Making Treatment Decisions

Complementary and Alternative Methods for Cancer Management

You may hear the terms "alternative" or "complementary" used to refer to methods that are supposed to prevent, diagnose, or treat cancer. You may wonder just what these terms mean. Someone may tell you about herbs, vitamins, energy work, special exercises, or meditation programs. You might hear about methods that are done by someone else, like traditional Chinese medicine, acupuncture, hypnosis, or machines that are supposed to find or cure cancer. Sometimes people will speak of "body cleansing" with enemas, botanicals, or detoxification diets. There are many others. How can you know if these methods are safe and whether they are likely to help you? The information here is offered to help you understand more about safety and think about whether and how you might want to use these methods.

What terms are used to describe cancer treatment?

Proven treatments

New medical treatments are assumed to be ineffective until they are proved to be useful. In fact, most new drugs made in research labs are shown to not work well for treating cancer in humans. That's why doctors focus on results of carefully conducted clinical studies. They don't prescribe drugs just because a drug company claims they work. Treatments must be proven in studies that are supervised and reviewed by leading experts in cancer treatment. Patient success stories, marketing brochures, and testimonials aren't convincing evidence.

Even the results from a lone clinical trial are not enough to prove a treatment works. Evidence is built up slowly, often starting with lab studies, then animal studies, then small studies in humans. This is done before larger clinical trials (in humans) are finally done that are expected to show whether a treatment works. The study results are looked at to see how well they match with other studies. Differences in results are carefully examined. Methods are reviewed to be sure that rigorous scientific procedures were used. All this helps doctors understand more about the treatment -- and if it works, when and how to use it.

Proven treatment refers to treatments that have been tested following this strict set of guidelines and found to be safe and useful. The results of such studies have been published in peer-reviewed journals. Peer-reviewed journals are those in which the articles are studied by other doctors or scientists in the field to be
sure that they meet certain standards before being published. Treatments that are tested in these ways are sometimes called evidence-based. They are generally adopted by doctors as part of mainstream medicine. Mainstream medicine (the usual type of treatment you get from a medical doctor) may also be called standard treatment, conventional medicine, allopathic medicine, or Western medicine.

For the most part, the treatments used in mainstream medicine have been approved by the Food and Drug Administration (FDA).

**Research and investigational treatments**

Research or investigational treatments are therapies being studied in clinical trials. Clinical trials are research projects in which volunteers help doctors find out whether a new treatment works and is safe for patients. Before a drug or other treatment can be used regularly to treat patients, it is studied and tested carefully, first in the lab or in animals. After these studies are finished, if the therapy is found safe and promising, it is then tested in clinical trials to see if it helps people. If these tests show that the treatment is safe and effective, the Food and Drug Administration may approve it for regular use. Only then does the treatment become part of the standard mainstream treatment. (See our document, *Clinical Trials: What You Need to Know* for more information.)

**Complementary therapy**

Complementary therapy is used along with standard or mainstream medical treatment. Some complementary therapies may help relieve certain symptoms of cancer, relieve side effects of cancer treatment, or improve a patient’s sense of well-being. Examples might include meditation to reduce stress, peppermint or ginger tea for nausea, and guided imagery to help relieve stress and pain during medical procedures. Some of the methods, such as massage therapy, relaxation, and meditation that are now called complementary have actually been referred to as supportive care in the past.

The American Cancer Society urges patients who are thinking about using any complementary or non-mainstream therapies to discuss this with their health care team.

**Integrative therapy**

Integrative therapy is a term often used to describe the combined use of proven mainstream treatments and complementary methods. You may have heard the term integrative oncology. Some cancer treatment centers and clinics now offer this option for patients who might be helped by complementary methods.
**Alternative therapy**

*Alternative therapy* is used instead of mainstream treatment. Alternative therapies are either unproven because they have not been scientifically tested, or they have been disproved; that is, they have been tested and found not to work. They may cause the patient to suffer because they are not helpful, because they can delay the use of proven methods, or because they are actually harmful.

