

What is CAM?

Complementary and alternative medicine (CAM) is a term used to describe a diverse group of healing systems that are not presently considered to be part of mainstream medicine. The goal of conventional medicine is to locate the physical source of a particular disease and then remove it. For example, if a patient has some sort of infection, a conventional doctor would probably prescribe a specific antibiotic to kill the invading bacteria. CAM practitioners, on the other hand, take a more "holistic" approach to healthcare. They believe that health and disease involve a complex interaction of physical, spiritual, mental, emotional, genetic, environmental, and social factors. In order to treat a disease or simply promote good health, CAM practitioners treat the whole body by taking all of these factors into account.

In the United States, this holistic approach to health has been labeled "alternative" for a variety of scientific, cultural, and political reasons. In many cases it is very difficult to scientifically test alternative practices, such as acupuncture, in the same way that certain conventional practices, such as medications, are tested. Although alternative therapies are often based on hundreds -- in some cases thousands -- of years of experience, the conventional medical community relies heavily on scientific evidence (rather than clinical experience) when evaluating the safety and effectiveness of a particular therapy. For this reason, many alternative practices that have not been thoroughly tested (or cannot be thoroughly tested) are considered "unscientific" by modern Western standards. In addition, many non-Western healing practices are not taught in United States medical schools, available to patients in U.S. hospitals, or even covered by health insurance in the country.

What does complementary medicine and alternative medicine mean?

The terms "complementary medicine" and "alternative medicine," although often used to mean the same thing, actually have quite different implications. Complementary medicine refers to medical practices used *together with* conventional medicine while alternative medicine is used *in place of* conventional medicine. An example of complementary medicine is the use of hypnotherapy together with pain medications to reduce anxiety and enhance relaxation in people recovering from severe burns. Following a special diet rather than taking medications to treat attention deficit/hyperactivity disorder (ADHD) is an example of alternative medicine.

What is integrative medicine?

The term "integrative medicine" is often used interchangeably with CAM, but it has a subtle and very important different meaning. Professionals who practice integrative medicine blend appropriate CAM therapies with mainstream medicine rather than simply adding one complementary therapy (such as herbs, for example) to a standard medical treatment. For example, an integrative treatment for Alzheimer's disease may include a combination of the following: (1) medications that increase certain brain chemicals, (2) antioxidants (such as vitamin E and *ginkgo biloba*) that scavenge free radicals, (3)

changes in lifestyle (such as walking programs and relaxation training) to reduce anxiety and improve behavior, and (4) music therapy to bolster the immune system. More and more Americans are becoming familiar with the term "integrative medicine," and studies have found that this blended approach to healthcare is safe and effective for a growing number of medical conditions.

What are the basic principles of CAM?

Although CAM therapies vary widely, several themes can be traced through them all:

- The focus is on the whole person -- physical, emotional, social, and spiritual.
- Prevention of illness is a primary concern.
- Treatments are highly individualized.
- Treatments are aimed at the causes of illness rather than at its symptoms.
- Treatments are designed to support the natural healing processes of the body.

Who is using CAM?

The barriers to integrative medicine are beginning to fall -- or, at least are becoming less difficult to overcome. Alternative healing practices are increasingly being tested for effectiveness and safety in well-designed research studies. The intermixing of diverse cultures in the West are bringing once distant healing practices to the forefront and more Americans are turning to integrative medical care than ever before.

The movement toward integrative medicine in the United States has been prompted by a growing consumer demand for CAM services. A landmark study published in 1993 found that more than one-third of Americans had sought CAM therapies, that in 1990 they had made more visits to CAM providers than to their primary care physicians, and that consumers had spent more than 13 billion dollars out-of-pocket for these CAM visits.

Studies suggest that demand for CAM services continues to grow at a startling rate. A 2001 survey found that nearly 70% of Americans have used at least one form of CAM therapy in their lifetime, making this "unconventional" medical approach one of the fastest growing sectors of American healthcare. Although herbs and supplements are not regulated by the U.S. Food and Drug Administration (FDA), pharmacies across the country are experiencing a tremendous surge in the demand for these alternative remedies. From 1991 to 1996 alone, the demand for over-the-counter natural remedies (including herbs and supplements) doubled. In a 1996 survey by Landmark Healthcare, more than 70% of HMOs reported an increase in requests for CAM by their members. Most patients (56%) requested acupuncture, followed by chiropractic (45%), massage (25%), acupressure and biofeedback (21% each), hypnotherapy (8%), and reflexology (4%).

