

Complementary and Alternative Medicine

Perhaps you have seen a bottle of an herbal medicine in the drugstore and wondered if it might help get rid of your cold. Or you have thought about going to a chiropractor (KEYE-ruh-PRAK-tur) to treat your back pain. If so, you are not alone. Every year, millions of Americans try some form of complementary and alternative medicine—practices and products that are different from those normally used by your family doctor.

But you may wonder: Do these treatments work? Am I wasting my money? Most important, are they safe? Health experts are still trying to answer these questions. More research will hopefully shed light on the real benefits and risks of these alternative treatments.

What is complementary and alternative medicine?

The treatments used by most doctors are considered conventional medicine. Complementary and alternative medicine (CAM) consists of a group of health care practices and products that are considered out of the mainstream.

An “out-of-the-mainstream” treatment is considered complementary if you use it *along with* conventional medicine. An example would be using acupuncture along with painkilling drugs to reduce labor pains. A treatment is considered



alternative if you use it *instead of* conventional medicine. An example would be using acupuncture as your only treatment for headache.

This chapter will help you learn about the major CAM treatments and how they might benefit you. Also, just as important, it will tell you about the risks of certain CAM treatments and what to watch out for.

Who uses CAM?

Research shows that 40 percent of women in the United States use some form of CAM. If you include prayer for health reasons and taking large doses of vitamins as types of CAM, that number rises to 69 percent. CAM is used more by:

- women
- people with more education
- people who live in or near cities

Why do people use CAM?

People try CAM for a variety of reasons, including:

- Conventional medicine has not helped solve their medical problem.
- They believe that products derived from nature are healthier and safer than prescription drugs, even though they may not be.
- They like the holistic approach taken by CAM therapists. A holistic approach involves paying attention to all of a client's needs to help her regain and maintain her health. These include not just physical but also emotional, social, and spiritual needs.



Although something can be said for all of these reasons, you should be aware of some of the downsides of using CAM treatments, such as:

- No CAM treatment has been proven to work beyond a shadow of a doubt.
- Some CAM products, although derived from plants, can cause health problems. For instance, ephedra, a Chinese herbal product, was being sold in the United States to help people lose weight and to enhance athletic performance. Because ephedra increased the risk of heart problems and stroke, the U.S. Food and Drug Administration (FDA) banned the sale of ephedra.
- Some CAM products interfere with how prescription drugs work. For instance, St. John's wort, which some people take to treat depression, can



interfere with the actions of drugs for treating HIV, cancer, and other diseases. It may also reduce the effectiveness of birth control pills.

- Some herbal products, such as black cohosh, are unsafe to use during pregnancy. The safety of many other herbal products, either during pregnancy or breastfeeding, has not been studied.
- Some people might use an unproven CAM treatment that may not work or may carry risks, instead of a conventional treatment that is known to be effective.

If you choose to try a CAM treatment, be sure to discuss it first with your doctor. Your doctor should know whether the therapy may be helpful and is safe to try along with your current treatments. Some people don't mention their use of CAM treatments to their doctor because they think that their doctor will have negative feelings about CAM. If you are in this situation and would like to try a CAM treatment, perhaps you may want to find a doctor that you feel more comfortable talking to about this.

CAM Treatment Categories

- CAM treatments found in nature
- energy medicine
- therapies that adjust the body
- mind-body medicine
- whole medical systems

CAM treatments found in nature

Some CAM treatments use substances found in nature, such as herbs, vitamins, and minerals. The idea that natural substances might be used as medicines is not new. Practically since the beginning of time, people have used parts of plants and animals to treat diseases. In fact, some conventional drugs come from nature. For instance, aspirin is derived from a substance found in the bark of the willow tree.

Some CAM products are sold as dietary supplements. These are products taken by mouth that are intended to supplement, or add to, the diet. They come in many forms, including tablets, teas, and powders.

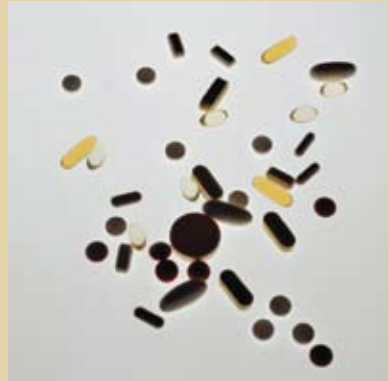
Label Regulations

The FDA regulates dietary supplements as foods rather than drugs. The laws about putting foods (including supplements) on the market are less strict than the laws for drugs. For instance, a manufacturer does not have to prove that a supplement is useful for treating any health problem before it is sold.

