

Acupuncture (PDQ®)–Patient Version

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Overview

- Acupuncture applies needles, heat, pressure, and other treatments to one or more places on the skin known as acupuncture points (see [Question 1](#)).
- Clinical trials report the use of acupuncture relieves nausea and vomiting from anticancer therapies (see [Question 5](#)).
- Other trials have studied the use of acupuncture in cancer treatment to relieve symptoms such as fatigue, dry mouth and hot flashes (see [Question 5](#)).
- A strict clean needle method must be used when acupuncture treatment is given to cancer patients (see [Question 6](#) and [Question 7](#)).

Questions and Answers About Acupuncture

1. What is acupuncture?

Acupuncture applies needles, heat, pressure, and other treatments to places on the skin, called acupuncture points (or acupoints), to control symptoms such as pain or nausea and vomiting. Acupuncture is part of traditional Chinese medicine (TCM). TCM uses acupuncture, diet, herbal therapy, meditation, exercise, and massage to restore health.

Acupuncture is based on the belief that qi (vital energy) flows through the body along paths, called meridians. Qi is said to affect a person’s spiritual, emotional, mental, and physical condition.

2. How is acupuncture given?

Most acupuncture methods use needles. Disposable, stainless steel needles that are slightly thicker than a human hair are inserted into the skin at acupoints. The acupuncture practitioner chooses the correct acupoints for the problem being treated. The inserted needles may be twirled, moved up and down at different speeds and depths, heated, or charged with a weak electric current.

Acupuncture methods include the following:

- Auricular acupuncture: Acupuncture needles are placed at acupoints on the outer ear that match up with certain parts of the body.
- Electroacupuncture.
- Trigger point acupuncture.

- Laser acupuncture.
- Acupuncture point injection.
- Microwave acupuncture.
- Acupressure.
- Moxibustion.
- Cupping.

3. What do patients feel during acupuncture?

Patients may have a needling feeling during acupuncture, known as de qi sensation, making them feel heaviness, numbness, or tingling.

4. Have any laboratory or animal studies been done using acupuncture?

In laboratory studies, tumor samples are used to test a new treatment and find out if it is likely to have any anticancer effects. In animal studies, tests are done to see if a drug, procedure, or treatment is safe and effective in animals. Laboratory and animal studies are done before a treatment is tested in people.

Laboratory and animal studies have tested the effects of acupuncture. See the [Laboratory/Animal/Preclinical Studies](#) section of the health professional version of [Acupuncture](#) for information on laboratory and animal studies.

5. Have any studies been done in people?

In 1997, the National Institutes of Health (NIH) began looking at how well acupuncture worked as a complementary therapy for cancer-related symptoms and side effects of cancer treatments. Studies of acupuncture in cancer care also have been done in China and other countries.

• Nausea and vomiting caused by chemotherapy, surgery, and radiation therapy

The strongest evidence for acupuncture has come from clinical trials on the use of acupuncture to relieve nausea and vomiting.

- A 2013 review that included 41 randomized controlled trials found that acupuncture helped treat nausea and vomiting caused by chemotherapy.
- Another review from 11 randomized clinical trials, found that fewer chemotherapy patients in the acupuncture groups had acute vomiting compared to the control group.
- A comparison of studies suggests that the specific acupuncture point used may make a difference in how well acupuncture works to relieve nausea caused by chemotherapy.
- Patients who received either true acupuncture or sham acupuncture were compared to patients who received only standard care to prevent nausea and vomiting from radiation therapy. The study found that patients in both the true and sham acupuncture groups had less nausea and vomiting than those in the standard care group.
- In a 2016 randomized clinical trial of auricular acupressure in 48 breast cancer patients treated with chemotherapy, patients who received auricular acupressure had less intense and less

frequent nausea and vomiting compared with those who did not have auricular acupressure. These findings are limited since the study had a small number of patients and no placebo group.

- **Pain**

Acupuncture has been studied to help relieve pain in cancer patients. The results are mixed due to small sample sizes and design problems.

- **Cancer pain**

In one review, acupuncture reduced cancer pain in some patients with various cancers, although the studies were small. Another review concluded acupuncture with pain medicine worked better than the pain medicine alone. This review was limited by poor quality of clinical trials.

- **Postoperative pain**

In several randomized clinical trials on pain after surgery, acupuncture reduced the pain, but sample sizes were small and additional treatments were unknown. Some studies reported that when acupuncture was used with standard care, pain relief was better.

In two randomized clinical trials in patients having a bone marrow aspiration and biopsy, acupressure was found to relieve pain and anxiety compared to sham acupressure.

- **Muscle and joint pain from aromatase inhibitors**

Aromatase inhibitors, a type of hormone therapy for postmenopausal women who have hormone-dependent breast cancer, may cause muscle and joint pain.

