

NCCAM Seeks Scientific Answers On CAM for Cancer

This year, over 1.3 million Americans will find out that they have cancer. A major public health concern, cancer was the second-leading cause of death in the United States in 2001. Cancer cost Americans \$171.6 billion in medical bills and time lost from work in 2002, according to the National Institutes of Health (NIH).

Many cancer patients and their caregivers use complementary and alternative medicine (CAM). One survey places the percentage of adult cancer patients who use CAM at 83 percent. The NCCAM Clearinghouse (see box on page 2), which responds to inquiries about CAM from the public, receives more questions about CAM for cancer than for any other medical condition.

Meeting CAM Information Needs

NCCAM and NCI's Office of Cancer Complementary and Alternative Medicine recently conducted a qualitative research study with cancer patients and their caregivers about their CAM information needs. Patients and family members use the Internet, books, support groups, and word-of-mouth to seek out CAM information. But, more than any other source, most want to hear about CAM from their doctors. They want the doctor to be open to discussing CAM and knowledgeable about credible resources.

NCCAM and NCI are developing educational materials to help doctors and patients discuss CAM use. ■

NCCAM Director Stephen E. Straus, M.D., observes, "For millions of Americans, cancer prevention and treatment concerns are not being adequately addressed through conventional medicine. Many are turning outside the medical mainstream to CAM approaches that are affordable and accessible, but largely untested."

A few of the CAM approaches used by cancer patients include prayer, meditation, and other forms of spiritual practice; vitamins, herbs, and special diets; exercise and other movement therapies; imagery¹ and other relaxation techniques; and traditional Chinese medicine.

NCCAM is funding rigorous studies on CAM for cancer prevention and treatment (including whether CAM therapies may interfere with or enhance conventional therapies). It does so through grants to researchers at leading centers around the country and in its own Division of Intramural Research. In fiscal year 2002, NCCAM's expenditures for cancer research totaled \$14,253,000, or 16 percent of its research portfolio. In addition, NCCAM collaborates with other NIH Institutes and Centers, especially the National Cancer Institute (NCI).

A network of specialized centers of research is an integral part of NCCAM's research portfolio (read more at nccam.nih.gov/training/centers). Currently, two of these centers are focused on cancer research, and two others are conducting projects on CAM and cancer:

- ▶ **The Johns Hopkins Center for Cancer Complementary Medicine** is studying fish oil for pancreatic cancer and the antioxidant effects of herbs in cancer cells.
- ▶ **The Specialized Center of Research in Hyperbaric Oxygen Therapy** at the University of Pennsylvania is conducting four projects on the mechanisms of action, safety, and effectiveness of hyperbaric oxygen therapy² for head and neck tumors.
- ▶ **The Botanical Center for Age-Related Diseases** at Purdue University is studying whether polyphenols—chemical com-

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pounds found in some plants, such as soy, grapes, *Ginkgo biloba*, and berries—reduce the risk of developing cancer.

- ▶ **The UCLA Center for Dietary Supplements Research on Botanicals** is studying green tea and other botanicals—such as curcumin (a spice) and ganoderma mushrooms—for insights into their actions on tumor angiogenesis³; Chinese red yeast rice and its possible implications for cancer prevention; and multiple Chinese herbs for possible benefit in prostate cancer.

Clinical trials (research studies in people) are also under way. Some of these trials are investigating:

- ▶ **Acupuncture** and whether it reduces anxiety and improves quality of life in patients with advanced colorectal cancer
- ▶ **Shark cartilage** for its safety and effectiveness as a treatment in patients with advanced colorectal or breast cancer
- ▶ **An alternative diet** (the macrobiotic diet) and **flax seed**, to see if they help decrease the risk of developing breast cancer or uterine cancer
- ▶ **Noni**, a CAM therapy originating from Asian and Pacific Islands, and its possible usefulness in treatment and symptom management for cancer patients
- ▶ The vitamin **L-carnitine** and whether it reduces fatigue in cancer patients
- ▶ **Massage therapy**, to find out whether it eases swelling of the arms and legs related to treatment for breast cancer.

The NCCAM Division of Intramural Research's Oncology Program is investigating selected CAM therapies for cancer. Currently, the Division is conducting studies of:

- ▶ **Electroacupuncture**, for delayed nausea and vomiting from chemotherapy in pediatric patients with osteosarcoma. While existing data suggest that nausea and vomiting in the first 24 hours after chemotherapy can be effectively treated with conventional medicine, delayed symptoms (occurring from

24 hours to 5 days after chemotherapy) are harder to manage. Electroacupuncture, a variation of traditional acupuncture,⁴ involves placing needles on selected points on the body and pulsing them with an electric current to stimulate the points.

- ▶ The herb **mistletoe**, combined with the chemotherapy drug gemcitabine, for patients with pancreatic, colorectal, lung, or breast cancer. Data from early studies suggest that mistletoe, either alone or in combination with chemotherapy, may stimulate the immune system and help cancer patients to feel better overall.

More information on NCCAM-sponsored clinical trials is available at nccam.nih.gov/clinicaltrials.

