

Questions and Answers About Acupuncture

1. What is acupuncture?

Acupuncture applies needles, heat, pressure, and other treatments to certain places on the skin to cause a change in the physical functions of the body. The use of acupuncture is part of traditional Chinese medicine (TCM). TCM is a medical system that has been used for thousands of years to prevent, diagnose, and treat disease.

Acupuncture is based on the belief that qi (vital energy) flows through the body along a network of paths, called meridians. Qi is said to affect a person's spiritual, emotional, mental, and physical condition. According to TCM, qi has two forces, yin and yang. Yin and yang are opposite forces that work together to form a whole. The forces of yin and yang depend on each other and are made from each other in an unending cycle, such as hot and cold, day and night, and health and disease. Nothing is ever all yin or all yang, both exist in all things, including people. Many of the major organs of the body are believed to be yin-yang pairs that must be in balance to be healthy. When a person's yin and yang are not in balance, qi can become blocked. Blocked qi causes pain, illness, or other health problems. TCM uses acupuncture, diet, herbal therapy, meditation, physical exercise, and massage to restore health by unblocking qi and correcting the balance of yin and yang within the person.

Most acupuncturists in the United States practice acupuncture according to the traditions of Chinese medicine. However, there are other types of acupuncture, including some used for medical treatment, that have different theories about meridians and acupoint locations.

2. What is the history of the discovery and use of acupuncture as a complementary and alternative treatment for cancer?

The oldest medical book known, written in China 4000 years ago, describes the use of acupuncture to treat medical problems. The use of the treatment spread to other Asian countries and to other regions of the world, including to Europe by the 1700s. In the United States, acupuncture has been used for about 200 years.

Research on acupuncture began in the United States in 1976. Twenty years later, the US Food and Drug Administration (FDA) approved the acupuncture needle as a medical device. Many illnesses are treated with acupuncture, but it is used mainly to control pain, including pain in cancer patients and to help control nausea and vomiting. Its primary use in cancer patients has been as an addition to conventional (standard) therapy.

3. What is the theory behind the claim that acupuncture is useful in treating cancer?

According to TCM, qi can be unblocked by using acupuncture at certain places on the skin, called acupoints. Acupoints are places where the meridians come to the surface of the body. There are more than 2,000 acupoints on the human body, with specific acupoints for each condition being treated.

4. What physical effects may acupuncture have when used in cancer patients?

Acupuncture may cause physical responses in nerve cells, the pituitary gland, and parts of the brain. These responses can cause the body to release proteins, hormones, and brain chemicals that control a number of body functions. It is proposed that, in this way, acupuncture affects blood pressure and body temperature, boosts immune system activity, and causes the body's natural painkillers, such as endorphins, to be released.

5. How is acupuncture administered?

The acupuncture method most well-known uses needles. Disposable, stainless steel needles that are slightly thicker than a human hair are inserted into the skin at acupoints. The acupuncture practitioner determines the correct acupoints to use 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. There are other acupuncture methods that do not use needles.

Some acupuncture techniques include the following:

Electroacupuncture: A procedure in which pulses of weak electrical current are sent through acupuncture needles into acupoints in the skin.

Trigger point acupuncture: The placing of acupuncture needles in a place on the skin that is away from the painful part of the body. Trigger points have to do with referred pain, pain that is not felt at the site of injury, but is sent along nerves and felt elsewhere in the body.

Laser acupuncture: The use of a weak laser beam instead of an acupuncture needle to stimulate an acupoint.

Acupuncture point injection: The use of a syringe and needle to inject drugs, vitamins, herbal extracts, or other fluids into the body at an acupoint.

Microwave acupuncture: The use of a microwave device attached to an acupuncture needle to deliver microwave radiation to an acupoint.

Acupressure: A type of massage therapy in which the fingers are used to press on an acupoint. In cancer patients, acupressure has been used to control symptoms such as pain or nausea and vomiting.

Moxibustion: A type of heat therapy in which an herb is burned above the body to warm a meridian at an acupoint and increase the flow of blood and qi. The herb may be placed directly on the skin, held close to the skin for several minutes, or placed on the tip of an acupuncture needle.

Cupping: A procedure in which a rounded glass cup is warmed and placed upside down over an area of the body, making a vacuum that holds the cup to the skin. Cupping is used to increase the flow of blood and qi. It is believed to open up the skin's pores and allow toxins to leave the body.