The American Cancer Society urges patients who are thinking about using any alternative or complementary therapy to discuss this with their health care team.

**Treatments not supported by evidence**

*Disproven* is a term that is not often used, but it may be used to describe a type of treatment that has been studied enough to find out that it does not work for a given condition. More often, however, such a treatment is described by saying that studies do not support claims that the treatment helps a certain type of cancer or a certain condition.

**Quackery and fraud**

*Quackery* refers to the promotion of methods that claim to prevent, diagnose, or cure cancers that are known to be false, or which are unproven and likely to be false. These methods are often based on theories of disease and treatment that are contrary to conventional scientific ideas, and they may use patient testimonials as evidence of their effectiveness and safety. Many times, the treatment is claimed to work in other diseases as well as cancer.

*Fraud* goes a step beyond quackery. Unproven or untested treatments may be advertised deceptively by people whose main intent is to make money. Some of these treatment methods have been tested and found not to be effective. Some are known to be harmful. Others have not been tested, but the sellers claim that they know it can help you.

If you suspect fraud in any kind of health treatment, including supplements, you can contact the U.S. Food and Drug Administration (FDA). The FDA is listed in the blue pages of the phone book under "U.S. Government." Look under the heading, "Health and Human Services." Or visit their Web site at www.fda.gov.

If the promoted treatment is a dietary supplement, the Federal Trade Commission is responsible for enforcing the laws about how it is marketed. (The FDA deals with how supplements are labeled. And for companies or people offering other types of fraudulent treatments or services, other enforcement bodies may be involved.) But many of these fraud-selling companies move offshore to other countries, where they may find it easier to evade the authorities. You can report deceptive advertising and fraudulent practices to the FTC at:
Other terms

Other words used to describe treatments that are not used in mainstream medicine are unconventional, non-conventional, and non-traditional. These terms may be used to describe any complementary or alternative therapy. It is important to remember that some treatments that seem unconventional to us have been used in other cultures for thousands of years, such as traditional Chinese medicine or Native American healing. Some of these treatments are used in complementary or alternative therapies.

Sometimes the term "questionable" is used to describe therapy which is thought to be worthless or fraudulent.

What makes complementary or alternative therapies harder to evaluate?

The treatments are assumed to be safe

Many people choose complementary or alternative therapies because they think there are no harmful side effects from them. This is not always true. One big concern is the delay in mainstream treatment that can allow the cancer to grow and spread to other parts of the body. Another is that some complementary and alternative therapies have been reported to cause serious problems or even deaths. Even so, most of these problems are not reported to the FDA by the patient or family, so no one else hears about them. Sometimes, if the patient were treated by a doctor who wrote up the problem for a medical journal, there may be reports of some of the more serious effects of these treatments. But it is clearly impossible to be sure that all of the side effects are reported and published.

Certain vitamins and minerals can increase the risk of cancer or other illnesses, especially if too much is taken. When it happens to one person, it is very easy to miss any link between the illness and the supplement. Large groups of people must be studied to find out about a small increase in risk.

Some companies do not follow FDA’s rules about making claims and labeling supplements properly. In many cases, these companies know that they are operating illegally and will move to a country where regulations are more lax than the United States.

Finally, if a company does not carefully control the manufacturing process, it is possible for harmful contaminants to get into dietary supplements. Serious illnesses and even deaths have resulted from these problems.
In contrast to dietary supplements and alternative therapies, most complementary mind-body methods are extremely safe. There is no need for human studies to find out how many hours of meditation or music therapy people can safely handle.

At the other extreme, some alternative biological therapies are no less toxic than chemotherapy, so safety studies are needed. Even though the details of clinical trials for evaluating drugs and complementary methods may differ a little, the basic principles are the same.

If you have experienced a serious side effect from a dietary supplement, you can report it to the FDA's Medwatch program. (See information in the “Additional Resources” section.)

Some treatments are assumed to be effective

There are those who think that treatments derived from folk remedies that have been used for “thousands of years” must work. It is important to keep in mind that just because a treatment method has been used a long time does not mean that it works. Still, it is very common for people who want you to try these methods to remind you of their long history.

