

# CONVENTIONAL AND COMPLEMENTARY THERAPIES: Finding Common Ground

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– Ali Keshavarzian, M.D.

Patients tend to look favorably on complementary therapies because they’re “safe and natural.” Doctors tend to view them unfavorably because of the lack of science behind their therapeutic claims, and concern that their use diverts patients from open consideration of proven conventional therapies. But whatever your point of view—hot, cold, or in-between—complementary therapies are here to stay.

Approximately 72 million American adults reported using some form of complementary treatment in 2004, according to an epidemiological study conducted by researchers at Harvard Medical School’s Osher Institute. The numbers turn out to be similar among people with Crohn’s disease or ulcerative colitis, says Ali Keshavarzian, M.D., Director of the Division of Digestive Diseases and Nutrition at Rush University Medical Center in Chicago.

A specialist in inflammatory bowel diseases who divides his time between research and a large clinical practice, Dr. Keshavarzian surveyed his patients and found that about 40 percent use complementary and alternative medicine (CAM). “That percentage is in the same ballpark as the national average,” he says.

So what, exactly, is CAM? The National Center for Complementary and Alternative Medicine (NCCAM), a specialized research institute within the NIH, defines it as a group of diverse medical and healthcare systems, practices, and products that are not presently considered part of conventional medicine. Complementary therapies are intended to be used together with conventional treatment, while the term “alternative” implies *replacing* the treatment you receive from your doctor with one or more approaches that fall outside mainstream medicine.

“Substituting alternative therapies for medical treatment is *not* the way to go,” advises Jonathan Braun, M.D., Ph.D., Chair of the Foundation’s National Scientific Advisory Committee. “Chronic disease involves episodes of acute illness and cumulative damage. Conventional therapies are important because they demonstrably minimize the impact of these episodes. However, they are not complete solutions, which is why patients sometimes decide to explore complementary medicine in the first place.

“At best,” Dr. Braun continues, “unconventional therapies can be used to literally complement medical treatment, and possibly to help control symptoms, ease pain, and increase well-being. But many questions remain surrounding their safety, as well as their effectiveness in treating the diseases and conditions they’re supposed to treat. Open discussion with your physician will give you the opportunity to consider complementary therapies in an informed manner.”

## To Understand CAM, Use a Wide-Angle Lens

CAM is an umbrella term that encompasses a vast array of treatment options, including chiropractic, yoga, and homeopathy, to name just a few. In an effort to bring clarity to a field of health care that is as diverse as it is controversial, NCCAM divides CAM into four major domains:

- **Mind-Body Medicine:** a set of interventions that focus on the interplay between emotional, mental, social, spiritual, and behavioral factors and their influence on health. Examples: tai chi, hypnosis, meditation, biofeedback, yoga, and cognitive-behavioral therapies.

- **Biologically-Based Practices:** the use of substances found in nature to strengthen, heal, and balance the body. Examples: specific or “whole” diets, dietary supplements, fatty acids, amino acids, prebiotics, probiotics, and functional foods (see “Eating Right” on page 15).

- **Manipulative and Body-Based Practices:** approaches that involve the manipulation or movement of one or more parts of the body as a means of achieving health and healing. Examples: massage, reflexology, chiropractic and osteopathic manipulation, Rolfing, Alexander technique, craniosacral therapy, and Trager bodywork.

- **Energy Medicine:** therapies based on the use of energy fields of two types:
  - veritable, which can be measured, such as light and sound; and
  - putative, which have yet to be measured, such as qi (pronounced “chi”). Arguably the most controversial of all CAM practices, energy medicine draws on a number of traditions supporting the view that illness results from disturbances of subtle energies. Examples of practices involving veritable energy: magnetic therapy, sound energy therapy, and light therapy. Examples of practices involving putative energy: acupuncture, Reiki, Qi gong, healing touch, and Johrei.

Clearly, the four domains of CAM can overlap. Herbal therapies, for one, might be categorized as a biologically-based practice or as part of energy medicine to the extent that they stimulate the flow of putative energy, such as qi.

Continued on p26

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Moreover, many CAM practices are rooted in whole medical systems that differ in both theory and practice from what we normally think of as medicine. Instead of relying on conventionally accepted methods of diagnosis and treatment based on science, whole medical systems offer a different “take” on health and wellness, using a different set of measures, principles, and parameters as their guide.

### Whole Medical Systems: A Cross-Cultural Snapshot

Two major Asian medical systems have evolved independently from conventional Western medicine: Traditional Chinese Medicine and Ayurvedic Medicine, which developed in India.

