicine and thorough knowledge of the hundreds of acupressure points of the body. There is a certification program for practitioners of Oriental bodywork therapy, but it is a relatively new program and few practitioners have received certification. Referrals can be obtained through the American Oriental Bodywork Therapy Association or the American Association of Oriental Medicine.

American Association of Oriental Medicine

433 Front Street

Catasauqua, PA 18032

Telephone: (610) 266-1433

Web site: www.aaom.org

Professional association for nonphysician acupuncturists and practitioners of oriental medicine; education; publications; membership list

American Oriental Bodywork Therapy Association
Laurel Oak Corporate Center, Suite 408
1010 Haddonfield-Berlin Road
Voorhees, NJ 08043
Telephone: (609) 782-1616
Web site: www.healthy.net/pan/pa/bodywork/about1.htm

Alexander Technique

While there is no national licensure or certification requirements, the North American Society of Teachers of the Alexander Technique has well-established programs and will certify teachers with at least 1,600 hours of training over a three-year period. The Society will give referrals of certified teachers.

North American Society of Teachers of the Alexander Technique
3010 Hennepin Avenue, South
Minneapolis, MN 55408
Telephone: (800) 473-0620
Web site: www.alexandertech.com

Information and publications on the Alexander technique; practitioner lists

Allopathic Medicine

All medical doctors are educated and trained in accredited U.S. medical schools or foreign medical schools and must pass the three parts of the USMLE licensing examination. Training for competency in alternative treatments is not yet an integral part of standard medical education. The American Holistic Medical Association (AHMA) is sensitive to the fact there are no national standards of competency in alternative treatments for medical doctors and has recently established the American Board of Homeotherapeutics “for the purpose of certifying physicians as practitioners of holistic medicine.”⁸ In addition to the board examination, the certification process for the American Board of Homeotherapeutics requires an interview, a self-administered test of holistic health and a minimum of six years in active medical practice.

In many states, medical doctors, just by the broad scope of their license to practice medicine, can offer alternative treatments to their patients in which they have not demonstrated competency. However, there is a growing trend to protect health care consumers from untrained medical doctors who offer several types of alternative treatments such as acupuncture, Chinese medicine and homeopathy. Check with your state medical board to find out if your physician must possess a license to offer you the alternative therapy that you desire.

American Holistic Medical Association
6728 Old McLean Village Drive
McLean, VA 22101
Telephone: (703) 556-9728
Web site: www.holisticmedicine.org
Information; magazine

Aromatherapy

There is no national or state licensure for aromatherapy. Without standards for training or certification, it is an essentially unregulated practice. The National Association for Holistic Aromatherapy (NAHA) is developing educational standards for certification that will provide national guidelines for students and teachers.

National Association for Holistic Aromatherapy (NAHA)
P.O. Box 17622
Boulder, CO 80308-7622
Telephone: (888) ASK-NAHA
Web site: www.naha.org

Art Therapy

Educational and professional standards for art therapists are regulated by the professional organization, American Art Therapy Association, Inc. The Art Therapy Credentials Board (ATCB) is an organization established to protect the public through maintaining and developing standards of practice for art therapists. The designation Art Therapist Registered (ATR) is granted by the ATCB to individuals who have completed the required educational and professional experience. Board Certified (ATR-BC) art therapists are individuals who have passed the national certification examination.

Art Therapy Credentials Board
3 Terrace Way, Suite B
Greensboro, NC 27403-3660
Telephone: (877) 213-2822
Web site: www.atcb.org

Ayurveda

Currently, there is no national licensure of Ayurvedic practitioners in the United States. A small number of schools offer minimal training in Ayurvedic principles but there are not any colleges offering the five years of training that is the educational standard in India.⁹

Biofeedback

There is no national licensure for biofeedback, nor are biofeedback practitioners required by law to be certified. States that license psychologists and nurses have mandated that either of these licenses is all that is required to practice biofeedback. Biofeedback technicians may work under their employer's license. There are training programs certified by the Biofeedback Certification Institute of America (BCIA). Practitioners who wish to be certified must have a bachelor's degree in a health care field, complete a required number of hours of biofeedback education and undergo supervised clinical training.¹⁰