When scientific studies are not done, it is hard to tell what is caused by the illness and what is caused by the treatment. Herbal treatments that are given for illnesses that go away on their own may be given credit for curing the person. Or the treatment might make the person feel better for a short time but have no effect in the long run.

The expectation effect

It is quite common for people to feel better after almost any kind of treatment that they expect to help them. There is a name for this: It is called the placebo effect, which is one form of the expectation effect. The placebo effect means that if the person expects the treatment to help, he or she may feel better after getting it -- even if the treatment does nothing for the underlying problem. This effect usually lasts only a short time, and seems to have something to do with the body’s own chemical ability to relieve pain or certain symptoms for up to a few hours.

The expectation effect can also work in a less pleasant way. A person who expects a strong treatment to have side effects may notice a headache, fatigue, nausea, or other symptom even though he or she got a sham (inactive) treatment. This has been named the nocebo effect. This effect is one reason why, in scientific studies, side effects are listed for the placebo group as well as the treatment group. You can visit our Web site for more information on the Placebo Effect or you can call us for a copy.
Clearly, when there is no scientific study (or when there is a study with no control group), it is impossible to separate these expectation effects from some of the short-term treatment effects. The placebo effect may explain one of the reasons that people keep using certain types of complementary or methods that have no actual effect on the disease. If they feel better for a few hours, it may be worthwhile to them to keep using the method as long as it does not hurt them. It does not mean that it will have the same effect on everyone who tries it, though.

**Testing is not required by law**

The U.S. FDA does not require proof that dietary supplements be tested before they are sold, even though certain health claims are often allowed. Dietary supplements are handled by the FDA in just the opposite of the way medicines are. Even drugs that are sold over the counter must be carefully tested to find out about their risks and side effects before they can be sold. They also must be proven effective.

Although there are new requirements about how dietary supplements are to be made and labeled, there is no requirement that they be tested to find out whether they actually help. And dietary supplements will continue to be presumed safe until proven otherwise.

Other methods, such as massage therapy, acupuncture, and meditation came into wide use with no requirement for testing.

**Good research studies take time**

It is hard for some people to believe that the treatments their family and friends recommend have no proof that they work. They may hear convincing stories of a person who was told they had cancer. Then, after using this treatment, the patient became well and healthy again.

Everyone wants to believe these hopeful stories. But stories about amazing cures cannot be thought of as evidence that a treatment works. Most of the time, there is no way to be sure the stories are true. And if such a story is true, it is not possible to know which treatment helped the person or whether he or she got sick again later. These are questions that can be answered by controlled studies (clinical trials).

Some of the clinical trials that are done on complementary methods are done differently than those on drugs and other mainstream treatments. Sometimes the study may not have a control group, or there may not be enough people in the study to show any effect. Sometimes even when there is a control group, the studies aren't blinded, meaning that the researchers know who is getting placebo or standard treatment. Knowing this information can lead to biased results. In studying some methods (for example, acupuncture and some other hands-on
methods), it is almost impossible to come up with a good placebo method for the control group.

It takes time and money to get careful clinical trials done. How long a clinical trial takes depends partly on what it is being tested. For instance, it may take several years to show that a treatment helps survival, but only a few months to show that it helps nausea related to chemotherapy. Since the companies that make supplements or offer complementary therapies often do not carefully test them before selling them, it is left to other researchers to look into their claims. Because there are many types of complementary therapies, it may be a long time after the treatment is first offered before studies are published that can show that any one treatment does or does not help. This can be frustrating when a person wants information to make a decision right now.

The good news is that more and more doctors and scientists are now studying complementary methods with the same careful methods used to study drugs. Results from many of these studies have been published in reliable, mainstream medical journals. As more of these studies are completed, patients and healthcare professionals will be able to make better decisions about these treatments.

