

# Asking the Experts: Complementary and Alternative Medicine and Cancer

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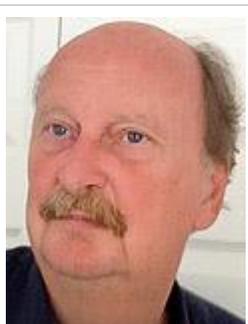
**Editor's Note:** *The use of treatments considered complementary or alternative to mainstream medical care is undeniably widespread in the United States, particularly the use of dietary supplements.*



**Barrie R. Cassileth,  
PhD**

*According to a report by the Centers for Disease Control and Prevention published earlier this year,<sup>[1]</sup> 17.9% of adults use nonvitamin, nonmineral dietary supplements -- more than twice the percentage who use chiropractic or osteopathic manipulation, yoga, massage, meditation, or special diets. A second study, using data from the 2005-2008 National Health and Nutrition Examination Survey, found that 34% of patients in the survey -- some 72 million people in the United States -- were taking some kind of dietary supplement along with a prescription medication.<sup>[2]</sup>*

*And these percentages are probably higher among cancer patients. Studies estimate that at least half of cancer patients use some type of complementary intervention, with one survey by the market research firm Datamonitor<sup>[3]</sup> suggesting that 80% of cancer patients use an alternative or complementary modality.*



**Edzard Ernst, MD,  
PhD**

*Medscape posed five questions on the role of complementary and alternative medicine for cancer patients to two leading experts in the field. Barrie R. Cassileth, PhD, founded the integrative medicine*

*service at Memorial Sloan Kettering Cancer Center in New York City, where she is Laurance S. Rockefeller Chair in Integrative Medicine. She also served as founding president of the Society for Integrative Oncology. Edzard Ernst, MD, PhD, is the former Chair of Complementary Medicine and currently an emeritus professor at the University of Exeter in Exeter, England. Dr. Ernst has published 48 books and more than 1000 articles in the peer-reviewed medical literature, with a focus on the critical evaluation of all aspects of alternative medicine.*

**Medscape: In the medical community, what is the most common misconception about alternative and complementary treatments in cancer care?**

**Dr. Cassileth:** The most common misconception and misperception is that there is a relationship between alternative therapies and complementary therapies, which are part of integrative medicine. There are no viable alternatives to mainstream cancer care, but there are many products and services that are sold to the public, to the naive public, calling themselves alternative medicines or alternative therapies. This is, in the United States and in other developed countries, more than a \$40 billion-a-year business. All of this is bogus. There are no viable alternatives to mainstream care, but a lot of people are getting wealthy pushing alternatives. In other words, they say, "Don't bother with mainstream treatment; you don't have to get surgery or chemotherapy or whatever. Come here, and we will treat you." With something that turns out to be utter nonsense. What happens to these patients -- I know because I have been there and have seen it happen many, many times -- is that they realize after a fairly short period of time, several weeks or a month, that the "alternative cancer therapy" they were given is not working, and in fact, they are getting worse. They usually die because they failed to get treatment when it was needed. That is alternative medicine. No one who is a reliable person at a reliable institution would have anything to do with alternative medicine, also called quackery. ...Integrative medicine, on the other hand, is an evidence-based approach to reduce symptoms. It does not treat cancer. It reduces symptoms associated with cancer. These are rational, evidence-based interventions that are nonpharmacologic and that have substantial value in the cancer setting.

**Dr. Ernst:** Probably the most common, and perhaps most irritating, is the concept that [complementary and alternative treatments] are something that is utterly trivial and unimportant and basically safe; it can't do any harm, it might help. That sort of attitude I find quite irritating because so many people and so many patients use these treatments, that putting it off as something that is too trivial to have an opinion about is really not the correct attitude.

**Medscape: Studies suggest that vitamins and herbs are the most common form of alternative and complementary treatments that many cancer patients use. What dangers can herbal supplements pose for patients receiving cancer treatments?**

**Dr. Cassileth:** The greatest danger is in herb-drug interactions. When people are ill, including cancer patients, anyone who is receiving medication has to be extremely careful of what he or she takes in at the same time. We have a [website](#) -- it is part of the Memorial Sloan Kettering website -- and it is about herbs, dietary supplements, unproven methods. "Unproven methods" is a nice way to say alternatives that are total fakes, and a lot of other things. ...So the bottom line is, be very wary of claims for dietary supplements, especially herbs, that are said to be useful as a cancer treatment, and beware of them even if you get mainstream cancer treatment and want to take an herb. You are putting yourself in danger because of potential herb-drug interactions.

**Dr. Ernst:** It really depends on the herbal supplement. There are about 6000 -- that is a really rough estimate -- different herbal remedies, and each of them has its own dangers, its own risks. But

generally speaking, the risks are, of course, toxicity of the herb itself, and then interactions with prescribed drugs. Here we only know the tip of the iceberg because research into this area has only just begun. We know that herbs have the potential to interact, but we don't know enough about the subject. If we are dealing with Asian herbal mixtures in particular, we know that many of them are contaminated and/or adulterated -- adulterated with prescription drugs and contaminated, for instance, with heavy metals, which obviously can cause harm. The biggest danger of all is that these supplements might be used as a true alternative to effective treatments. In this situation, a harmless but ineffective remedy can almost immediately become life-threatening.