Association for Applied Psychophysiology and Biofeedback
10200 West 44th Avenue, Suite 304
Wheat Ridge, CO 80034
Telephone: (800) 477-8892

Web site: www.aapb.org

Publications, membership list; training; certification; referrals

Biofeedback Certification Institute of America (BCIA)

10200 West 44th Avenue, Suite 310

Wheat Ridge, CO 80033

Telephone: (303) 420-2902

Web site: www.bcia.org

[Listing of state biofeedback chapters; certification requirements](#)

Chiropractic

There is national licensure for chiropractic to which all fifty states plus the District of Columbia and Puerto Rico adhere. A licensed Doctor of Chiropractic (D.C.) must have completed a four-year chiropractic college program of study accredited by the Council on Chiropractic Education (CCE) and/or approved by a state board. National exams and various state assessments are also required. Chiropractors can legally do more than manipulate and align the spine. They will usually take a medical history, perform a physical exam and/or order lab tests and X-rays to arrive at a diagnosis.

Federation of Chiropractic Licensing Boards

901 54th Avenue, Suite 101

Greeley, CO 80634

Telephone: (970) 356-3500

Web site: www.fclb.org/index.htm

Energetic Healing

There is no national licensure for energetic healing, and licensing laws are inconsistent at the state level. In general, energetic healing is an unregulated practice. Several schools offer certificate programs in what they call energetic healing. These are usually hybrid programs that combine color therapy, flower essence therapy, magnetic therapy, aromatherapy, hypnotherapy, laying on of hands, meditation and sound healing.¹¹

Environmental Medicine

Environmental medicine practitioners are generally physicians, M.D.s or D.O.s, who have been trained by other physicians and/or have taken advanced courses in the treatment of environmental illnesses. The American Academy of Environmental Medicine offers such courses to licensed physicians and will provide referrals.

American Academy of Environmental Medicine

American Financial Center

7701 East Kellogg, Suite 625

Wichita, KS 67207-1705

Telephone: (316) 684-5500

Web site: www.healthy.net/aaem/

Guided Imagery

There is no national or state licensure for guided imagery, and like many mind-body therapies, it is an unregulated practice. Workshops in guided imagery are open to professionals in the counseling field such as psychologists, certified counselors and social workers. Many hospitals, health organizations, books and videos also offer self-help courses in guided imagery.

Herbal Medicine

There are several different approaches to using herbal medicine in the United States. While there is no national licensure for herbal medicine, a practitioner must have a license to practice naturopathy or traditional Chinese medicine in order to prescribe herbal preparations. Only on Native American reservations can a non-medically trained herbalist prescribe herbs. If a herbalist does not have a state license, legally he/she can only be an herbal "consultant."¹²

The National Commission for the Certification of Acupuncturists recently developed an examination process for the certification of practitioners as Diplomates of Chinese Herbology. Unfortunately, outside of state and local licensing regulations, there is no national or professional association that regulates or accredits herbal medicine education. Because of the unregulated nature of this practice and the potential for contraindications, consumers should be careful in selecting an herbalist.

Homeopathy

Nationally, any licensed medical doctor or osteopath can prescribe homeopathic remedies in the United States. Because there are no national standards of competency in alternative medicine for allopathic doctors and osteopaths, the American Board of Homeotherapeutics administers written and oral examinations to interested M.D.s and D.O.s. Those who successfully pass the examination are awarded the Diplomate in Homeotherapeutics (D.Ht.). In some states, naturopathic physicians may also practice homeopathy and may take a board certification examination (Homeopathic Academy of Naturopathic Physicians Board Certification Examination) to become certified in homeopathy.