**Judging for yourself**

All of these factors mean that it is common to find much less high-quality, objective information available about complementary and alternative methods than is available about mainstream treatments. This is one of the reasons that it is sometimes impossible to say much about whether a complementary method is likely to help you, or even how safe it might be. That is why you will want to learn as much as you can about a treatment before you try it. Even if some information isn't available, you can find out the limitations of what is known about it to help you make your decision.

**Can I safely use an alternative or complementary cancer therapy?**

Many people with cancer use one or more kinds of alternative or complementary therapies. Often they do not tell their doctors about their decisions. The best approach is to look carefully at your choices. Talk to your doctor about any method you are thinking about trying. There are many complementary methods you can safely use along with standard treatment to help relieve symptoms or side effects, to ease pain, and to help you enjoy life more. Even if they are not fully tested, you can choose methods that don't usually cause harm and won't interfere with your cancer treatment. Here is a partial list of some complementary methods that some people have found helpful when used along with standard medical treatment.
Complementary approaches that may be used with cancer treatment

- **Acupuncture**: Acupuncture is a technique in which very thin needles are put into the body to treat a number of symptoms. It may help with mild pain and some types of nausea. (See our document *Acupuncture*.)

- **Aromatherapy**: Aromatherapy is the use of fragrant substances, called essential oils, that are distilled from plants to alter mood or improve symptoms such as stress or nausea. (See our document *Aromatherapy*.)

- **Art therapy**: Art therapy is used to help people with physical and emotional problems by using creative activities to express emotions. This is done by mainstream therapists with specialized training. (See our document *Art Therapy*.)

- **Biofeedback**: Biofeedback is a treatment method that uses monitoring devices to help people gain conscious control over physical processes that are usually controlled automatically, such as heart rate, blood pressure, temperature, sweating, and muscle tension. (See our document *Biofeedback*.)

- **Labyrinth walking**: Involves a meditative walk along a set circular pathway that goes to the center and comes back out. Labyrinths can also be "walked" online or on a grooved board following the curved path with a finger. (See our document *Labyrinth Walking*.)

- **Massage therapy**: Massage involves manipulation, rubbing, and kneading of the body's muscle and soft tissue. Some studies suggest massage can decrease stress, anxiety, depression, and pain and increase alertness. (See our document *Massage Therapy*.)

- **Meditation**: Meditation is a mind-body process in which a person uses concentration or reflection to relax the body and calm the mind. (See our document *Meditation*.)

- **Music therapy**: Music therapy is offered by trained healthcare professionals who use music to promote healing and enhance quality of life. (See our document *Music Therapy*.)

- **Prayer and spirituality**: Spirituality is generally described as an awareness of something greater than the individual self. It is often expressed through religion and/or prayer, although there are many other paths of spiritual pursuit and expression. (See our document *Spirituality and Prayer*.)

- **Tai chi**: Tai chi is an ancient Chinese martial art. It is a mind-body system
that uses movement, meditation, and breathing to improve health and well being. It has been shown to improve strength and balance in some people. (See our document *Tai Chi.*)

- **Yoga:** Yoga is a form of non-aerobic exercise that involves a program of precise posture and breathing activities. In ancient Sanskrit, the word yoga means "union." (See our document *Yoga.*)

Along with these, the American Cancer Society has information on many other types of alternative and complementary treatments. You can call us (1-800-227-2345) or visit our Web site ([www.cancer.org](http://www.cancer.org)) any time to find out more on these methods.

The American Cancer Society recommends discussing all types of complementary or alternative treatments with your cancer treatment doctor (oncologist) and health care team. See our document *Guidelines for Using Complementary and Alternative Therapy* for more information on how to go about this.

If you are thinking about using any other method instead of evidence-based medical treatment, you may also want to look at the questions below.

**Questions to ask about alternative and complementary therapies**

- What claims are made for the treatment? That it can relieve symptoms or side effects? That it can improve health? Be very suspicious of any treatment that says it can cure cancer. Claims that a treatment can cure all cancers or that it can cure cancer and other difficult-to-treat diseases (including chronic fatigue, multiple sclerosis, AIDS, etc.) are certain to be fraudulent.

- What are the qualifications of those supporting the treatment? Are they recognized experts in cancer and complementary medicines?