Studies also suggest that U.S. medical schools may be warming up to CAM. As of 1998, 75 out of 117 (64%) U.S. medical schools offer at least one course in CAM. In a 1994 survey, 60 percent of doctors reported recommending CAM to their patients. Nearly half

of the doctors who responded to the survey acknowledged that they used CAM themselves. More and more health insurance plans are also covering CAM, particularly treatments such as acupuncture and chiropractic, whose safety and effectiveness in the treatment of certain health problems has been fairly well researched. A number of health plans now cover the Ornish heart program, which has a basis in yoga and nutrition. All of these changes in American healthcare point to the careful movement—often with a healthy dose of skepticism—toward an integrative medicine system that incorporates the most useful therapies from the world's many healing traditions.

What are the major types of CAM?

The National Center for Complementary and Alternative Medicine (NCCAM) classifies CAM therapies into five major groups:

- **Alternative Medical Systems:** built upon complete systems of theory and practice. Examples include homeopathy, naturopathy, traditional Chinese medicine (TCM), and Ayurveda.
- **Biological Medicine:** use of substances found in nature, such as herbs, foods, and vitamins to promote health.
- **Energy Medicine:** involves the use of energy fields to promote health. Some forms of energy medicine (known as biofield therapies) are designed to influence energy fields that are believed to surround and penetrate the human body. Examples of biofield therapies include qi gong, Reiki, and Therapeutic Touch. Other forms of energy medicine (known as bioelectromagnetic-based medicine) involve the use of electromagnetic fields, such as electroacupuncture.
- **Manual Medicine:** based on manipulation and/or movement of one or more parts of the body. Examples include osteopathy, physical therapy, massage, chiropractic, Feldeinkrais, and reflexology.
- **Mind-Body Medicine:** uses a range of techniques that help boost the mind's ability to influence bodily functions and symptoms. Examples include biofeedback, deep relaxation, guided imagery, hypnotherapy, meditation, prayer, support groups, and yoga.

What types of changes in policy are happening in order to incorporate CAM into the U.S. medical system?

In 1991, under a Congressional mandate, the National Institutes of Health (NIH) established the Office of Alternative Medicine (OAM) with an annual budget of 2 million dollars to coordinate NIH research on nontraditional health practices. Specifically, OAM was to evaluate CAM practices, support CAM research and training, and establish a CAM information clearinghouse for the general public.

In 1998 Congress established the National Center for Complementary and Alternative Medicine (NCCAM) to supersede the OAM. With an annual budget of more than 68 million dollars, NCCAM's mission is to support basic and applied CAM research and provide information to healthcare providers as well as the public. Among other efforts,

NCCAM focuses on research that evaluates the safety and effectiveness of herbs and nutritional supplements and their potential for interaction with medications. It also evaluates other CAM treatments such as acupuncture and chiropractic. NCCAM funds several research centers outside of the NIH (to learn more about the centers and their research agendas, visit NCCAM's web site at <http://nccam.nih.gov/research/>).

In July of 2000, the White House announced the establishment of a White House Commission on Alternative Medicine, designating the Chair and the first 10 members. The goal of the commission is to develop a set of legislative and administrative recommendations to maximize the benefits of CAM for the American public. Going beyond the research goals of NCCAM, the commission will set the agenda for the education and training of CAM practitioners as well as provide policy recommendations for the insurance industry coverage of alternative therapies.

What is the Future of CAM?

There are many encouraging signs that CAM is slowly becoming accepted into mainstream medicine. For example, breakthroughs in CAM research are frequently published in prestigious Western peer-reviewed journals such as the *Journal of the American Medical Association* and the *Annals of Internal Medicine*. Still, there are real obstacles to the achievement of truly integrated medicine. Some of these obstacles include cultural conflicts, lack of scientific studies, and administrative issues. However, because conventional doctors and CAM practitioners alike seek to create safe, effective, and affordable medical treatment for all patients, the integration of the best CAM into conventional medicine may not be worlds away.

