COMPLEMENTARY AND ALTERNATIVE MEDICINE

Many complementary and alternative therapies are rooted in cultures with a holistic approach to wellness and healing; cultures that considers a patient’s mind, body and spirit in treatment and care.

In the United States, the search for improved life quality and less toxic therapies and medications has resulted in an increasing number of patients turning to alternative or holistic treatments. Recent studies reveal that 50 -60 % of cancer patients use some form of these therapies, optimally while consulting with their physician and medical team.

This article offers a broad overview of Complementary and Alternative Therapies (CAM) in the hope of encouraging dialogue between brain tumor patients using these therapies and their healthcare providers. Also provided are resources to help find additional, reliable information about CAM practices and practitioners. We thank the National Center for Complementary and Alternative Medicine (NCCAM) for providing many of the resources for this overview.

DEFINITIONS

As you begin to explore the field of complementary and alternative medicine, you'll see several terms and phrases unique to this field of healthcare. Although uniform definitions of these terms do not yet exist, for purposes of this chapter we'll use the following definitions:

**Alternative medicine** is the term for therapies other than conventional treatments. Many alternative therapies seek to treat illness by helping the body to heal itself or to treat the "source" of the disease.

**CAM** is an acronym for Complementary and Alternative Medicine. Treatments which fall into this system of medicine are referred to as "CAM therapies."

Complementary medicine references healthcare practices used in addition to conventional treatments. Cancer patients use these practices primarily to manage or prevent pain, nausea, and treatment related side-effects to reduce stress and anxiety and to promote healing and well-being.

**Complementary medicine** offers non-conventional ways to relieve symptoms and improve quality of life.
Conventional medicine generally refers to the mainstream medical care practiced at most hospitals in the United States. Standards of care are set by government and regulatory agencies. In conventional medicine, an effective cancer treatment is defined as one that causes the size of a tumor to measurably shrink or remain stable.

Integrative medicine combines conventional medical care with complementary and/or alternative therapies. Chiropractic care, acupuncture, herbal medicine, massage therapy, behavioral therapies, and mind-body self-care may be "integrated" into a conventional treatment plan.

Traditional medicine existed prior to conventional medicine, and works to protect and restore health. These methods are generally based on cultural traditions handed down from generation to generation.

**TYPES OF THERAPY**

CAM therapies can be grouped into five "domains," or categories, as described by the National Center for Complementary and Alternative Medicine (NCCAM):

(1) **Alternative Medical Systems**

Many alternative medicine techniques are part of complete "systems" of healthcare that began many years before, or separate from, the development of conventional medicine. Often, these systems are the healthcare traditions practiced by a given culture. For example, Asia's system of traditional medicine focuses on the balance of qi (pronounced chi), or vital energy, in health and disease. This system incorporates the use of acupuncture, herbal medicine, oriental massage, and qigong. Ayurveda, India's traditional healthcare system, places equal emphasis on body, mind, and spirit. Ayurvedic practitioners strive to restore the inner harmony of the individual through diet, exercise, meditation, herbs, massage, exposure to sunlight, and controlled breathing. Other traditional medical systems are practiced by Native American, Aboriginal, African, Middle-Eastern, Tibetan, Central and South American cultures.

Homeopathic and naturopathic medicines are also examples of alternative medical systems.

Homeopathic medicine is based on the principle that "like cures like," i.e., the same substance that in large doses produces the symptom of an illness, in very miniscule doses may cure it. Homeopathic physicians believe that the more dilute the remedy, the greater its potency. Therefore, they 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.

Naturopathic medicine views disease as a sign of change in the way the body naturally heals itself, and emphasizes health restoration rather than disease treatment. Naturopathic physicians
incorporate an array of healing traditions into their practice including diet and clinical nutrition homeopathy acupuncture herbal medicine pharmacology hydrotherapy (the use of water in a range of temperatures and methods of applications) spinal and soft-tissue manipulation electric current, ultrasound and/or light therapies and therapeutic counseling.

(2) Mind-Body Interventions

Mind-body interventions are techniques designed to enhance the mind's capacity to affect bodily functions and symptoms. Many of these interventions, once considered CAM, now have a well-documented theoretical basis and are currently considered "mainstream," such as patient education and cognitive-behavioral approaches. Only a small subset of mind-body interventions are still considered CAM – meditation, certain uses of hypnosis, dance, music and art therapy, prayer and mental healing.

