

Integrative Medical Care

Medical Reviewers:

Donald Abrams, MD

Chief of hematology/oncology, San Francisco General Hospital and Director of Integrative Oncology Research, University of California, San Francisco Osher Center for Integrative Medicine

David Rosenthal, MD

Medical Director, Leonard P. Zakim Center for Integrative Therapies, Dana-Farber Cancer Institute

Kathleen Wesa, MD

assistant attending physician, Integrative Medicine Service, Memorial Sloan-Kettering Cancer Center

The concept of holistic medicine is rooted in the belief that when one part of the body or mind is not functioning properly, the health of the whole person is affected and, therefore, therapies that treat the mind, body and spirit are necessary to make the person well. Over the years, holistic medicine has morphed into two general categories: alternative and complementary, commonly identified by the acronym CAM (complementary and alternative medicine), although medical experts say the term is problematic for cancer patients because, while there are distinct differences between the categories, patients often confuse the two approaches. Alternative therapy refers to unproven or disproven treatments that are used in place of standard or proven therapy, and complementary therapy is used in conjunction with standard medicine to help improve a patient's quality of life and relieve chemotherapy and radiation side effects.

The good news for lymphoma patients is that many lymphomas are treatable and curable with conventional medical care and patients should never consider alternative medicine treatment for cancer, despite the "natural" cancer cure claims found on the Internet and elsewhere.

If you are interested in developing an integrative treatment plan, talk to your healthcare team about what might work best for you based on medical evidence and experience. And tell your medical team about any dietary supplements and vitamins you are taking and ask about potential conflicts or interference with your treatment.

Types of Integrative Medicine Used in Cancer Care

Integrative medicine combines traditional cancer care with a vast array of complementary therapies, including biologically-based products like herbs, botanicals and vitamins; acupuncture and massage; mind/body relaxation techniques such as Reiki, yoga, meditation and guided imagery; and health-related prayer to alleviate treatment side effects and, in some cases, to even improve disease outcome. Some oncologists now incorporate both standard cancer care and complementary medicine in the treatment of lymphoma.

The Role of Integrative Medicine in Lymphoma

While the use of unorthodox remedies to treat illness has a long history in the United States, it was not until 1992 when the National Institutes of Health launched the Office of Alternative Medicine, now called the National Center for Complementary and Alternative Medicine (NCCAM), that the study of alternative and complementary therapy gained real legitimacy in traditional medicine. Since 1999, NCCAM has funded more than 2,200 research grants, including 370 that involved the treatment of cancer. Besides NCCAM, many major academic cancer centers, including Memorial Sloan-Kettering Cancer Center, Dana-Farber Cancer Institute, MD Anderson Cancer Center, the University of California at San Francisco and the Mayo Clinic, have also launched clinical studies in complementary therapies for cancer.

Complementary therapies are showing benefits in the management of lymphoma and are currently used to reduce disease symptoms and relieve treatment side effects. For example, acupuncture (the ancient Chinese practice of inserting thin needles into specific parts of the body) has been found to alleviate nausea and vomiting and may aid in sleep and increase energy levels in some patients (see “How Integrative Medicine Helps,” below).

There is also evidence that body-based practices such as massage therapy can be instrumental in reducing pain and producing a sense of well-being in lymphoma patients. However, before undergoing any type of massage therapy, check with your oncologist to make sure your blood counts are normal and that you do not have lymphedema (localized fluid retention caused by a compromised lymphatic system) or any other medical problem that would prohibit you from getting a massage. Ask your medical team to recommend a qualified massage therapist with experience in treating lymphoma patients. If you plan on using a massage therapist outside of your cancer center, check to see whether the person has had experience in treating cancer survivors and that she or he has received advanced training, preferably endorsed by the National Certification Board for Therapeutic Massage and Bodywork or by the American Massage Board Association.

How Integrative Medicine Helps

- **Acupuncture**—Studies show that acupuncture can relieve pain, nausea, fatigue, hot flashes and neuropathy (numbness and tingling in the feet and hands) associated with chemotherapy and can help decrease mild depression. Performed using ultra-thin needles applied to specific points on the body, acupuncture is safe and generally painless.
- **Mind/Body techniques**—Meditation, guided imagery and self-hypnosis are all methods used to manage stress. Yoga and Tai chi minimize stress and improve balance and flexibility.
- **Touch therapies**—Massage, reflexology (foot massage) and Reiki involve applying therapeutic pressure to the body to restore a sense of harmony, relaxation and well-being.

What to Avoid

While some complementary therapies like meditation, acupuncture and therapeutic massage have been found to be safe and effective in providing symptom relief from cancer treatment, others, such as the use of botanicals, herbs, vitamins and antioxidants, may actually be harmful, rendering some chemotherapy agents and radiation therapy less effective and more toxic. At the forefront of the controversy is the high-dose use of over-the-counter antioxidant supplements like vitamins A, C and E. Even antioxidant-rich drinks like green tea and pomegranate juice have come under scrutiny over concerns that they may reduce the effectiveness of chemotherapy and radiation therapy, although there is no conclusive proof.

For example, radiation and many chemotherapies like the alkylating agents cyclophosphamide (Cytoxan) and nitrogen mustard act by interfering with the oxidative process around the cells and there is some preclinical evidence to suggest that antioxidants prevent that oxidative process from taking place.

Until more definitive research is done, medical experts recommend that lymphoma patients avoid using antioxidants and dietary supplements, even in low doses, and refrain from drinking juices high in antioxidants, including cranberry, pomegranate, acai, goji or mangosteen while in active radiation or chemotherapy treatment.

One area of complementary medicine that is getting a lot of study is the efficacy, safety and toxicity of combining botanicals and herbs with conventional chemotherapy.

