

People have used complementary and alternative medicine (CAM) for thousands of years without knowing whether it is safe or effective. CAM therapies and medical systems are widely used and available in the United States. They include diverse practices such as dietary supplements and botanicals, traditional Chinese medicine, acupuncture, mind-body medicine, and therapeutic massage.

### Today

- Millions of Americans use CAM for health concerns and general wellness and spend tens of billions of dollars each year on such care. In a recent Government survey, 36% of adults reported using CAM in some form.
- In 1999, the National Center for Complementary and Alternative Medicine (NCCAM) was established as the arm of the National Institutes of Health (NIH) to rigorously evaluate the safety and efficacy of CAM therapies, train researchers to conduct CAM research, and provide outreach to the public and health care professionals about CAM research results. Since its inception, NCCAM has funded more than 1,200 research projects to learn about how CAM therapies work as well as their safety and efficacy.
- The following examples illustrate important research findings that inform the choices the public and practitioners are making regarding the use of CAM.
- Using state-of-the-art imaging technology, NIH documented the power of the mind to activate certain parts of the brain to block pain signals, providing important information on how the placebo effect works.
- In the largest clinical trial to date to test the safety and efficacy of acupuncture, NIH-supported researchers found that acupuncture significantly reduced pain associated with osteoarthritis of the knee when used as a complement to conventional therapy. Other studies demonstrated that acupuncture provides relief for vomiting and nausea from chemotherapy.

- Another NIH-supported study found that a combination of the popular dietary supplements glucosamine and chondroitin may relieve moderate-to-severe pain in patients with osteoarthritis of the knee.
- NIH also learned that so-called “natural” therapies may not always be safe or effective. For example, kava, an herb that has been widely used for insomnia, stress, and anxiety, has been linked to liver damage. Other botanical products, such as St. John’s wort, which is used for depression, may interact with certain drugs and affect how the body processes a drug, making it less effective.

### Tomorrow

**NIH is poised to make major discoveries in understanding CAM therapies and to use this information to expand the horizons of health care.**

- We are learning how Americans access and evaluate information about CAM and what drives their treatment choices. The U.S. public uses CAM and chooses CAM therapies in combination with conventional care. However, surveys show that patients are not informing their physicians of their self-care with CAM, and physicians report their lack of knowledge of CAM. Studies are in progress to evaluate the outcomes and costs of CAM treatment regimens. Additionally, educational outreach is under way to facilitate a conversation between patients and their physicians about CAM use.

- NCCAM is funding major studies of popular CAM therapies. To test the ability of CAM therapies to prevent the onset and progression of disease, NIH funded a large ongoing trial of Ginkgo biloba to examine its ability to prevent dementia in over 3,000 older individuals. NIH is also supporting a trial of selenium and vitamin E to prevent prostate cancer in 36,000 healthy men.
- Through the CAM research supported by NIH Americans will have the scientific evidence they need to support the integration of a variety of CAM therapies into conventional medical settings. The full realization of this vision requires that standardized CAM modalities be developed and tested rigorously across a range of doses in a variety of patient populations, and that credible information on the safety and effectiveness of these therapies be disseminated to the public and practitioners.