

## Complementary and Alternative Medicine in Cancer Treatment: Questions and Answers

### Key Points

- Complementary and alternative medicine (CAM) is a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine (see Question 1).
- It is important that the same scientific evaluation that is used to assess conventional approaches be used to evaluate CAM therapies (see Question 3).
- The National Cancer Institute and the National Center for Complementary and Alternative Medicine are sponsoring or cosponsoring various clinical trials (research studies) to study CAM therapies for cancer (see Question 5).
- It is important that patients inform all of their health care providers about any therapies they are currently using or considering. This is to help ensure a safe and coordinated course of care (see Question 7).

### 1. What is complementary and alternative medicine?

Complementary and alternative medicine (CAM), as defined by the National Center for Complementary and Alternative Medicine (NCCAM), is a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine. Complementary medicine is used together with conventional medicine. Alternative medicine is used in place of conventional medicine. Conventional medicine is medicine as practiced by holders of M.D. (medical doctor) or D.O. (doctor of osteopathy) degrees and by their allied health professionals, such as physical therapists, psychologists, and registered nurses. Other terms for conventional medicine include allopathy; Western, mainstream, orthodox, and regular medicine; and biomedicine. Some conventional medical practitioners are also practitioners of CAM.

This fact sheet answers some frequently asked questions about the use of CAM therapies among the general public, and about how CAM approaches are evaluated, and suggests sources for further information.

### 2. Are complementary and alternative therapies widely used?

The results of studies of CAM use have been inconsistent. One large-scale study published in the November 11, 1998, issue of the *Journal of the American Medical Association* found that CAM use among the general public increased from 33.8 percent in 1990 to 42.1 percent in 1997. However, an analysis of data from the 1999 National Health Interview Survey indicated that only 28.9 percent of U.S. adults (age 18 and over) had used at least one CAM therapy in the past year. These results were published in the journal *Medical Care* in 2002.

Several surveys of CAM use by cancer patients have been conducted with small numbers of patients. One study published in the February 2000 issue of the journal *Cancer* reported that 37 percent of 46 patients with prostate cancer used one or more CAM therapies as part of their cancer treatment. These therapies included herbal remedies, vitamins, and special diets.

A larger study of CAM use in patients with different types of cancer was published in the July 2000 issue of the *Journal of Clinical Oncology*. This study found that 69 percent of 453 cancer patients had



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used at least one CAM therapy as part of their cancer treatment. Additional information about CAM use among cancer patients can be found in a review article published in *Seminars in Oncology* in December 2002.

### **3. How are CAM approaches evaluated?**

It is important that the same rigorous scientific evaluation used to assess conventional approaches be used to evaluate CAM therapies. The National Cancer Institute (NCI) and NCCAM are funding a number of clinical trials (research studies) at medical centers to evaluate CAM therapies for cancer.

Conventional approaches to cancer treatment have generally been studied for safety and effectiveness through a rigorous scientific process that includes clinical trials with large numbers of patients. Less is known about the safety and effectiveness of complementary and alternative methods. Some CAM therapies have undergone rigorous evaluation. A small number of CAM therapies originally considered to be purely alternative approaches are finding a place in cancer treatment—not as cures, but as complementary therapies that may help patients feel better and recover faster. One example is acupuncture. According to a panel of experts at a National Institutes of Health (NIH) Consensus Conference in November 1997, acupuncture has been found to be effective in the management of chemotherapy-associated nausea and vomiting and in controlling pain associated with surgery. In contrast, some approaches, such as the use of laetrile, have been studied and found ineffective or potentially harmful.

### **4. What is the Best Case Series Program?**

The Best Case Series Program, which was started by the NCI in 1991, is one way CAM approaches that are being used in practice are being evaluated. The program is overseen by the NCI's Office of Cancer Complementary and Alternative Medicine (OCCAM). Health care professionals who offer CAM services submit their patients' medical records and related materials to OCCAM. OCCAM conducts a critical review of the materials and develops follow-up research strategies for approaches that have therapeutic potential.

### **5. Are the NCI and NCCAM sponsoring clinical trials in complementary and alternative medicine?**

The NCI and NCCAM are currently sponsoring or cosponsoring various clinical trials to study complementary and alternative treatments for cancer. Some of these trials study the effects of complementary approaches used in addition to conventional treatments, while others compare alternative therapies with conventional treatments. Current trials include the following:

- Acupuncture to reduce the symptoms of advanced colorectal cancer
- Combination chemotherapy plus radiation therapy with or without shark cartilage in the treatment of patients who have non-small cell lung cancer that cannot be removed by surgery
- Hyperbaric oxygen therapy with laryngectomy patients (people who have had an operation to remove all or part of the larynx (voice box))
- Massage therapy for cancer-related fatigue
- Chemotherapy compared with pancreatic enzyme therapy plus specialized diet for the treatment of pancreatic cancer
- Mistletoe extract and chemotherapy for the treatment of solid tumors

Patients who are interested in taking part in these or any clinical trials should talk with their doctor.

The NCI, NCCAM, and OCCAM clinical trials databases offer patients, family members, and health professionals information about research studies that use CAM. Clinical trials can be found by searching:

- The NCI's PDQ® Clinical Trials Database—The PDQ Clinical Trials database can be searched at <http://www.cancer.gov/clinicaltrials/> using such criteria as cancer type, type of trial, geographic region, trial sponsorship, and/or drug name. This information is also available by calling the NCI's Cancer Information Service (see below).
- The NCCAM Clinical Trials Web page—Clinical trials can be searched by type of treatment or disease at <http://nccam.nih.gov/research/clinicaltrials/> on the Internet.
- The OCCAM Clinical Trials Web page—Links are provided to the NCI's clinical trials databases at [http://www.cancer.gov/cam/clinicaltrials\\_intro.html](http://www.cancer.gov/cam/clinicaltrials_intro.html) on the Internet.