**Medscape: Prayer and herbal supplements are among the most commonly cited alternative and complementary therapies used by patients. Some of these, like prayer, presumably have no benefit, but they make patients feel better or they make them feel more hopeful. Is there any role for the placebo effect that alternative and complementary treatments might provide for cancer patients?**

**Dr. Cassileth:** Not in my book.

**Dr. Ernst:** Yes and no. There certainly is a role for placebo in medicine; it can help patients, it can make patients feel better, etc. But we don't need a placebo in order to generate placebo effects. That might sound a little paradoxical, but it isn't, really. If we administer an effective treatment -- by which I mean a treatment that has effects beyond placebo -- to a patient with empathy, kindness, compassion, etc, that patient would also benefit from a placebo effect, obviously. He or she will then have the benefit of a specific effect of the treatment that I administer as well as from the placebo effect. If you turn this around, just giving a placebo is cheating the patient. It is as simple as that, and justifying ineffective treatment by the fact that they provide a placebo effect makes no sense at all. If you adhere to that principle, you would need to allow the pharmaceutical industry to sell placebos masquerading as effective treatments.

**Medscape: What is one complementary or alternative treatment that should be more frequently recommended to cancer patients?**

**Dr. Cassileth:** The most important message is to avoid all "alternatives," all nonrational things that have no data behind them and that don't make any sense to most educated people. That would be my number-one advice. In terms of useful complementary or integrative modalities, we are talking about a very different area of activity here. In the cancer setting, all of these therapies are geared toward reducing symptoms associated with cancer and cancer treatment; there are several that are very well documented. Physical activity [is something that Memorial Sloan Kettering is] heavily engaged in; we must have a dozen different types of exercise -- everything from in-bed yoga for people who are hospitalized, to chair aerobics for people who can't stand up, to everything else you could possibly think of. Massage therapy is something that patients find extremely helpful, particularly those who are very seriously ill inpatients. Mind-body therapies work well. Meditation is very soothing and calming; there is a big literature on that over many decades. With cancer patients in more recent years, music therapy has had a great deal of value for patients, particularly those who are seriously, terminally ill and hospitalized. We know that acupuncture reduces neuropathic pain. Our own publication, a randomized trial,<sup>[4]</sup> showed that it reduces xerostomia, which is extreme dry mouth that people who have neck cancer experience, and nothing else treats it -- nothing.

**Dr. Ernst:** The most important message here has to be that any alternative cancer cure is bogus by definition. There will never be an alternative cancer cure. Why? Because if something looked halfway

promising, then mainstream oncology would scrutinize it, and if there is anything to it, it would become mainstream almost automatically and very quickly. All curative "alternative cancer cures" are based on false claims, are bogus, and, I would say, even criminal. The role of alternative or complementary treatments, particularly in the realm of cancer, is palliation and supportive care. Treatments that use relaxation and increase well-being might have a place. Most alternative treatments induce a degree of relaxation, but we have to make sure that this is not at a cost. It has to be without serious adverse effects and would have to be without what a lot of people call "woo" -- in other words, bullshit.

**Medscape: Alternative and complementary treatments are widely used but are also relatively unregulated in the United States compared with countries like Japan, where herbal medicines are approved by regulators and are reimbursed under their national insurance program. What factors in the United States are responsible for the wide use of alternative and complementary treatments, but without much regulatory oversight?**

**Dr. Cassileth:** In the cancer setting, the use of literal alternatives to mainstream care is increasingly minor. There are very few people who do that anymore, but we are still up to about \$40 billion a year in the United States and in all developed countries, including Japan... I think what we are seeing very clearly is that there are tremendous similarities across countries, but some countries are behind others. The United States is in the forefront of working hard to get rid of bogus alternatives and to make sure that people get symptom relief from nonpharmacologic interventions -- that is what complementary therapies are about. So there has been a big shift in that; the United States started out with this ahead of most other countries. Australia quickly came behind, and they are very active in this. Almost all of the cancer centers in Australia have a program in integrative medicine, which includes the use of complementary modalities and the fight against quackery. Then certain parts of South America came up with it. The work in China and Japan is ongoing.

**Dr. Ernst:** Obviously your legal system is responsible for the lack of regulation. I can't comment much on that other than that it seems like a carte blanche for any entrepreneur to market bogus treatments, and that is well recognized internationally -- that America is very lax in that respect. As to the popularity of alternative treatments, I think there are many culprits, but one of the biggest ones must be the press. Journalists write so much rubbish about alternative medicine, virtually on a daily basis. The Internet is full of recommendations on alternative medicines, which, if adhered to, will only do one thing: harm the patient -- and that is pretty scandalous. We have looked into this systematically many times from different angles, and each time we have found that following the advice in lay books or from Internet sites is really a risk factor for your health. You have to remember that cancer patients typically are desperate. They look for anything they can find, and if something promises to be helpful or curative, then they will be tempted to use it. The promotion of bogus cancer "cures" is highly immoral and unethical, and in my country, Great Britain, it would be criminal. It is criminal to promise cancer cures where there aren't any.

The last point that I would like to make in this context is that, of course, mainstream oncology is not entirely innocent in all of this. [The field of oncology] often is perceived as insufficient, particularly when it comes to what we call bedside manners -- the way patients are dealt with, lack of empathy, lack of time, and so forth -- and alternative providers give all of that in high measure to our patients, so we should also be aware that the insufficiencies of mainstream medicine are a prominent cause for the popularity of alternative [therapies].

*Editor's note: This interview has been condensed and edited for clarity.*

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