Training in homeopathy for other health care providers in the United States is usually three years in length, typically meeting one weekend per month during the training period. A number of certification programs are available. The Council for Homeopathic Certification (CHC) administers a certification examination and awards successful candidates a certificate stating they are Certified in Classical Homeopathy (C.C.H.). The National Board of Homeopathic Examiners (NBHE) offers diplomate status to candidates with a Ph.D., D.C., M.D., D.O., P.A., N.D. or O.M.D. and certificate status to candidates without a doctorate. There is inconsistent licensure at the state level, and other health care and CAM practitioners may or may not be allowed to prescribe homeopathic medicines. You should contact the National Center for Homeopathy for information on specific state regulations.

American Board of Homeotherapeutics
801 North Fairfax Street, Suite 306
Alexandria, VA 22314
Telephone: (703) 548-7790

Council for Homeopathic Certification
1199 Sanchez Street
San Francisco, CA 94114
Telephone: (415) 789-7677
Certification, directory

Homeopathic Academy of Naturopathic Physicians
12132 S.E. Foster Place
Portland, OR 97266
Telephone: (503) 761-3298
Web site: www.healthy.net/hanp

National Board of Homeopathic Examiners
5663 N.W. 29th Street
Margate, FL 33063
Telephone: (954) 420-0669

National Center for Homeopathy
801 North Fairfax Street, Suite 306
Alexandria, VA 22314
Telephone: (703) 548-7790
Web site: www.homeopathic.org
Professional association; accreditation, directory

Hypnotherapy

Currently, there is no national or state licensure for hypnotherapists. Anyone can legally offer his or her services to the public. The International Medical and Dental Hypnotherapy Association will certify hypnotherapists if they meet the minimum eligibility requirements and provide referrals.

International Medical and Dental Hypnotherapy Association
4110 Edgeland, Suite 800
Royal Oak, MI 48073-2285
Telephone: (800) 257-5467
Web site: www.infinityinst.com/aboutim.html
Referrals; publications

Massage Therapy and Bodywork

Massage and bodywork therapies encompass acupressure, Alexander technique, applied kinesiology, aromatherapy, craniosacral therapy, deep muscle therapy, deep tissue massage, Feldenkrais method, hydrotherapy, qigong, reflexology, reiki, rolfing, Swedish massage, therapeutic touch and others. There is no national licensure and inconsistent licensure at the state level. Many states have no educational or training requirements for massage therapists. Whether or not state laws are in place, local or

county laws may apply. The American Massage Therapy Association (AMTA) can provide current information on a specific state's massage laws. The AMTA is also the largest accrediting organization in massage training. Unfortunately, only one-fourth of U.S. massage schools have been granted accreditation.¹³ The National Certification Board for Therapeutic Massage and Bodywork administers a certification examination and an increasing number of states use this as their licensing exam. It is important to make sure your therapist is properly qualified and membership in the AMTA is the best evidence that your therapist has had the proper training. The AMTA also keeps a national list of trained massage therapists for referrals.

American Massage Therapy Association
Commission on Massage Training
Accreditation/Approval
820 Davis Street, Suite 100
Evanston, IL 60201-4444
Telephone: (847) 864-0123
Web site: www.amtamassage.org
Professional association; information; referrals

National Certification Board for Therapeutic Massage and Bodywork
8201 Greensboro Drive, Suite 300
McLean, VA 22102
Telephone: (800) 296-0664
Web site: www.ncbtmb.com

Meditation

There is no licensing or certification procedure for teachers of meditation. There are a number of “universities” around the country, run by the Maharishi Vedic Education Development Corporation, which teach the transcendental meditation method.¹⁴ Hospitals, clinics, private practices and fitness centers may have relationships with meditation instructors to whom they refer patients. General recommendations include selecting a mediation instructor with whom you feel comfortable and who has experience.¹⁵

Naturopathy

There is no national licensure for naturopathy, and at the state level, licensure is inconsistent. Currently only a few states (Alaska, Arizona, Connecticut, Florida, Hawaii, Maine, Montana, New Hampshire, Oregon, Utah, Vermont and Washington) and Washington D.C. and Puerto Rico have licensing laws, and they differ considerably. If you reside in one of the states listed above, your naturopath should have a degree from one of the four accredited, four-year Naturopathic medical schools (Bastyr; National College of Naturopathic Medicine in Portland, Oregon; Southwest College of Naturopathic Medicine in Scottsdale, Arizona; and the Canadian College of Naturopathic Medicine in Toronto, Ontario) and have passed the national board exam, Naturopathic

Physicians Licensing Examination (NPLEX). The Council on Naturopathic Medical Education (CNME) is recognized by the U.S. Department of Education to accredit naturopathic schools and programs. Graduates from these schools are granted the title Naturopathic Doctor (ND) and are usually affiliated with the American Association of Naturopathic Physicians (AANP).