#### *Traditional Chinese Medicine (TCM)*

Codified more than 2000 years ago, TCM is less concerned with defeating disease than with bringing the patient into balance. According to the TCM view, there are two opposing yet inseparable forces at work in the body called *yin* and *yang*. Yin represents the cold, slow, passive principle, while yang embodies the hot, excited, active complement of yin. An imbalance of yin and yang is believed to lead to a blockage in the flow of *qi* (vital energy) and of blood and lymph along pathways called *meridians*.

To bring the body back into harmony, TCM practitioners typically use a combination of herbs, massage, and acupuncture, along with moxibustion—the application of heat from the burning of the herb *moxa* at the acupuncture point. Most of the single herbs and herbal combinations used in classic TCM formulas have not been confirmed as safe and effective in Western-style clinical trials, but little by little, that has begun to change.

For example, a small placebo-controlled study of Chinese Thunder God vine extract (*Tripterygium wilfordii* Hook F) showed a positive response in patients with rheumatoid arthritis, an inflammatory disease of the joints. However, in larger, uncontrolled studies, toxic effects were observed in the cells of the kidney, heart, blood, and reproductive organs.



**Conclusion:** Chinese Thunder God vine extract is a high-risk anti-inflammatory treatment today, but if research bears out its value, it could contribute to important drug research and development tomorrow.

#### *Ayurvedic Medicine*

Also premised on the principle of balance, Ayurveda is a comprehensive medical system that began with the development of meditation and yoga in ancient times. It aims to integrate mind, body, and spirit, an approach that will lead to contentment, health, and the prevention of disease, according to its proponents. In Ayurveda, the alleged healing properties of food are recognized and incorporated into medical care. Ayurvedic practitioners use treatments based on herbs, oils, spices, and other naturally occurring substances as part of a multi-pronged strategy to eliminate impurities, ease physical and psychological symptoms, and foster harmony in a patient’s life.

Treatments may also include fasting, yoga, meditation, massage (sometimes with medicinal oils), controlled breathing, sun exposure, and the ingestion of

small amounts of metal and mineral preparations. Note, however, that health experts in India and elsewhere have expressed concerns over some Ayurvedic practices—especially those involving herbs, metals, and minerals. Toxicity and dangerous interactions have been reported, and there has also been a lack of sufficiently large and well-designed clinical trials of Ayurvedic formulas.

**Conclusion:** Some Western patients may benefit from Ayurveda, and most Ayurvedic therapies—especially yoga, meditation, and controlled breathing—can be safely integrated into conventional medical treatment. However, if you have Crohn’s disease or ulcerative colitis, you should avoid taking Ayurvedic formulas unless your IBD specialist gives you the green light to do so.

On reviewing TCM and Ayurveda, it’s easy to conclude that alternative medical systems go hand in hand with non-Western cultures and traditions. But NCCAM names two major systems that were born in Europe yet share philosophical and practical common ground with their Asian counterparts.

#### *Naturopathy*

Naturopathy is a whole medical system that views disease as a reflection of changes in the body’s natural ability to heal itself. Like TCM and Ayurveda, it stresses health restoration and the prevention and treatment of disease. Naturopathy, or naturopathic medicine, is practiced today throughout Europe, Australia, New Zealand, Canada, and the United States. It’s a gentle, holistic system based on the following six principles:

Continued on p28



- The healing power of nature
- The identification and treatment of the cause of disease
- The concept of “first do no harm”
- The concept of doctor as teacher
- Treatment of the whole person
- Prevention

Naturopathic therapies may include diet modification and nutritional supplements, herbal medicine, acupuncture and Chinese medicine, hydrotherapy, massage and joint manipulation, and lifestyle counseling.

Although there have been virtually no research studies on naturopathy as a whole medical system, a small number of studies of naturopathic botanicals have been published. Among the most widely publicized was a 2003 study of Echinacea in 524 children, which found that the widely used herb was not effective in treatment of colds. In a smaller trial that same year, however, researchers observed that an extract containing Echinacea might be beneficial for treating ear pain associated with acute otitis media.

**Conclusion:** The Echinacea story is far from over. It may not be a cure for the common cold, but its healing potential still merits scientific attention, as do a number of other naturally occurring remedies.