- Five randomized controlled trials compared the effects of real and sham acupuncture in reducing pain. All five trials showed no side effects from either real acupuncture or sham acupuncture. Two trials showed real acupuncture was better than sham acupuncture in relieving joint and muscle pain, but the other three trials did not. In two of the studies, patients receiving real acupuncture had more pain relief than a control group of patients who were waiting to receive treatment later.
- Observational studies have also reported both real acupuncture and sham acupuncture may relieve pain more than standard care.
- A review of 17,922 patients reported that real acupuncture relieved pain better than sham acupuncture.

- **Peripheral neuropathy**

Several small studies have been done on the use of acupuncture in treating peripheral neuropathy caused by chemotherapy or other anticancer drugs. Most of these studies found acupuncture decreased pain and improved nerve function. A randomized controlled trial, however, found that acupuncture did not work better than a placebo.

- **Hot flashes**

Hormone therapy may cause hot flashes in women with breast cancer and men with prostate cancer. Studies of the use of acupuncture to relieve hot flashes have shown mixed results.

- Six randomized clinical trials studied the use of acupuncture to prevent hot flashes in breast cancer survivors. These trials found that acupuncture was safe and decreased hot flashes. It was not clear whether real acupuncture worked better than sham acupuncture.
- A 2015 randomized trial of electroacupuncture in breast cancer survivors with hot flashes had four groups for treatment: electroacupuncture, sham acupuncture, gabapentin, and placebo. The trial looked at how well sham acupuncture worked compared to the placebo and compared hot flash relief in all groups. The study found that sham acupuncture worked better than gabapentin or the placebo, and both electroacupuncture and sham acupuncture gave better relief than gabapentin.
- A 2016 randomized trial compared acupuncture plus self-care (as described in an information booklet provided to all patients) to self-care alone in breast cancer survivors. The study found that adding acupuncture reduced hot flashes after 12 weeks of treatment and at the 3- and 6-month follow-up visits. The study also found that acupuncture improved the patients' quality of life.
- A 2016 review of 12 randomized trials in breast cancer survivors with hot flashes included 6 studies that compared real acupuncture with sham acupuncture. Of these, only 2 studies found that real acupuncture had a benefit compared with the sham treatment. The other studies found that acupuncture was no better than hormone therapy, venlafaxine, or relaxation therapy in relieving hot flashes.
- Some studies have reported that acupuncture may relieve hot flashes in prostate cancer patients on androgen-deprivation therapy.

- **Fatigue**

Fatigue is a common symptom in patients with cancer and a frequent side effect of chemotherapy and radiation therapy.

- Several randomized clinical trials have studied the use of acupuncture in reducing cancer-related fatigue. These trials found that acupuncture improved fatigue when compared to standard care alone. It is not clear whether real acupuncture works better than sham acupuncture.
- A 2016 randomized clinical trial of 78 cancer survivors with cancer-related fatigue showed that infrared laser acupuncture used on certain acupoints was safe in cancer patients. Patients who received infrared laser acupuncture 3 times per week for 4 weeks had less fatigue than those who received sham treatment.

- **Dry mouth (xerostomia)**

Several clinical trials have studied the effect of acupuncture in the treatment and prevention of xerostomia (dry mouth) caused by radiation therapy in patients with nasopharyngeal carcinoma and head and neck cancer.

- In studies that compared acupuncture with standard care for preventing dry mouth in patients being treated with radiation therapy, patients treated with acupuncture during radiation therapy had fewer symptoms and better saliva flow.
- Two randomized controlled trials compared real and sham acupuncture for the prevention and treatment of dry mouth. These trials found that both real and sham acupuncture increased the flow of saliva.
- A study on the long-term effects of acupuncture on dry mouth found that patients had better saliva flow at 6 months compared to before treatment. Patients who received additional acupuncture had more saliva flow at 3 years compared to patients who did not continue acupuncture treatment.

Other trials are ongoing.

• **Lymphedema**

There have been a number of case reports and studies that show acupuncture is safe and may decrease swelling and relieve symptoms in patients with lymphedema in the arms and legs.

- In one randomized clinical trial, acupuncture was found to keep lymphedema from getting worse but did not decrease swelling or symptoms.
- In a 2016 study, 23 breast and head and neck cancer patients with lymphedema who had acupuncture and moxibustion treatments reported improved levels of energy and decreased pain.
- In a 2016 randomized clinical trial of 30 breast cancer patients with lymphedema, about half of those treated with warm acupuncture (acupuncture and moxibustion) had improved symptoms of lymphedema. About one-fourth of the control group (drug therapy) had improved symptoms. The acupuncture and moxibustion group also had improved shoulder joint range of motion and quality of life compared with the control group.
- A randomized clinical trial of 82 breast cancer patients with lymphedema found no significant difference in symptoms in patients treated with acupuncture compared with the control group.