Resources

The following web sites are all available free of charge, without subscription.

Government sites:

FDA Center for Food Safety and Applied Nutrition: Dietary Supplements

<http://vm.cfsan.fda.gov/~dms/supplmnt.html>

National Cancer Institute: Office of Cancer Complementary and Alternative Medicine (OCCAM)

<http://occam.nci.nih.gov/>

National Center for Complementary and Alternative Medicine (NCCAM)

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

Directories:

Rosenthal Center: Information Resources

<http://cpmcnet.columbia.edu/dept/rosenthal/CAM.html>

University of Pittsburgh: Alternative Medicine Homepage

www.pitt.edu/%7Ecbw/altm.html

References

Astin JA, Marie A, Pelletier KR, Hansen E, Haskell WL. A review of the incorporation of complementary and alternative medicine by mainstream physicians. *Arch Intern Med.* 1998;158(21):2303-2310.

Berman BM, Singh BB, Harnoll SM, Singh BK, Reilly D. Primary care physicians and complementary-alternative medicine: training, attitudes, and practice patterns. *J Am Board Fam Pract.* 1998;11:272-281.

Blumenthal M. Introduction. In: Blumenthal M, Busse WR, Goldberg A, eds. *The Complete German Commission E Monographs: Therapeutic Guide to Herbal Medicines.* Boston, Mass: Integrative Medicine Communications; 1998:5-70.

Davant C III. What you should tell patients about alternative medicine. In: Micozzi MS, Bacchus AN, eds. *The Physician's Guide to Alternative Medicine.* Atlanta, Ga: American Health Consultants; 1999:363-366.

Eisenberg DM, Kessler RC, Foster C, et al. Unconventional medicine in the United States. *N Engl J Med.* 1993;328(4):246-252.

Jonas WB. One kind of medicine or many? The view from the NIH. In: Micozzi MS, Bacchus AN, eds. *The Physician's Guide to Alternative Medicine.* Atlanta, Ga: American Health Consultants; 1999:367-369.

Kessler RC, Davis RB, Foster DF, et al. Long-term trends in the use of complementary and alternative medical therapies in the United States. *Ann Intern Med.* 2001;135:262-268.

Micozzi MS. Characteristics of Complementary and Alternative Medicine. In: Micozzi MS, ed. *Fundamentals of Complementary and Alternative Medicine.* New York, NY: Churchill Livingstone; 1996:3-8.

National Center for Complementary and Alternative Medicine. About NCCAM: General Information. Accessed on August 8, 2002 at <http://nccam.nih.gov/htdig/search.html>.

Novey DW. Basic principles of complementary/alternative therapies; The dilemma of evidence; Leaving the medical model; and Integration. In: *Clinician's Complete Reference to Complementary/Alternative Medicine*. St. Louis, Mo: Mosby; 2000:5-7, 7-9, 10-12, 13-16.

Pelletier KR. *The Best Alternative Medicine*. New York, NY: Simon & Schuster; 2000.

Pelletier KR, Astin JA. Integration and reimbursement of complementary and alternative medicine by managed care and insurance providers: 2000 update and cohort analysis. *Altern Ther Health Med*. 2002;8(1):38-39, 42, 44.

Pelletier KR, Astin JA, Haskell WL. Current trends in the integration and reimbursement of complementary and alternative medicine by managed care organizations (MCOs) and insurance providers: 1998 update and cohort analysis. *Am J Health Promot*. 1999;14(20):125-133.

The White House: Office of the Press Secretary—Statement by the President [press release]. M2 Presswire; July 14, 2000.

Thomas KJ, Nicholl JP, Coleman P. Use and expenditure on complementary medicine in England: a population based survey. *Comp Ther Med*. 2001;9:2-11.

Woodham A, Peters D. *Encyclopedia of Healing Therapies*. New York, NY: DK Publishing; 1997.