Some dietary supplements have been shown not to contain what was listed on the label. In some cases, pills did not contain as much of the supplement as the label said they did, or they contained more. In other cases, supplements were found to be contaminated with toxins, bacteria, or other substances. To address these problems, the FDA has issued new regulations requiring that:

- a dietary supplement contains what its label says it contains and in the dose listed on the label
- supplements are not contaminated

The new regulations took effect in August 2007 and will be phased in over 3 years.



Below are some CAM products found in nature that have been tried for various diseases and medical conditions:

Black cohosh and other plant products for treating menopausal symptoms

Black cohosh is often used for treating hot flashes and other menopausal symptoms. Research has generally shown that black cohosh by itself has little to no effect on menopausal symptoms. But one research study found that black cohosh combined with St. John's wort was somewhat effective in treating these symptoms.

Research studies have followed women taking black cohosh for only 6 months or less, so it's not known if the herb is safe to take for periods longer than 6 months. Black cohosh has been linked

to a few cases of hepatitis (inflammation of the liver), but it is not clear whether it caused the problem.



Other plant products that have been used for treating menopausal symptoms include:

- **Red clover.** Research has not shown red clover to be effective in reducing hot flashes.
- **Dong quai** (doong kweye). Research has not shown dong quai to be effective in reducing hot flashes. It also contains substances that may cause cancer.
- **Ginseng.** Research has shown that ginseng might help menopausal symptoms such as insomnia, depression, and feeling tired. But it does not seem to reduce hot flashes.
- **Kava.** Kava may decrease anxiety but does not seem to reduce hot flashes. The FDA has issued a warning about kava because it can damage the liver.
- **Soy.** Research on the effects of soy on hot flashes has produced mixed results. When taken as a food or dietary supplement for short periods of time, soy appears to have few if any serious side effects. But taking soy extracts for several years may cause thickening of the uterine lining. This can cause abnormal vaginal bleeding.

Cranberry

We normally think of cranberry as a food. But research suggests that cranberry can also be used for its health benefits. Cranberry—in the form of juice or tablets—may be able to prevent urinary tract infections in women. Cranberries contain a substance that prevents bacteria from sticking to cell walls in the urinary tract.



Echinacea

Echinacea (EK-ih-NAY-shuh) is commonly used to prevent or treat colds, flu, and other infections that affect breathing. Research suggests that echinacea is not effective in preventing or treating colds in adults. One research study showed that echinacea was not effective in treating colds and similar infections in children but reduced the chances that the children would develop them again later.



ECHINACEA FLOWER, ALSO CALLED PURPLE CONEFLOWER



FRESH GINGER

Ginger

Research suggests that ginger can relieve the nausea and vomiting of pregnancy. Researchers studied pregnant women who were given about 1 gram of ginger per day, which is about the amount commonly used in cooking. They took the ginger for up to 3 weeks. No serious side effects occurred using ginger in these amounts and for this length of time. But some herbal medicine textbooks caution against using larger amounts of ginger. If you are pregnant and considering using ginger, discuss it with your doctor.

Energy medicine

Some CAM therapies involve using different types of energy to treat illness. Some of these therapies use energies that everyone agrees exist, such as the energy field surrounding magnets. Other therapies claim to use a “life energy,” which may or may not exist.

Magnetic therapy

Magnets have been used at least since the time of the ancient Egyptians to treat medical problems. The magnets that we are most familiar with are static magnets. These are usually made of iron or steel, and their magnetic fields are static, meaning that they do not change. Refrigerator magnets are a type of weak static magnet.

Static magnets have been used to treat painful conditions, such as painful menstruation. Typically, magnets are placed directly on the skin or into products that come into contact with the body, such as bandages.

Research studies on the use of static magnets to relieve pain have produced mixed results. Some experts say that research studies that have shown pain relief have used stronger magnets than those that have not shown pain relief.

Another type of magnet is the electromagnet. Electromagnets consist of an iron core surrounded by a wire coil. When electricity flows through the coil, the iron core produces a magnetic field. When the electricity is turned off, the magnetic field goes away. In general, research studies using electromagnetic therapy to reduce pain have produced more positive results than those using static magnets.