• **Ileus**

After cancer surgery, some patients develop ileus. Randomized clinical trials that studied acupuncture for ileus had mixed results.

• **Sleep problems**

A study that compared acupuncture with fluoxetine found that acupuncture worked better in relieving depression and improving sleep. Another study found that acupuncture improved sleep slightly better than standard care.

• **The immune system**

Studies that suggest acupuncture may improve the immune system are limited.

- **Other symptoms of cancer and side effects of cancer treatment**

Other clinical trials in cancer patients have studied the effects of acupuncture on cancer symptoms and side effects caused by cancer treatment, including weight loss, cough, coughing up blood, fever, anxiety, depression, proctitis, speech problems, blocked esophagus, and hiccups. Studies have shown that treatment with acupuncture either relieves symptoms or keeps them from getting worse.

6. Have any side effects or risks been reported from acupuncture?

There have been few complications reported. Problems are caused by using needles that are not sterile and from placing the needle in the wrong place, movement of the patient, or a defect in the needle.

Problems include the following:

- Feeling soreness and pain during treatment.
- Feeling tired, lightheaded, or sleepy.
- Getting an infection.

A strict clean needle method must be used when acupuncture treatment is given to cancer patients, because chemotherapy and radiation therapy weaken the body's immune system.

7. Is acupuncture approved by the US Food and Drug Administration (FDA)?

The FDA approved acupuncture needles for use by licensed practitioners in 1996. The FDA requires that sterile needles be used and labeled for single use by qualified practitioners only.

More than 40 states and the District of Columbia have laws about acupuncture practice. The National Certification Commission for Acupuncture and Oriental Medicine (www.nccaom.org) certifies practitioners of acupuncture and traditional Chinese medicine (TCM). Most states require this certification.

Current Clinical Trials

Use our [clinical trial search](#) to find NCI-supported cancer clinical trials that are accepting patients. You can search for trials based on the type of cancer, the age of the patient, and where the trials are being done. [General information](#) about clinical trials is also available.

About This PDQ Summary

About PDQ

Physician Data Query (PDQ) is the National Cancer Institute's (NCI's) comprehensive cancer information database. The PDQ database contains summaries of the latest published information on cancer prevention,

detection, genetics, treatment, supportive care, and complementary and alternative medicine. Most summaries come in two versions. The health professional versions have detailed information written in technical language. The patient versions are written in easy-to-understand, nontechnical language. Both versions have cancer information that is accurate and up to date and most versions are also available in [Spanish](#).

PDQ is a service of the NCI. The NCI is part of the National Institutes of Health (NIH). NIH is the federal government's center of biomedical research. The PDQ summaries are based on an independent review of the medical literature. They are not policy statements of the NCI or the NIH.

Purpose of This Summary

This PDQ cancer information summary has current information about the use of acupuncture in the treatment of people with cancer. It is meant to inform and help patients, families, and caregivers. It does not give formal guidelines or recommendations for making decisions about health care.

Reviewers and Updates

Editorial Boards write the PDQ cancer information summaries and keep them up to date. These Boards are made up of experts in cancer treatment and other specialties related to cancer. The summaries are reviewed regularly and changes are made when there is new information. The date on each summary ("Updated") is the date of the most recent change.

The information in this patient summary was taken from the health professional version, which is reviewed regularly and updated as needed, by the [PDQ Integrative, Alternative, and Complementary Therapies Editorial Board](#).

Clinical Trial Information

A clinical trial is a study to answer a scientific question, such as whether one treatment is better than another. Trials are based on past studies and what has been learned in the laboratory. Each trial answers certain scientific questions in order to find new and better ways to help cancer patients. During treatment clinical trials, information is collected about the effects of a new treatment and how well it works. If a clinical trial shows that a new treatment is better than one currently being used, the new treatment may become "standard." Patients may want to think about taking part in a clinical trial. Some clinical trials are open only to patients who have not started treatment.

Clinical trials can be found online at [NCI's website](#). For more information, call the [Cancer Information Service \(CIS\)](#), NCI's contact center, at 1-800-4-CANCER (1-800-422-6237).

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Disclaimer

The information in these summaries should not be used to make decisions about insurance reimbursement. More information on insurance coverage is available on Cancer.gov on the [Managing Cancer Care](#) page.

Contact Us

More information about contacting us or receiving help with the Cancer.gov website can be found on our [Contact Us for Help](#) page. Questions can also be submitted to Cancer.gov through the website's [E-mail Us](#).