#### Homeopathy

Homeopathy is another European whole medical system, founded by German physician Samuel Christian Hahnemann in the late 18th century. Using the “principle of similars” as his starting point, Hahnemann observed that taking a particular drug or substance sometimes produced symptoms similar to those seen in certain diseases. It’s not unlike the principle behind the development of vaccines, in which a non-toxic, small amount of a disease pathogen is introduced to help the body produce antibodies to that disease. Generally, that’s how vaccines work to produce immunity and prevent the development of polio, tetanus, typhoid, and a host of potentially deadly childhood diseases.

The big difference in homeopathy is the *dose*. Homeopathic treatments are administered in very tiny, potentially nonexistent doses, based on Hahnemann’s theory that, with the subtlest prodding, the body will “learn” to fight disease.

The scientific community has viewed homeopathy with skepticism all along. Recently, however, five systematic reviews, published in such journals as *The Lancet* and *The Annals of Internal Medicine*, have evaluated clinical trials of homeopathy remedies, with mixed results. The reviews found that the overall quality of clinical research in the field is low. But when high-quality studies were singled out for analysis, a surprising number showed positive results.

**Conclusion:** Most homeopathic treatments are administered in such tiny doses that they are unlikely to be harmful and may even be helpful. Nonetheless, if you’re considering adding homeopathy to your treatment regimen, discuss the matter thoroughly with your doctor.

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#### The Twain Shall Meet

Some doctors consider CAM a harmless body of placebo-like treatments while others charge the field with outright quackery—but Dr. Keshavarzian believes the medical profession ignores complementary medicine at its own peril.

“When it comes to CAM,” he says, “there’s a huge gap between patients and physicians, a gap that’s ripe for exploitation and misunderstanding. Complementary treatments and services are a large yet often hidden section of our healthcare system. That’s precisely why I decided to look into them and try to make a positive contribution.”

At first, his biggest challenge was where to start: “The language of CAM is different from that used in Western medicine. Instead of thinking in terms of managing or curing disease, CAM practitioners speak about wellness, balance, and energy flow. As a physician grounded in science, I needed to find some point of entry that would allow me to explore complementary medicine with the tools and language available to me.” That point of entry turned out to be the study of *free radicals*.

Free radicals are created when an atom’s chemical bonds split, depriving it of an electron. The atom thus becomes unstable. To regain its biochemical foothold, the free radical will go after the nearest stable molecule and “steal” its electron. But the reaction doesn’t stop there. When the “attacked” molecule loses an electron, a new free radical is created and a chain reaction begins. In time, the accumulation of

free radicals can disrupt the life of the cell—and cell biology is of major interest to conventional and complementary medical practitioners alike.

In the 1980s, many so-called natural products were being promoted as antioxidants, said to fight the damaging effects of free radicals. Dr. Keshavarzian’s group was one of the first to study the effects of free radicals on inflammatory bowel disease, the first of many subsequent studies at the interface of two medical paradigms that some view as irreconcilable.

But not to Dr. Keshavarzian. Interestingly, his research doesn’t always focus directly on complementary treatments. In dozens of studies, he has probed the effects of environmental variables on the disease process in ulcerative colitis and Crohn’s disease, such as alcohol, stress, and disrupted sleep. At present, he is studying the effect of stress control on the course of ulcerative colitis. Dr. Ece Mutlu, one of his colleagues, is looking at the possible relationship between diet and intestinal bacteria. The group is also investigating the possible protective effects of an anti-inflammatory herbal mixture in Crohn’s disease. And the list goes on.

At the same time, Dr. Keshavarzian continues to serve as principal investigator for conventional clinical trials of novel pharmaceutical agents that hold promise in the fight against ulcerative colitis and Crohn’s disease.

“It wasn’t long ago that such treatments as cognitive-behavioral therapy and probiotics were considered ‘alternative,’” he says. “Today, they’re being actively studied, and many Western

physicians recognize them as valid and valuable treatment options.

“Every patient is an individual,” he adds, “and that’s how I approach treatment. In my practice, I get to know my patients’ hopes, fears, and anxieties. If they’re young, I learn about their relationships and their issues around marriage, sexuality, pregnancy, child-bearing, and parenting. Patients can’t be boiled down to their level of gut inflammation, and helping them feel better and get better isn’t always about medication and surgery. So if a patient wants to try a supplement, for example, and if I determine that it’s not harmful, that’s fine.”

In the meantime, Dr. Keshavarzian intends to keep exploring the common ground between conventional medicine and CAM, hoping to map the terrain, discover its possible benefits, and keep it as safe as possible for all of us. ■

#### Margaret W. Crane

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Continued on p31