- Have scientific studies or clinical trials been done to find out whether this treatment works? Have any side effects been reported? Have the findings been published in trustworthy journals after being reviewed by other scientists?

- How is information about the method given? Is it promoted only in the mass media, such as books, magazines, the Internet, TV, infomercials, and radio talk shows rather than in scientific journals?

- Is the method widely available for use within the health-care community? Once a treatment is found safe and useful, it is widely adopted by other professionals. Beware of treatments you can only get in one clinic,
especially if that clinic is in a country with more lax patient protection laws that those in the United States or the European Union.

- What is known about the safety of the treatment? Could it be harmful or interact badly with your other medicines or supplements?

**Signs of treatments to avoid**

Use the checklist below to spot treatments that might be open to question. Keep in mind that if something sounds too good to be true, it usually is. If you are not sure, talk to your doctor or nurse before moving ahead.

- Does the treatment promise a cure for all cancers?
- Are you told not to use recommended or standard medical treatment?
- Does the treatment offer benefits but claim to have no side effects?
- Is the treatment or drug only offered by one person or clinic?
- Does the treatment require you to travel to another country?
- Do the promoters use terms like "scientific breakthrough," "miracle cure," "secret ingredient," or "ancient remedy"?
- Are you offered personal stories of amazing results, but no actual scientific evidence?
- Do the promoters attack the medical or scientific community?

Again, there are some safe complementary therapies out there that can help you feel better. But there are other treatments that can hurt you. Before investing money and time in any non-traditional medicine, please talk to your doctor about whether or not it may help you in your fight against cancer.

**Additional resources**

**More information from your American Cancer Society**

The following information on complementary and alternative therapies may also be helpful to you. These materials may be found on our Web site ([www.cancer.org](http://www.cancer.org)) or ordered from our toll-free number (1-800-227-2345).

- **Guidelines for Using Complementary and Alternative Methods**
• **Dietary Supplements: How to Know What Is Safe**

• **Learning About New Cancer Treatments**

• **American Cancer Society Operational Statement on Complementary and Alternative Methods of Cancer Management**

• **Placebo Effect**

• **Clinical Trials: What You Need to Know**

Along with the above, information on many different types of complementary and alternative treatments are available at no cost to you from the American Cancer Society. You can find them on our Web site or request from our toll-free number.

**National organizations and Web sites**

There is a great deal of interest today in complementary and alternative therapies. Mass communication, especially the Internet, makes it possible for people to share ideas and information very quickly. But too often information on the Internet is written by promoters of useless treatments. Along with the American Cancer Society, the following is a partial list of Web sites and phone numbers of reputable groups that provide information on complementary and alternative therapies:

**National Cancer Institute**
Toll-free number: 1-800-4-CANCER (1-800-422-6237)
TTY: 1-800-332-8615

**National Center for Complementary and Alternative Medicine (NCCAM)**
Toll-free number: 1-888-644-6226
TTY: 1-866-464-3615

**Memorial Sloan Kettering Cancer Center**
About Herbs and Botanicals

**The University of Texas MD Anderson Center**
Complementary/Integrative Medicine Therapies
Web site: [www.mdanderson.org/cimer](http://www.mdanderson.org/cimer)

**United States Department of Agriculture, Food and Nutrition Information Center**
Toll-free number: 1-888-INFO-FDA (1-888-463-6332)
Choose "Dietary Supplements" from the left menu bar

**United States Food and Drug Administration**
Web site: http://vm.cfsan.fda.gov/~dms/supplmnt.html
To report side effects or other adverse events from a dietary supplement, call Medwatch at 1-800-FDA-1088 (1-800-332-1088)

**National Council Against Health Fraud**
Web site: www.ncahf.org

**Quackwatch**
Web site: www.quackwatch.org

*Inclusion on this list does not imply endorsement by the American Cancer Society.*

No matter who you are, we can help. Contact us anytime, day or night, for information and support. Call us at 1-800-227-2345 or visit www.cancer.org.

**References**