**6. What should patients do when using or considering complementary and alternative therapies?**

Cancer patients using or considering complementary or alternative therapy should discuss this decision with their doctor or nurse, as they would any therapeutic approach. Some complementary and alternative therapies may interfere with standard treatment or may be harmful when used with conventional treatment. It is also a good idea to become informed about the therapy, including whether the results of scientific studies support the claims that are made for it. Some resources for this information are provided in Question 8.

**7. When considering complementary and alternative therapies, what questions should patients ask their health care providers?**

- What benefits can be expected from this therapy?
- What are the risks associated with this therapy?
- Do the known benefits outweigh the risks?
- What side effects can be expected?
- Will the therapy interfere with conventional treatment?
- Is this therapy part of a clinical trial? If so, who is sponsoring the trial?
- Will the therapy be covered by health insurance?

Further information on evaluating CAM therapies and practitioners is available from NCCAM (see below).

**8. What Federal agencies can provide more information about CAM therapies?**

Patients, their families, and their health care providers can learn about CAM therapies from the following Government agencies and resources:

**NCCAM** is the Federal Government's lead agency for scientific research on CAM. NCCAM is dedicated to exploring complementary and alternative healing practices in the context of rigorous science, training CAM researchers, and disseminating authoritative information to the public and professionals.

The NCCAM Clearinghouse provides information on NCCAM and on CAM, including fact sheets, other publications, and searches of Federal databases of scientific and medical literature. Publications include:

- "Are You Considering Using Complementary and Alternative Medicine (CAM)?" (<http://nccam.nih.gov/health/decisions/consideringcam.htm>)
- "Selecting a Complementary and Alternative Medicine Practitioner" (<http://nccam.nih.gov/health/decisions/practitioner.htm>)
- "Paying for Complementary and Alternative Medicine Treatment" (<http://nccam.nih.gov/health/financial/index.htm>)

The Clearinghouse does not provide medical advice, treatment recommendations, or referrals to practitioners.

NCCAM Clearinghouse  
Post Office Box 7923  
Gaithersburg, MD 20898-7923  
Toll-free in the United States: 1-888-644-6226  
Callers with TTY equipment: 1-866-464-3615  
Fax: 1-866-464-3616  
E-mail: [info@nccam.nih.gov](mailto:info@nccam.nih.gov)  
Web site: <http://nccam.nih.gov>

The NCI's **Office of Cancer Complementary and Alternative Medicine (OCCAM)** coordinates the activities of the NCI in the area of complementary and alternative medicine. OCCAM supports CAM cancer research and provides information about cancer-related CAM to health providers and the general public via <http://www.cancer.gov/cam/> on the Internet.

NCI's **PDQ**, a comprehensive cancer information database, contains peer-reviewed summaries of the latest information about the use of CAM in the treatment of cancer. Each summary contains background information about the specific treatment, a brief history of its development, information about relevant research studies, and a glossary of scientific and medical terms. CAM summaries can be accessed at <http://www.cancer.gov/cancerinfo/pdq/cam> on the Internet.

The **Food and Drug Administration (FDA)** regulates drugs and medical devices to ensure that they are safe and effective. This agency provides a number of publications for consumers, including information about dietary supplements.

Food and Drug Administration  
5600 Fishers Lane  
Rockville, MD 20857

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

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

FDA's Dietary Supplements Web page: <http://www.fda.gov/Food/DietarySupplements/default.htm>

The **Federal Trade Commission (FTC)** enforces consumer protection laws and offers publications to guide consumers. The FTC also collects information about fraudulent claims.

Consumer Response Center  
Federal Trade Commission  
600 Pennsylvania Avenue, NW. H-130  
Washington, DC 20580

Telephone: 1-877-382-4357 (1-877-FTC-HELP) (toll-free)

Callers with TTY equipment: 202-326-2502

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

**CAM on PubMed®**, a database accessible via the Internet, was developed jointly by NCCAM and the NIH National Library of Medicine (NLM). It contains bibliographic citations (from 1966 to the present) for articles in scientifically based, peer-reviewed journals on CAM. These citations are a subset of the NLM's PubMed system, which contains over 11 million journal citations from the MEDLINE® database and additional life science journals important to health researchers, practitioners, and consumers. CAM on PubMed also displays links to many publisher Web sites, which may offer the full text of articles. To access CAM on PubMed, go to <http://nccam.nih.gov/camonpubmed/> on the Internet.

**MedlinePlus®**, a tool provided by the NLM, is a searchable database of health information. The Drug, Supplements, and Herbal Information section has extensive information about dietary and herbal supplements, as well as drugs. This resource is available at <http://www.nlm.nih.gov/medlineplus/druginformation.html> on the Internet.

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#### Related NCI materials and Web pages:

- *Thinking About Complementary and Alternative Medicine—A Guide for People With Cancer* (<http://www.cancer.gov/cancertopics/thinking-about-CAM>)

#### How can we help?

We offer comprehensive research-based information for patients and their families, health professionals, cancer researchers, advocates, and the public.

- **Call** NCI's Cancer Information Service at 1–800–4–CANCER (1–800–422–6237)
- **Visit** us at <http://www.cancer.gov> or <http://www.cancer.gov/espanol>
- **Chat** using LiveHelp, NCI's instant messaging service, at <http://www.cancer.gov/livehelp>
- **E-mail** us at [cancergovstaff@mail.nih.gov](mailto:cancergovstaff@mail.nih.gov)
- **Order** publications at <http://www.cancer.gov/publications> or by calling 1–800–4–CANCER
- **Get help** with quitting smoking at 1–877–44U–QUIT (1–877–448–7848)

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