(3) Biologically-Based Therapies

This domain includes natural and biologically-based practices and products, many of which overlap with conventional medicine's use of dietary supplements. Included are herbal therapies, some dietary therapies, orthomolecular therapies (disease treatment by altering the concentrations of substances normally present in the human body), and individual biological therapies.

Herbal therapies use individual or combinations of herbs as treatments. 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 practices such as the use of laetrile and shark cartilage to treat cancer, and bee pollen to treat autoimmune and inflammatory diseases.

(4) Manipulative and Body-Based Methods

This domain includes therapies based on manipulation and/or movement of the body. For example, chiropractors focus on the relationship between body structure (primarily the spine) and function, and how that relationship affects the preservation and restoration of health. They often use manipulative therapy as a treatment technique. Osteopaths focus on the musculoskeletal system, believing that all of the body's systems work together and that disturbances in one system have an impact on function elsewhere in the body. Treatments in this domain are often based on osteopathic manipulation.
Energy therapies focus on energy fields thought to originate within the body (biofields) or those from other sources (electromagnetic fields). Biofield therapies are intended to affect the energy fields believed to surround 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 for Universal Life Energy, is based on the belief that channeling spiritual energy through the practitioner heals the spirit, and the spirit, in turn, heals the physical body. Therapeutic Touch follows the theory that the healing force of the practitioner can affect 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 practitioners identify energy imbalances. Bioelectromagnetic-based therapies involve the use of pulsed fields, magnetic fields, alternating current and/or direct current fields.

Learn more about the therapy and the practitioner

Information about CAM therapies can be easily found in books, from organizations supporting their use, and from friends and family. A list of internet resources follows. Learn as much as you can from as many resources as possible. Don't rely on one book, Internet site, magazine article, or person's experience.

There is an abundance of information about CAM therapy on the Internet. Some of this information is informative and reliable; much is not. If you find something of interest on the Web, learn who owns the site and its true purpose. A look at the url (Web) address of the site will give you a quick "inside track" – Web site addresses ending in "\.com" are commercial/business sites; "\.edu," college or university sites; "\.gov," government sites; and "\.org," not-for-profit organization sites. Try to be objective in looking at the site's content. The Internet can present scam and quackery, and yet in the same breath offer wonderful learning opportunities. It is the perfect place to develop your "selective consumer" skills!

In any reference you find, you'll want to know the author's credentials - is s/he licensed? What is his/her educational background and professional society affiliations? Some states require licensing or certification of CAM practitioners, but not all do. Remember, it is always appropriate to ask a healthcare practitioner – of any type – if they are licensed or certified in their field. If the practitioner tells you licensing is not required, find a professional society representing that area of CAM medicine and verify that information. If licensing is required, your state may have an online database through which you can verify the practitioner's licensure check with the state department of professional regulation. Your research will help you make an educated decision.
Immediately steer away from CAM practitioners who tell you to forego standard treatment in lieu of "their" therapies. Be cautious of any therapy claiming to have no side-effects; ALL treatments have the potential for side-effects. Herbs, vitamins and minerals can have contraindications (a potential adverse reaction when combined with other medications) or side-effects, just like prescription medicines. For example, gingko is thought to help improve memory, but you'll want to check with your doctor before using it since it has anticoagulant properties that can stop blood from clotting. St. John's Wort can have dangerous interactions when combined with drugs or food containing monoamine oxidase (MAO) inhibitors. And recently, there is concern that high doses of antioxidants may interfere with the effectiveness of several chemotherapy drugs. Therefore, it is critical that you check with your doctor or pharmacist to be sure that any herbs and/or supplements that you take are compatible with your drug regimen.

Several major drug stores can now cross-check your herbal/vitamin/neutriceutical supplements against your regular medications to ensure they do not interfere with each other. ExpressScripts offers such an online database at http://www.drugdigest.org/wps/portal/ddigest (click the Check Interactions tab on the horizontal menu.) Ask your pharmacist if s/he can provide this service to you, as well.

Share whatever you find with your doctor. Together, you can make a decision about whether a specific CAM therapy is appropriate for you.

ONLINE CAM RESOURCES

The "Alternative Medicine Homepage," maintained by the Falk Library of the Health Sciences at the University of Pittsburgh, offers links to CAM information on vitamins, minerals, homeopathy, herbs, phytochemicals (naturally occurring plant substances that fight disease), mind-body therapies, dietary supplements, folk medicine, animal and marine extracts, allopathic (traditional medical treatments), chiropractic medicine, as well as other CAM therapies and treatments. Access these resources at http://www.pitt.edu/~cbw/altm.html.