If you do not reside in one of the states listed above, your naturopath may or may not have a ND. In the states without a Naturopathic Doctor licensing board, N.D.s also have to be certified in a licensed type of bodywork to make it "legal" for them to do musculo-skeletal work. Other practitioners of Naturopathy, termed Naturopathic Practitioners, have attended and received training from a non-accredited naturopathic college. Naturopathic Practitioner is a specific, state-approved vocational designation that enables graduates of non-accredited colleges to legally provide naturopathy to health care consumers. These naturopaths are usually affiliated with the American Naturopathic Medical Association (ANMA). In several states, Naturopathic Practitioners can sit for a national board certification test to get their N.D.s.

American Association of Naturopathic Physicians
601 Valley Street, Suite 105
Seattle, WA 98109
Telephone: (206) 298-0126
Web site: www.naturopathic.org
Information on licensing; referrals

American Naturopathic Medical Association
P.O. Box 96273
Las Vegas, NV 89193
Telephone: (702) 897-7053
Web site: www.anma.com

Osteopathy

The Doctor of Osteopathic Medicine degree (D.O.) is legally equivalent to that of a M.D., and osteopathy has, for the most part, been assimilated into the larger stream of conventional medicine. All physicians (both D.O.s and M.D.s) must pass a national and state medical board examination in order to obtain a medical license and practice medicine. The National Board of Osteopathic Medical Examiners can give you information about the status of an osteopath's medical license.

National Board of Osteopathic Medical Examiners
8765 W. Higgins Road, Suite 200
Chicago, IL 60631
Telephone: (773) 714-0622
Web site: www.nbome.org

Polarity Therapy

There is no national licensure of polarity therapists, and licensure at the state level is inconsistent. In some states, polarity therapy is considered a form of massage, and therapists are subjected to the same licensing laws as massage therapists. In other states, polarity therapy is unregulated. The American Polarity Therapy Association accredits educational programs and grants practitioners certification and registration. Practitioners who have completed 155 hours of training receive certification as an Associate Polarity Practitioner (A.P.P.) and those with 615 hours of training receive certification as a Registered Polarity Practitioner (R.P.P.).

American Polarity Therapy Association

2888 Bluff Street, Suite 149

Boulder, CO 80301

Telephone: (303) 545-2080

Web site: www.polaritytherapy.org/

Information and publications; practitioner lists

Reflexology

There is no national licensure for reflexologists. Practitioners do have the option to become certified by the American Reflexology Certification Board.

American Reflexology Certification Board

P.O. Box 620607

Littleton, CO 80162

Telephone: (303) 933-6921

Traditional Chinese Medicine (TCM)

See acupuncture.

Yoga

There is no national licensure or standard certification requirements for yoga instructors. However, some yoga schools do certify their graduates.¹⁶ Becoming a yoga instructor or yoga therapist requires a high level of personal dedication. To be admitted to most training programs, prospective yoga instructors must have been practicing yoga for daily for six months to a year, abstain from drugs, alcohol and tobacco and follow a vegetarian diet. Seeking a referral from your health care provider and asking other patients undergoing yoga therapy for recommendations are good ways to find an experienced and qualified yoga therapist.

¹ Bratman, Steven. The Alternative Medicine Sourcebook. Los Angeles, CA: Lowell House, 1998; pg. 208.

² Bratman, Steven. The Alternative Medicine Sourcebook. Los Angeles, CA: Lowell House, 1998; pg. 209.

³ Bratman, Steven. The Alternative Medicine Sourcebook. Los Angeles, CA: Lowell House, 1998; pg. 125.