NCCAM collaborates with NCI in a number of areas, including cosponsoring research; jointly producing information for the public; and, through NCI's Best Case Series (BCS) Program, offering an avenue for learning of potentially promising new CAM approaches. Through the BCS Program, CAM practitioners can submit specific types of evidence—such as medical records, medical imaging (e.g., x-ray or ultrasound films), and pathology reports—that they believe support a CAM treatment's therapeutic effect on a group of cancer patients. The data are evaluated using a panel approach. Currently, NCCAM plans to perform these reviews through a working group of its National Advisory Council on Complementary and Alternative Medicine (NACCAM). This will continue the work of the Cancer Advisory Panel for Complementary and Alternative Medicine (CAPCAM), whose charter was withdrawn in 2002 during a Federal reduction of chartered advisory committees. The BCS Web site is www3.cancer.gov/occam/bestcase.html.

"NCCAM is committed to exploring promising alternative approaches to treating cancer," Dr. Straus noted. "Supporting researchers who are using cutting-edge scientific tools to study CAM for cancer, one of America's greatest public health challenges, is a vital part of our work." ■

Notes

1. In imagery (also known as guided imagery or visualization), the patient imagines a calming or soothing image or experience, such as a favorite place. Focusing on all the sensory details of this experience helps the brain and body to relax.
2. Hyperbaric oxygen therapy is the use of oxygen at pressures greater than those found in the atmosphere to treat a variety of disorders.
3. Tumor angiogenesis is the growth of blood vessels from surrounding tissue to a solid tumor.
4. To find out more, see the NCCAM fact sheet "Acupuncture."

Sources

Arias E, Smith B. *Deaths: Preliminary Data for 2001*. National Center for Health Statistics Web site. Accessed at http://www.cdc.gov/nchs/data/nvsr/nvsr51/nvsr51_05.pdf on August 8, 2003.

American Cancer Society. *Facts & Figures 2003*. American Cancer Society Web site. Accessed at <http://www.cancer.org/downloads/stf/caff2003pwsecured.pdf> on August 8, 2003.

Richardson MA, Straus S. Complementary and alternative medicine: opportunities and challenges for cancer management and research. *Seminars in Oncology*. 2002;29(6):531-545.

Sparber A, Wootton J. Surveys of complementary and alternative medicine: Part II. Use of alternative and complementary cancer therapies. *Journal of Alternative and Complementary Medicine*. 2001;7(3): 281-287.

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NCCAM Clearinghouse: For information about NCCAM or any aspect of complementary and alternative medicine, contact the NCCAM Clearinghouse:

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Our mission: NCCAM is dedicated to exploring complementary and alternative healing practices in the context of rigorous science, training complementary and alternative medicine researchers, and disseminating authoritative information to the public and professionals.

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New Advisory Council Members Appointed

Five new appointments to NCCAM's principal advisory body, the National Advisory Council for Complementary and Alternative Medicine (NACCAM), have been announced by Health and Human Services Secretary Tommy G. Thompson:

- ▶ Deborah J. Cotton, M.D., M.P.H., an expert in AIDS research, is vice chairman for veterans affairs, Department of Medicine, Boston University School of Medicine, and professor of public health, Boston University School of Public Health, Boston, Massachusetts.
- ▶ Jonathan R.T. Davidson, M.D., a trained homeopath and expert in herbal medicines, is professor, Department of Psychiatry, and director, Anxiety and Traumatic Stress Program, Department of Psychiatry, Duke University Medical Center, Durham, North Carolina.
- ▶ Alan I. Leshner, Ph.D., an expert in behavioral and social science research, is chief executive officer, American Association for the Advancement of Science, Washington, D.C., and former director, National Institute on Drug Abuse, NIH.
- ▶ Tieraona Low Dog, M.D., a Native-American expert in traditional herbal medicine, is assistant professor, Department of Family and Community Medicine, and clinical assistant professor, Department of Family Medicine, University of New Mexico, Albuquerque, New Mexico.
- ▶ Larry A. Walker, Ph.D., an expert in the pharmacology and study of herbal products, is director, National Center for Natural Products Research, School of Pharmacy, University of Mississippi, Oxford, Mississippi.

In other NACCAM news, Council member Haile Debas, M.D., who is retiring this year as dean of the University of California-San Francisco School of Medicine, has been appointed to the United Nations Commission for HIV/AIDS and Governance in Africa. The commission has been formed to advise African governments on how best to combat the HIV/AIDS epidemic.

For more information on NACCAM, go to nccam.nih.gov/about/advisory/naccam. ■

New Report Issued on Vitamin Supplementation

In a report issued in June 2003, the U.S. Preventive Services Task Force (USPSTF) concluded that the scientific evidence is insufficient to recommend for or against the use of the following supplements to prevent cancer or heart disease: vitamins A, C, or E; multivitamins with folic acid; and antioxidant combinations. It also recommended against the use of beta-carotene supplements for the prevention of cancer or cardiovascular disease and found that beta-carotene supplements were associated with a higher risk for lung cancer and death in smokers.