6. Have any preclinical (laboratory or animal) studies been conducted using acupuncture?

Scientific studies on the use of acupuncture to treat cancer and side effects of cancer began only recently. Laboratory and animal studies suggest that acupuncture can reduce vomiting caused by chemotherapy and may help the immune system be stronger during chemotherapy. Animal studies support the use of electroacupuncture to relieve cancer pain. Laboratory and animal studies have also looked at how acupuncture works for cancer treatment, such as the role of acupuncture in stimulating immune functions, including increasing blood cell count and enhancing lymphocyte and natural killer cell activity.

7. Have any clinical trials (research studies with people) of acupuncture been conducted?

Most studies of the use of acupuncture in cancer patients have been done in China. In 1997, the National Institutes of Health (NIH) began evaluating the safety and effectiveness of acupuncture as a complementary and alternative therapy.

Studies of the effect of acupuncture on the immune system

Human studies on the effect of acupuncture have shown that it changes immune system response.

Studies of the effect of acupuncture on pain

In clinical studies, acupuncture reduced the amount of pain in some cancer patients. In one study, most of the patients treated with acupuncture were able to stop taking drugs for pain relief or to take smaller doses. The findings from these studies are not considered strong, however, because of weaknesses in study design and size. Studies using strict scientific methods are needed to prove how acupuncture affects pain.

Studies of the effect of acupuncture on 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. A randomized study found that true acupuncture was much more effective in relieving joint pain and stiffness than sham (inactive) acupuncture in patients taking aromatase inhibitors.

Studies of the effect of acupuncture on nausea and vomiting caused by cancer therapies

The strongest evidence of the effect of acupuncture has come from clinical trials on the use of acupuncture to relieve nausea and vomiting. Several types of clinical trials using different acupuncture methods showed acupuncture reduced nausea and vomiting caused by chemotherapy, surgery, and morning sickness. It appears to be more effective in preventing vomiting than in reducing nausea.

A study of acupuncture, vitamin B6 injections, or both for nausea and vomiting in patients treated with chemotherapy for ovarian cancer found that acupuncture and vitamin B6 together gave more relief from vomiting than acupuncture or vitamin B6 alone.

A study of acupressure for relief of nausea and vomiting was done in women undergoing chemotherapy. The study found that acupressure applied to an acupuncture point with a wristband helped to decrease nausea and vomiting and reduced the amount of medicine the women used for those symptoms.

A study of acupuncture for relief of nausea and vomiting was done in patients undergoing radiation therapy. Patients who received either true acupuncture or sham acupuncture were compared to patients who received standard care. The study found that patients in both the true and sham acupuncture groups developed less nausea and vomiting than those in the standard care group.

Studies of the effect of acupuncture on hot flashes in patients treated for cancer

Hormone therapy may cause hot flashes in women with breast cancer and men with prostate cancer. Some studies have shown that acupuncture may be effective in relieving hot flashes in these patients.

Study of the effect of acupuncture on fatigue in patients treated for cancer

A randomized study of patients with cancer-related fatigue found that those who had a series of acupuncture treatments had less fatigue compared to those who had acupressure or sham acupressure treatments.

Studies of the effect of acupuncture on cancer symptoms (other than nausea) and side effects of cancer treatment

The aim of most acupuncture clinical observation and clinical trials in cancer patients has been to study the effects of acupuncture on cancer symptoms and side effects caused by cancer treatment, including weight loss, cough, coughing up blood, anxiety, depression, dry mouth, proctitis, speech problems, blocked esophagus, hiccups, and fluid in the arms or legs. Studies have shown that, for many patients, treatment with acupuncture either relieves symptoms or keeps them from getting worse.

8. 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 (free of germs) and from placing the needle in the wrong place, movement of the patient, or a defect in the needle. Problems include soreness and pain during treatment; feeling tired, lightheaded, or sleepy; and infections. Because chemotherapy and radiation therapy weaken the body's immune system, a strict clean needle method must be used when acupuncture treatment is given to cancer patients. It is important to seek treatment from a qualified acupuncture practitioner who uses a new set of disposable (single-use) needles for each patient.

9. Is acupuncture approved by the US Food and Drug Administration (FDA) for use as a cancer treatment in the United States?

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

More than 40 states and the District of Columbia have laws regulating acupuncture practice (see www.acufinder.com for an online database of licensed acupuncture providers). 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.