⁴ Cassileth, Barrie R. The Alternative Medicine Handbook. New York, NY: W. W. Norton and Company, 1998. pg. 21.

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- ⁵ Yahoo! Incorporated (1999). "Yahoo! Health: Acupuncture." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Acupuncture/.
- ⁶ Yahoo! Incorporated (1999). "Yahoo! Health: Acupuncture." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Acupuncture/.
- ⁷ Morton, Michael and Morton, Mary (1997). "The M.D. as an Alternative Practitioner." [Online]. Available WWW: <http://www.healthy.net/library/articles/morton/md.htm>.
- ⁸ American Holistic Medical Association Brochure
- ⁹ Lyons, Dianne J.B. Planning Your Career in Alternative Medicine. Garden City Park, NY: Avery Publishing Group, 1997; pg. 7.
- ¹⁰ Lyons, Dianne J.B. Planning Your Career in Alternative Medicine. Garden City Park, NY: Avery Publishing Group, 1997; pg. 8.
- ¹¹ Lyons, Dianne J.B. Planning Your Career in Alternative Medicine. Garden City Park, NY: Avery Publishing Group, 1997; pg. 10.
- ¹² Lyons, Dianne J.B. Planning Your Career in Alternative Medicine. Garden City Park, NY: Avery Publishing Group, 1997; pg. 13-14.
- ¹³ Lyons, Dianne J.B. Planning Your Career in Alternative Medicine. Garden City Park, NY: Avery Publishing Group, 1997; pg. 23.
- ¹⁴ Yahoo! Incorporated (1999). "Yahoo! Health: Meditation." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Meditation/.
- ¹⁵ Yahoo! Incorporated (1999). "Yahoo! Health: Meditation." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Meditation/.
- ¹⁶ Yahoo! Incorporated (1999). "Yahoo! Health: Yoga." [Online]. Available WWW: http://health.yahoo.com/health/Alternative_Medicine/Alternative_Therapies/Yoga/.

Appendix D: The Wellness Community Oncologist-Patient Statement

The effective treatment of serious illness requires a considerable effort by both the patient and the physician. A clear understanding by both of us as to what each of us can realistically and reasonably expect of the other will do much to enhance the outlook. I am giving this "statement" to you as one step in making our relationship as effective and productive as possible. It might be helpful if you would read this statement and, if you think it appropriate, discuss it with me.

As your physician I will make every effort to:

1. Provide you with the care most likely to be beneficial to you.
2. Inform and educate you about your situation, and the various treatment alternatives. How detailed an explanation is given will be dependent upon your specific desires.
3. Encourage you to ask questions about your illness and its treatment and to answer your questions as clearly as possible. I will also attempt to answer the questions asked by your family; however, my primary responsibility is to you, and I will discuss your medical situation only with those people authorized by you.
4. Remain aware that all major decisions about the course of your care shall be made by you. However, I will accept the responsibility for making certain decisions if you want me to.
5. Assist you to obtain other professional opinions if you desire, or if you believe it to be in your best interests.
6. Relate to you as one competent adult to another, always attempting to consider your emotional, social, and psychological needs as well as your physical needs.
7. Spend a reasonable amount of time with you on each return visit unless required by something urgent to do otherwise, and give you my undivided attention during that time.
8. Honor all appointment times unless required by something urgent to do otherwise.
9. Return phone calls as promptly as possible, especially those you indicate as urgent.
10. Make available test results promptly if you desire such reports.
11. Provide you with any information you request concerning my professional training, experience, philosophy and fees.
12. Respect your desire to try treatment that might not be conventionally accepted. However, I will give you my honest opinion about such unconventional treatments.

13. Maintain my active support and attention throughout the course of the illness.

I hope that you as the patient will make every effort to:

1. Comply with our agreed-upon treatment plan.
2. Be as candid as possible with me about what you need and expect from me.
3. Inform me if you desire another professional opinion.
4. Inform me of all forms of therapy you are involved with.
5. Honor all appointment times unless required by something urgent to do otherwise.
6. Be as considerate as possible of my need to adhere to a schedule to see other patients.
7. Attempt to make all phone calls to me during the working hours. Call on nights and weekends only when absolutely necessary.
8. Attempt to coordinate the requests of your family and confidants, so that I do not have to answer the same questions about you to several different people.