“Life energy” therapies

The idea that a special type of “life energy” flows through people’s bodies is common among cultures around the world. For instance, the ancient Chinese called



it qi (chee), whereas ancient Hindus called it prana (PRAH-nuh). Also common is the idea that certain “healers” can treat illnesses by passing their life energy into others. They do this by holding their hands on or near a person’s body. In Japan, this is known as Reiki (RAY-kee). In Western cultures, it’s called therapeutic touch, laying on of hands, or polarity therapy. Some researchers have claimed to detect a unique form of energy given off by healers. But the findings of these research studies are controversial.

In research studies, energy healing seemed to:

- reduce pain in conditions involving muscles, bones, and joints
- help women receiving radiation treatment for cancer feel more energetic and less pain

In other research, energy healing did not seem to be effective. These research studies showed that energy healing:

- had no effect on the nerve pain that can occur in diabetes
- had no useful effect in people recovering from a stroke

Therapies that adjust the body

Some CAM practices involve handling, pressing, or moving parts of the body. Examples include:

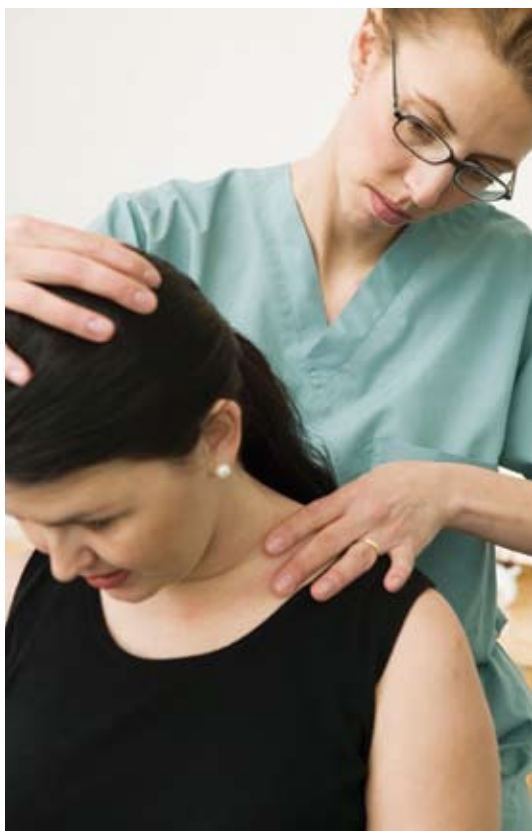
- chiropractic
- osteopathy (OSS-tee-OP-uh-thee)
- massage

Chiropractic

Chiropractors believe that the body has a natural healing ability that is controlled by the nervous system. They also believe that if the bones in the spine are not sitting on top of each other correctly, they put pressure on nerves along the spine. This can disrupt the flow of nerve signals to parts of the body. If a body part does not receive its normal supply of nerve signals, it becomes diseased, according to this theory.

To make the spinal bones line up straight, chiropractors make one or more “adjustments.” A chiropractic adjustment involves applying a sudden controlled force to a joint.

Research suggests that chiropractic adjustments may offer short-term relief for low back pain. However, most cases of short-term low back pain get better in several weeks no matter what treatment is used.



Chiropractic adjustments for low back pain are generally safe. But there have been cases of stroke following neck adjustments because of the tearing of arteries leading to the brain. There has also been concern that some chiropractors overuse x-rays, which may increase your risk of cancer.

Osteopathy

Osteopaths believe that the bones and muscles of the body need to be positioned properly so that blood and other body fluids flow as they should. This is thought to help ensure health. An osteopath will first feel the patient's body to find tense muscles and joints that do not move well. They then manipulate or

work with parts of the body to relieve muscle tension and help joints move more smoothly. Techniques include:

- thrust technique, in which the osteopath applies a brief rapid force to a joint, often causing a “popping” noise
- muscle energy, in which the osteopath directs you to move into a certain position while providing a specific amount of resistance against the movement
- myofascial (MEYE-oh-FASH-ee-uhl) release, in which the osteopath gently applies force to a tense body area

Osteopaths receive training in conventional medicine as well as osteopathic medicine. Because of this, osteopaths can prescribe drugs and perform surgery.

Research suggests that osteopathic manipulations may be useful for treating low back pain.

Massage

Massage therapists press, rub, or move muscles and other soft tissues of the body. Most people use massage to reduce muscle soreness and tension and relieve stress and anxiety.



Research suggests that massage therapy may be useful in treating various conditions, including:

- fibromyalgia (feye-broh-meye-AL-jee-uh)
- osteoarthritis (OSS-tee-oh-ar-THREYE-tuhss) of the knee
- anxiety

Also, research has shown that preterm infants who receive daily massage treatments gain more weight per day and show fewer stress behaviors than those who do not receive these treatments.