For example, researchers at the National Cancer Institute are looking at the interaction between the botanical St. John’s wort and some common chemotherapy agents and their results are showing a reduction in treatment effectiveness when used together. The reason may be due to the fact that both St. John’s wort and chemotherapy drugs compete for the same metabolic pathway in the liver.

The Importance of a Healthy Diet and Exercise

Although taking over-the-counter dietary supplements should be avoided during lymphoma treatment, eating a nutrient-rich diet is essential to maintaining stamina, supporting immune function and reducing the side effects of lymphoma treatment. A diet high in nutrients, especially one that contains plenty of Omega 3 fatty acids, can also reduce inflammation in the body, blunting the growth

of new blood vessels (angiogenesis) and accelerating cell death (apoptosis). Omega 3 fatty acids can be found in the following foods:

- Deep cold water fish such as salmon, albacore tuna, mackerel and sardines
- Organic eggs
- Walnuts

Experts also recommend following the USDA Food Guide Pyramid (mypyramid.gov) to maintain a healthy diet while undergoing cancer therapy, including eating plenty of fruits and vegetables—at least two to four servings of fruits and three to five servings of vegetables a day—whole grains and chicken. Maintaining a regular exercise program most days of the week is also recommended to help reduce fatigue and stress and build muscular strength. However, before starting or resuming any exercise program, talk with your doctor to see how much and what types of activity are most appropriate for you.

Vitamin C and Its Potential Effect on Non-Hodgkin Lymphoma

A phase II clinical trial using intravenous high-dose vitamin C for patients with refractory non-Hodgkin lymphoma (NHL) was recently launched at the Jefferson-Myrna Brind Center of Integrated Medicine at the Thomas Jefferson University and Hospital in Philadelphia, Pennsylvania, to determine whether the treatment can slow the disease from progressing after first-line treatment has failed. The study hypothesis is that taken intravenously, vitamin C diffuses into the extracellular space outside the blood stream and converts to hydrogen peroxide, which causes apoptosis, or cell death, in certain types of cancers. Intravenous vitamin C may be effective in non-Hodgkin lymphoma because NHL cells do not process hydrogen peroxide.

Although a phase I study of intravenous high-dose vitamin C in patients with various types of cancer has already been completed and showed the treatment to be safe and nontoxic, a recent laboratory study by researchers at Memorial Sloan-Kettering Cancer Center of the effects of vitamin C on cancer cells found that the supplement reduced the effectiveness of chemotherapy drugs. In another set of experiments in which mice were implanted with cancer cells, the researchers found that the tumors in mice implanted with cancer cells pretreated with vitamin C grew more quickly than tumors in mice not pretreated with vitamin C.

Until more is known about the effect vitamin C and other antioxidants have on cancer and cancer treatment, your best bet is to stick to a healthy diet to get the nutrients you need rather than rely on dietary supplements.

Questions to Ask Your Doctor

- Am I a candidate for integrative medicine?
- What types of integrative medicine would be most beneficial for me?
- How much physical activity should I have each day?
- What food and drinks should I consume and which ones should I avoid?

Additional Resources

To learn more about integrative medicine and the research that is being done, visit these websites:

- **American Cancer Society Complementary and Alternative Methods for Cancer Management** (cancer.org/docroot/ETO/content/ETO_5_1_Introduction.asp) This page of the American Cancer Society contains a primer on alternative and complementary approaches to cancer care, questions to ask your healthcare provider and how to spot quackery and fraud.
- **MD Anderson Cancer Center's Complementary/ Integrative Medicine Education Resources** (mdanderson.org/departments/cimer) This website provides links to research studies on a variety of complementary/integrative and alternative cancer therapies and clinical trials in integrative oncology at the cancer center.
- **Memorial Sloan-Kettering Cancer Center** (mskcc.org/aboutherbs) Here you'll find evidence-based information and current research on herbs, botanicals and dietary supplements.
- **National Center for Complimentary and Alternative Medicine** (nccam.nih.gov) Published by the National Institutes of Health, this website provides a list of clinical trials, information on complementary and alternative therapies and how to be an informed consumer.
- **Quackwatch** (quackwatch.org) This comprehensive site contains information about questionable cancer treatment claims and tips on how consumers can protect themselves against fraud.

Contact Us

For more information about *Getting the Facts* or information about the

LYMPHOMA
RESEARCH • FOUNDATION

Please contact:

National Office

115 Broadway, 13th Floor
New York, NY 10006
(212) 349-2910
(212) 349-2886 fax

Helpline: (800) 500-9976
Helpline@lymphoma.org

Website: lymphoma.org

Email: LRF@lymphoma.org

The Lymphoma Research Foundation offers a comprehensive slate of patient education and support programs including

- *Lymphoma Helpline & Clinical Trials Information Service*
- *Lymphoma Support Network*
- Publications and newsletters
- Informational teleconferences and webcasts
- In-person conferences
- National Chapter Network

©2009 Lymphoma Research Foundation

Getting the Facts is published by the Lymphoma Research Foundation for the purpose of informing and educating readers. Because each person's body and response to treatment is different, no individual should self-diagnose or embark upon any course of medical treatment without first consulting with his or her physician. LRF is not responsible for the medical care or treatment of any individual.

Last Updated July 2009

Glossary of Terms

Acupuncture The ancient Chinese practice of inserting ultra-thin needles into specific parts of the body, acupuncture is safe and generally painless.

Guided imagery The use of the imagination to connect to your inner resources for healing. This practice can reduce anxiety and pain and boost the immune system.

Integrative medicine The practice of incorporating various complementary therapies into traditional medical care for a more holistic approach to the healing of mind, body and spirit.

Meditation A relaxation technique that helps achieve a state of relaxation, inner harmony and increased mental awareness through focusing on the breath, a word, an object or a silent prayer.