The Wellness Community Oncologist-Patient Statement. (Courtesy of Harold Benjamin, Ph.D., The Wellness Community, Santa Monica, CA)

Appendix E: How To Be Prepared Before, During, And After Appointments With Your Health Care Providers

Appointment Preparation

- Make a list of your objectives and concerns to cover during the appointment in order of importance.
- Write down questions you wish to ask your doctor so that you will not forget them. Asking questions is essential to getting what you want out of the appointment.
- Bring someone with you, if possible. A family member or close friend can assist you in taking notes or being a 'second pair of ears' when you are receiving a lot of information.
- Prepare a detailed, well-organized account of your symptoms and relevant past medical history. For return visits, prepare a brief progress report.
- Bring your insurance cards, names and addresses of your other health care providers and/or your medical records with you to your appointment.
- Make a list of medicines (name and dose) you are taking or bring your medicine bottles with you to your appointment. Your doctor needs to know ALL of the medicines you take (even non-prescription drugs) because it is possible for medicines to interact, causing unpleasant and sometimes dangerous side effects. In addition to over-the-counter medicines such as eye drops and laxatives, it is extremely important that you inform your health care providers about any vitamins, minerals and herbs you are taking. For return visits, make a list of any medication refills you need.

During the Appointment

- Answer your doctor's questions honestly even if you believe your answers are not what your doctor wants to hear. Your doctor can give you the best treatment only when you respond honestly to all his/her questions.
- Be concrete and specific about your symptoms and/or any side effects you are experiencing. Your doctor needs to know your opinions and observations about what is working and what is not working in order to prescribe proper treatment for your symptoms.
- Report any unusual symptoms you have noticed such as change in appetite, weight, sleeping pattern or energy level.
- Tell your doctor about any fears or complaints you have about your treatment.

- Always ask your doctor to explain anything about your disease or your treatment that you do not understand. If you do not fully understand your doctor's explanation, he/she will not know unless you say something. Do not be embarrassed to ask the same question twice. Part of your doctor's job is to educate you about your disease and your treatment.
- Ask about possible side effects of your treatments and what to do if they should occur. Ask what to do if there is an emergency, or when the office is closed.
- Take notes or tape record the appointment (ask for permission first) if you are worried about forgetting information your doctor gives you. If medication instructions are unclear, ask for an explanation before leaving the office.
- Pay attention to and be cordial with the office staff and nurses. You will have to talk with them often, and a receptionist or nurse can be a powerful ally when wishing to speak with your doctor on the phone or when making an appointment.
- Cancer care often involves a team of health care providers with different areas of expertise. This may be a team that is used to working together or it may be a team that you have put together yourself to integrate conventional treatments and complementary care. When there are many people involved, it can be difficult to keep several sets of instructions straight. Make sure you understand all of your instructions. Because you are the focus of this health care team, it is important that your treatment plan is understood by all the team members. If you have put together your own team of health care providers, you may need to be more active in ensuring communication between members of your team.

After Your Appointment

- Keep track of your treatment.
- If you have a problem with your treatment, consult your doctor before attempting to change your therapy without assistance.
- Stay alert for side effects. If you do not know or remember specific instructions about side effects from your appointment, call your doctor.

Telephone Tips

- Learn which days are busiest and what times are best to call. It is usually best to call early in the workday because your doctor is likely to be less busy.

- Before calling your doctor's office, write down a short description of the problem you are having, your reason for calling, your symptom list and a few questions that you might have.
- Have a pen and paper ready to write down instructions.

Finances

- Do not be afraid to ask your doctor how much something will cost or if there are less expensive options.
- There are many things you can do for your health that cost little or nothing. Some examples include eating a healthier diet, starting an exercise routine appropriate for your health situation or joining a support group.