Mind-body medicine

Perhaps you have noticed that your mood can affect whether or not you get sick. If you feel well, you are less likely to get sick. If you feel bad, you are more likely to get sick. In fact, research has shown that mood can affect your health. For instance, in one research study, people who were energetic, happy, and relaxed were less likely to develop a cold even though they were infected with a cold virus than were people who were sad, tense, and angry.

Mind-body medicine is a branch of CAM that seeks to understand how your mind and body affect each other. Mind-body therapies attempt to use this information to improve your health. Two examples of mind-body therapies are biofeedback and hypnosis.

Biofeedback

Biofeedback allows people to control things about their body that they ordinarily would not be able to control. These include heart rate, skin temperature, and muscle tension. During a biofeedback



SENSORS USED IN BIOFEEDBACK

session, therapists apply electrical sensors to parts of a client's body. These sensors measure something about the body that would be useful to control. For instance, someone who gets tension headaches because of increased muscle tension in the head would have sensors on the head to detect muscle tension. When the muscles become more tense, this is made known to the client by a beeping sound or a flashing light. The client learns to turn off the sound or light by relaxing head muscles. This helps get rid of the headache.

Biofeedback has been shown to be helpful in treating a variety of medical conditions, including:

- high blood pressure
- hot flashes
- irregular heartbeats

Hypnosis

Hypnotists try to produce a mental state in which you are more open to suggestions. To hypnotize someone, a therapist will first get them to relax and concentrate on an object. Then the therapist will tell them something such as, "You will not feel pain when you give birth."



Research has shown that hypnosis can be useful for:

- reducing labor pain
- reducing anxiety before medical or dental procedures
- treating tension headaches

Not everyone can be hypnotized. Research suggests that people who can become absorbed in activities such as reading, listening to music, or daydreaming have a greater ability to be hypnotized.

Whole medical systems

Whole medical systems are health care methods that have evolved separately from conventional Western medicine. Each medical system involves several therapies that are often used in combination.

Traditional Chinese medicine

Traditional Chinese medicine includes:

- acupuncture, a treatment that involves inserting thin needles into specific points on the skin

- moxibustion (MOKS-ee-BUHSS-chuhn), the burning of the herb moxa (MOKS-uh) (also known as mugwort) at an acupuncture point to stimulate the point with heat
- Chinese herbal medicines

The part of traditional Chinese medicine that has been studied the most in terms of its health effects is acupuncture. Acupuncture was developed in China more than 2000 years ago. According to ancient Chinese beliefs, disease is due to a blockage in the flow of qi energy through the body. Inserting needles into acupuncture points unblocks qi to restore health, according to this theory. Modern scientists think that acupuncture may work by causing the release of natural painkillers in the brain.

Research has shown that acupuncture may be useful for reducing:

- pain after dental procedures
- severe vomiting that can occur during pregnancy
- labor pain
- pain in osteoarthritis of the knee



Also, research suggests that acupuncture plus moxibustion may cause a breech baby to move to the head-down position, which allows for a normal vaginal birth. Before birth, most babies are in this head-down position in the mother's uterus. But sometimes the part of the baby that is down near the vagina is the buttocks or the feet. When a baby is in one of these positions before birth, it's called a breech baby. Doctors often deliver breech babies by cesarean section.

Compared with acupuncture, less research has been done on the health effects of Chinese herbal medicines. But drugs for treating malaria have been developed from one Chinese herbal medicine.

Ayurveda

Ayurveda (AH-yur-VAY-duh) is one of the world's oldest systems of medicine. It started in India more than 5000 years ago. Ayurveda involves many different treatments, including:

- herbal medicines

Warning

Some Chinese and Ayurvedic herbal medicines have been found to contain toxic metals and other harmful substances. Some Chinese herbal medicines have also been found to contain prescription drugs that were not listed on the label. Before taking any Chinese or Ayurvedic herbal medicines, you should talk to your doctor. For information about new FDA regulations to address problems with dietary supplements, which includes these medicines, see page 370.



- meditation
- yoga (a system of exercises designed to help you gain control of your body and mind)

Research on Ayurvedic treatments is still in the early stages. But a number of Ayurvedic herbs and spices are showing promise in treating various diseases. For instance, tumeric, a spice that is often used in Ayurvedic treatments, contains a substance that may help treat Alzheimer's disease.