General CAM Information

Complementary and alternative medicine (CAM)—also called integrative medicine—includes a broad range of healing philosophies, approaches, and therapies. A therapy is generally called complementary when it is used in addition to conventional treatments; it is often called alternative when it is used instead of conventional treatment. (Conventional treatments are those that are widely accepted and practiced by the mainstream medical community.) Depending on how they are used, some therapies can be considered either complementary or alternative. Complementary and alternative therapies are used in an effort to prevent illness, reduce stress, prevent or reduce side effects and symptoms, or control or cure disease.

Unlike conventional treatments for cancer, complementary and alternative therapies are often not covered by insurance companies. Patients should check with their insurance provider to find out about coverage for complementary and alternative therapies.

Cancer patients considering complementary and alternative therapies should discuss this decision with their doctor, nurse, or pharmacist as they would any type of treatment. Some complementary and alternative therapies may affect their standard treatment or may be harmful when used with conventional treatment.

Evaluation of CAM Therapies

It is important that the same scientific methods used to test conventional therapies are used to test CAM therapies. The National Cancer Institute and the National Center for Complementary and Integrative Health (NCCIH) are sponsoring a number of clinical trials (research studies) at medical centers to test CAM therapies for use in cancer.

Conventional approaches to cancer treatment have generally been studied for safety and effectiveness through a scientific process that includes clinical trials with large numbers of patients. Less is known about the safety and effectiveness of complementary and alternative methods. Few CAM therapies have been tested using demanding scientific methods. A small number of CAM therapies that were thought to be purely alternative approaches are now being used 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) meeting in November 1997, acupuncture has been found to help control nausea and vomiting caused by chemotherapy and pain related to surgery. However, some approaches, such as the use of laetrile, have been studied and found not to work and to possibly cause harm.

[The NCI Best Case Series Program](#) which was started in 1991, is one way CAM approaches that are being used in practice are being studied. The program is overseen by the NCI's Office of Cancer Complementary and Alternative Medicine (OCCAM). Health care professionals who offer alternative cancer therapies submit their patients' medical records and related materials to OCCAM. OCCAM carefully reviews these materials to see if any seem worth further research.

Questions to Ask Your Health Care Provider About CAM

When considering complementary and alternative therapies, patients should ask their health care provider the following questions:

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

To Learn More About CAM

National Center for Complementary and Integrative Health (NCCIH)

The National Center for Complementary and Integrative Health (NCCIH) at the National Institutes of Health (NIH) facilitates research and evaluation of complementary and alternative practices, and provides information about a variety of approaches to health professionals and the public.

NCCIH Clearinghouse

Post Office Box 7923 Gaithersburg, MD 20898-7923

Telephone: 1-888-644-6226 (toll free)

TTY (for deaf and hard of hearing callers): 1-866-464-3615

E-mail: info@nccih.nih.gov

Website: <https://nccih.nih.gov>

CAM on PubMed

NCCIH and the NIH National Library of Medicine (NLM) jointly developed [CAM on PubMed](#), a free and easy-to-use search tool for finding CAM-related journal citations. As a subset of the NLM's PubMed bibliographic database, CAM on PubMed features more than 230,000 references and abstracts for CAM-related articles from scientific journals. This database also provides links to the websites of over 1,800 journals, allowing users to view full-text articles. (A subscription or other fee may be required to access full-text articles.)

Office of Cancer Complementary and Alternative Medicine

The NCI Office of Cancer Complementary and Alternative Medicine (OCCAM) coordinates the activities of the NCI in the area of complementary and alternative medicine (CAM). OCCAM supports CAM cancer research and provides information about cancer-related CAM to health providers and the general public via the [NCI website](#).

National Cancer Institute (NCI) Cancer Information Service

U.S. residents may call the [Cancer Information Service](#) (CIS), NCI's contact center, toll free at 1-800-4-CANCER (1-800-422-6237) Monday through Friday from 9:00 am to 9:00 pm. A trained Cancer Information Specialist is available to answer your questions.

Food and Drug Administration

The Food and Drug Administration (FDA) regulates drugs and medical devices to ensure that they are safe and effective.

Food and Drug Administration

10903 New Hampshire Avenue

Silver Spring, MD 20993

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

Website: <http://www.fda.gov>

Federal Trade Commission

The Federal Trade Commission (FTC) enforces consumer protection laws. Publications available from the FTC include:

- *Who Cares: Sources of Information About Health Care Products and Services*
- *Fraudulent Health Claims: Don't Be Fooled*

Consumer Response Center

Federal Trade Commission

600 Pennsylvania Avenue, NW

Washington, DC 20580

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

TTY (for deaf and hard of hearing callers): 202-326-2502

Website: <http://www.ftc.gov>

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