Calendar of Events

This calendar lists events on complementary and alternative medicine (CAM) that are sponsored or organized by NCCAM or other components of NIH, and includes information available at press time. For more information, go to nccam.nih.gov or call the NCCAM meeting line at 301-594-9632.

OCTOBER 2003

Live Web Chat: October 7, 2 p.m.–3 p.m. ET. “CAM and Cancer: What You Should Know.” Speaker: Stephen E. Straus, M.D., NCCAM Director. Sponsors: NCCAM, the American Society of Clinical Oncology (ASCO), and *CancerCare*. Members of the public are invited to view or participate in this chat. To do so, go to www.plwc.org any time up to 15 minutes before the chat starts or during the chat. You will need to supply only a user name of your choice.

Distinguished Lectures in the Science of Complementary and Alternative Medicine: October 22, 12 noon. “Herbal Medicine: Ancient Practice Meets Modern Science.” Speaker: Norman R. Farnsworth, Ph.D., director, Program for Collaborative Research in the Pharmaceutical Sciences, University of Illinois at Chicago College of Pharmacy. Location: Masur Auditorium, NIH, Bethesda, Maryland.

Medicine for the Public: 2003 Lecture Series: October 28, 7 p.m. “Complementary and Alternative Medicine: From Promises to Proof.” Speaker: Stephen E. Straus, M.D., NCCAM Director. Location: Masur Auditorium, NIH, Bethesda, Maryland.

JANUARY 2004

Meeting of the National Advisory Council for Complementary and Alternative Medicine: January 30. Location: NIH Neuroscience Building, 6001 Executive Boulevard, Rockville, Maryland. For more information, go to nccam.nih.gov/about.

The USPSTF is an independent panel of experts in primary care and prevention that reviews evidence on topics in preventive health care and develops recommendations for the clinical setting. Its reports are distributed by the Agency for Healthcare Research and Quality, part of the U.S. Department of Health and Human Services.

For a copy of the report, go to ahrq.gov/clinic/3rduspstf/vitamins/vitaminsrr.htm or call 1-800-358-9295. The findings are also reported in the July 1, 2003, issue of the *Annals of Internal Medicine*. ■

Official Business

Penalty for Private Use \$300

NEWS FOR RESEARCHERS

Researchers should note that NCCAM is no longer accepting unsolicited Exploratory/Developmental Research Grant applications (R21). These applications must be submitted in response to a program announcement (PA) or request for applications. Currently, NCCAM offers two general R21 PAs (nccam.nih.gov/research/instructions/r21/index).

Research Funding Opportunities

Visit nccam.nih.gov/research/announcements for more information on these and other NCCAM funding opportunities.

- ▶ Program Announcement (PAR-03-153): **NCCAM Exploratory/Developmental Grant for Clinical Studies (R21)**. These awards are targeted to independent investigators conducting rigorous clinical feasibility and developmental projects that can eventually serve as a basis for planning and justifying larger clinical studies on CAM therapies.
- ▶ Program Announcement (PA-03-152): **Biobehavioral Pain Research**. Sponsors: NCCAM and nine other NIH Institutes and Centers. The award will support basic and clinical studies on the pain experience at all levels of research, from genetic to individual, with the goal of developing biobehavioral interventions to manage or prevent pain.
- ▶ Request for Applications (RFA HL-04-004): **Clinical Research Curriculum Award**. Sponsor: NIH. This award is to support institutions in providing a comprehensive curriculum on clinical research, for training researchers.
- ▶ Program Announcement (PA-02-103): Research on **Ethical Issues in Human Studies**. Sponsors: NCCAM and 20 other NIH Institutes, Centers, and Offices. This PA supports research addressing the ethical challenges of working with human participants in research, in order to inform and optimize protections for human participation. ■

OTHER INFORMATION

Agencies Act Against Dietary Supplement Fraud

Federal agencies are working, individually and in collaboration, against deceptive marketing about the benefits and safety of dietary supplements and other health-related products.

Recently:

- ▶ The Federal Trade Commission (FTC) and the Food and Drug Administration (FDA) took legal action against two companies promoting a dietary supplement called **Seasilver** for making claims of safety and benefits to health that are not supported by scientific evidence. Seasilver has been marketed as a treatment or cure for over 650 diseases, including AIDS and cancer, and for weight loss. Supplies of Seasilver were seized, and marketing was halted.
- ▶ The FTC and the FDA took similar action against companies and individuals marketing **Coral Calcium Supreme**, which has been advertised as a treatment for cancer, multiple sclerosis, lupus, heart disease, and high blood pressure—health claims that the agencies found to be false and deceptive. They ordered product advertising halted and issued warnings to Web site operators.

FDA Commissioner Mark McClellan, M.D., Ph.D., noted that his agency is taking “vigorous actions against firms that prey on consumers and patients by selling worthless dietary supplements as cures for serious and chronic diseases and conditions.” He added that using ineffective products may cause “irreparable harm” by causing consumers to avoid treatments that have actually been proven effective. More information is posted at www.fda.gov/opacom/hpwhats.html, www.ftc.gov/opa/2003/07/diethealth.htm, and www.ftc.gov/opa/2003/06/seasilver.htm. ■