Homeopathy

Homeopathy (HOH-mee-OP-uh-thee) is a medical system developed in Germany in the early 1800s. It is based on the idea that drugs that produce symptoms similar to those of a disease can help cure that disease. Homeopathic products contain these drugs in very small doses dissolved in water or alcohol.

Homeopathic products have been tried for many health issues, including menopausal hot flashes and premenstrual syndrome. A few research studies have shown homeopathic products to work for some conditions. But many experts question these results because homeo-



pathic products contain such small doses of the active drug. More research is needed before homeopathy can be considered useful for any medical condition.

Tips on selecting a CAM therapist

Selecting a CAM therapist is much like selecting a conventional doctor. You want someone you feel comfortable with and who will help you with your health concerns. Below are some tips for choosing a CAM therapist:

- Talk with your primary care doctor about your interest in trying a CAM therapy. Discuss possible benefits and risks of the therapy. Ask if the therapy might interfere with your conventional treatments. Also, ask your doctor to

recommend someone who practices the type of therapy that you are interested in.

- Some large medical centers have CAM therapists on staff. Check to see if there is such a center near you.
- Contact a national association for the therapy that you are interested in and ask for a list of certified therapists in your area. To find CAM associations, ask your local librarian for directories that you can look in.
- Some states have agencies that regulate and license certain types of CAM therapists. The agency may be able to provide you with a list of therapists who meet their standards.
- Find out if your health insurance company will cover your visit to a CAM therapist. Most CAM therapies are not covered by insurance.
- After you choose a CAM therapist, go to your first visit with a list of questions that you want answered. Also, be prepared to discuss your health history and the other treatments that you are receiving.

A final word

Be sure to mention any CAM therapies that you are considering trying with your primary care doctor. Your doctor will be able to tell you about the possible benefits and risks of the treatment. Also, when it comes to CAM therapies, it is probably best to steer a middle course. Keep an open mind but, at the same time, be skeptical. ■

One Woman's Story

I have found massage therapy to be a very valuable complementary therapy. As a single mother, raising four children, I have over the years worked through periods of extreme stress. This overload of stress has contributed to severe headaches and shoulder and back pain. I have found that getting a good massage is the single most effective intervention to reduce stress and relieve the muscle tension resulting from too many hours in front of a computer.

Several years ago, while sitting at a red light in my car, I was struck from behind and suffered a whiplash injury to my neck. I suffered terribly for months with pain, and none of the typical treatments provided relief. Not content to spend my evenings doped up on painkillers and muscle relaxers and unable to participate in my children's lives, I visited my massage therapist, who also was trained in craniosacral therapy, which involves adjusting bones in the head and spine. After just a few sessions of craniosacral therapy and massage, the pain from the whiplash injury went away and has never returned.

Massage therapy has been a safe and effective complementary therapy for me. If we all had biweekly massages, perhaps we as a nation would be healthier!

Sarah

Olney, Maryland

**Massage therapy
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and effective
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For More Information...

National Center for Complementary and Alternative Medicine Clearinghouse, NIH

PO Box 7923

Gaithersburg, MD 20898

Web site: www.nccam.nih.gov

Phone number: (888) 644-6226,
(866) 464-3615 TTY

Office of Cancer Complementary and Alternative Medicine, NIH

6116 Executive Blvd, Suite 609,
MSC 8339

Bethesda, MD 20892

Web site: www.cancer.gov/cam

Phone number: (800) 422-6237

Office of Dietary Supplements, NIH

6100 Executive Blvd, Room 3B01,
MSC 7517

Bethesda, MD 20892-7517

Web site: www.ods.od.nih.gov

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4929 Wilshire Blvd, Suite 428

Los Angeles, CA 90010

Web site: www.medicalacupuncture.org

American Chiropractic Association

1701 Clarendon Blvd

Arlington, VA 22209

Web site: www.acatoday.org

American Holistic Medical Association

1 Eagle Valley Ct, Suite 201

Broadview, OH 44147

Web site: www.holisticmedicine.org

American Massage Therapy Association

500 Davis St, Suite 900

Evanston, IL 60201-4695

Web site: www.amtamassage.org

Phone number: (877) 905-2700

American Osteopathic Association

142 East Ontario St

Chicago, IL 60611

Web site: www.osteopathic.org

Phone number: (800) 621-1773

American Society of Clinical Hypnosis

140 N Bloomingdale Rd

Bloomington, IL 60108

Web site: www.asch.net

Association for Applied Psychophysiology and Biofeedback

10200 W 44th Ave, Suite 304

Wheat Ridge, CO 80033

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