The Annie Appleseed Project is a non-profit organization providing CAM information for cancer patients and their families, including an overview of treatment options, research and clinical trial updates, and resources to help patients make informed decisions regarding CAM care. Their databases can be accessed at http://annieappleseedproject.org.

Dana-Farber Cancer Institute at Harvard University provides detailed descriptions of individual CAM treatments in both “patient” and “medical professional” formats at http://www.dana-farber.org/can/complementary-and-alternative-medicine/. The Web site also includes an overview and history of individual treatments, as well as studies and clinical trials on the effectiveness of these treatments, and possible side-effects.
“Guidelines for Using Complimentary and Alternative Medicine,” at http://www.cancer.org/docroot/ETO/content/ETO_5_3x_Guidelines_For_Using_Complementary_and_Alternative_Methods.asp is provided by the American Cancer Society and outlines questions to ask before starting treatment, and how to talk with your doctor about non-traditional approaches to care. In addition, the site outlines CAM risk and fraud dangers.

MedLine Plus, a service of the National Library of Medicine, offers comprehensive CAM information including CAM “basics,” the latest on CAM research and clinical trials, and specific CAM information pertaining to women, seniors, children and teens. Located at http://www.nlm.nih.gov/medlineplus/complementaryandalternativemedicine.html, the site provides helpful tips on how to pay for CAM treatment, talk to your doctor about CAM use, and find a CAM practitioner. Some information is offered in Spanish.

Memorial Sloan-Kettering Cancer Center provides evidence-based information on herbs, botanicals and supplements from the hospitals’ integrative medicine department, including a comprehensive list of books, Web sites, and news alerts on the latest research and warnings pertaining to CAM, at http://www.mskcc.org/mskcc/html/11570.cfm.

National Center for Complementary and Alternative Medicine (NCCAM) at the National Institutes of Health (NIH) provides comprehensive consumer information on CAM, including research results, helpful tips on understanding and use, and facts and commonly asked questions on specific therapies and treatments. NCCAM can be reached toll free from within the US at 888-644-6226 (international: 301-519-3153), or online at http://nccam.nih.gov.

Office of Cancer Complementary and Alternative Medicine (OCCAM) at the National Cancer Institute (NCI) was established in October 1998 to coordinate and enhance the organizations’ CAM research and consumer education efforts. The OCCAM web site, located at http://www.cancer.gov/cam/, provides comprehensive information on “understanding” CAM, health information resources related to CAM use, and up-to-date FDA alerts on various CAM therapies. Clinical trial information on CAM therapies, by cancer type, is available on the site at http://www.cancer.gov/cam/clinicaltrials_intro.html.

Office of Dietary Supplements (ODS) at the National Institutes of Health offers reader-friendly fact sheets about dietary supplements, vitamin and mineral supplements, botanical supplements, tips for older adults interested in dietary supplements, and help evaluating the labels on supplements. Access these online at http://ods.od.nih.gov/Health_Information/Health_Information.aspx. The site also offers free access to the International Bibliographic Information on Dietary Supplements database – an extensive collection of evidence-based journal articles searchable by the individual supplement name. Find IBIDS at http://grande.nal.usda.gov/ibids/index.php.
Quack Watch, online at http://www.quackwatch.org, offers suggestions for evaluating CAM therapies and insights into CAM therapies associated with questionable claims. The site is headed by a retired physician involved in several consumer healthcare sites. The live links in the reference lists can be interesting to those seeking additional resources.

The Richard and Hinda Rosenthal Center for Complementary and Alternative Medicine at Columbia University, online at http://www.rosenthal.hs.columbia.edu/index.html, provides comprehensive CAM information and resources, including patient information, research updates, and commonly asked questions and links to various CAM Internet sites. The site also includes a link to Columbia University’s Integrative Therapies Program for Children with Cancer at http://www.integrativetherapiesprogram.org/.

University of Texas MD Anderson (UTMDA) Cancer Center, at http://www.mdanderson.org/patient-and-cancer-information/cancer-information/cancer-topics/cancer-treatment/complementary-medicine/index.html outlines and defines CAM types and terminology, provides an evidence-based review of non-traditional treatments, answers many commonly asked questions, and provides current articles on various treatments and therapies.

Please note that inclusion in this resource article does not constitute endorsement of any author, method, treatment or philosophy. Our goal is to help you communicate with your healthcare team. We encourage you to make your physician aware of any CAM therapies you are currently using or are interested in using.

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