The mission of the Integrative Medicine Program is to optimize health, quality of life and clinical outcomes through integrative medicine education and research-driven clinical care.

Omega – 3 Fatty Acids: Their role in cancer prevention and treatment

By Peiying Yang PhD | Assistant Professor, General Oncology, MD Anderson and Lorenzo Cohen, PhD | Professor and Director, Integrative Medicine Program

Omega-3 fatty acids (ω-3 FAs) come from two main sources: 1) Eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) are derived from fish and fish oils and 2) Alpha-linolenic acid is abundant in green leafy vegetables, flaxseed and rapeseed (canola) oils. These essential fatty acids can only come from a healthy diet and cannot be made by the human body. Generally, ω-3 FAs are considered natural anti-inflammatory agents as they help to regulate inflammatory pathways. Extensive research supports the protective role of marine-derived ω-3 FAs in decreasing risk factors for cardiovascular disease, heart attacks and sudden cardiac death. As a result, the FDA has approved one specific fish oil supplement, Lovaza (containing both EPA and DHA in an ethyl ester form versus the more common triglyceride form), for the treatment of hypertriglyceridemia (a condition in which triglyceride levels are elevated). Unlike the beneficial effects of ω-3 FAs in cardiovascular disease, the role of ω-3 FAs for cancer prevention and treatment remains uncertain. Most preclinical studies show that ω-3 FAs decrease cancer cell growth and induce apoptosis (programmed cell death) in various cancer types including solid and hematological tumors.

Population-based studies have found that fish consumption is inversely associated with the risk of various malignancies, including lung, colon, prostate, breast, and pancreatic (i.e., as fish consumption goes up the risk of cancer goes down). Studies comparing people with prostate cancer to those without prostate cancer suggest marine derived ω-3 FAs may be protective against aggressive prostate cancer. ω-3 FAs may also be important in helping with symptom control. A recent study found that high intake of ω-3 FAs was associated with decreased inflammation and lower levels of fatigue in breast cancer survivors. Population-based studies, however, do not necessarily equate to causation and clinical trials are needed in this area. One such clinical trial found that the EPA free fatty acids (6 months of treatment) decreased the formation of colon polyps by 22.6% in people with familial adenomatous polyposis, who have an increase risk of developing colorectal cancer. Thus, ω-3 FA could potentially prevent cancers, especially those associated with chronic inflammation including colon, lung, and pancreatic cancer.

To fully evaluate the role of ω-3 FA in cancer management, more rigorous systematic studies need to be conducted. The National Institute for Health is funding a $20 million dollar study to explore if vitamin D and fish oil (EPA and DHA in an ethyl ester form), the VITAL study, can reduce the risk for developing cancer, heart disease, and stroke. This large trial, and many other ongoing clinical trials using other forms of ω-3 FA, will help determine the role of ω-3 FA in cancer prevention and treatment.
Physical

Awareness Through Movement (Feldenkrais) – Learn how movement can help improve your capacity to function in your daily life.
Underwritten by Houston Endowment Foundation through the C. G. Jung Education Center.

Everything You Wanted to Know About Tea – Join one of four Certified Tea Masters in the nation to sample and learn about tea and the benefits of each type.

Guest Chef – Local chefs demonstrate their cooking skills and provide tasty samples for the audience. Clinical Dieticians also discuss the nutritional component of the recipe.

Nutrition Lecture – Learn about the special nutritional needs for cancer patients, information on organic foods, and more.

Nia: Body Energizer – Explore this gentle, yet lively, restorative movement class. The class incorporates techniques from yoga, tai chi, and Nia dance (play).

Pilates – Come learn and practice a series of exercises in deep muscle strengthening that improve skeletal alignment and overall flexibility.

Tai Chi – Find balance and strength through continuous flowing movements that link mind to body.

Yoga/Nia – Body Energizer – Warm up with a playful musical beat of guided movement. Then come centered using yoga postures and breathing techniques.

Mind-Spirit

Aromatherapy & Self-Massage – Learn about essential oils and their therapeutic uses.

Exploring Music for Relaxation – Learn relaxation techniques using recorded music.

Finding Reliable Health Information – Explore authoritative online resources to help make evidence based medical decisions.

Intro to Centering Prayer – Practice a contemplative or silent meditative prayer

Kundalini Yoga Meditations for Specific Symptoms – Learn to use various combinations of breath work, sound, and meditative focus to alleviate specific symptoms.

P.I.K.N.I.C. – An educational forum for patients, caregivers, family members, volunteers, faculty and staff who want to learn more about issues relevant to cancer.

Tibetan Bon Meditation – Learn to relax and access a deeper awareness through connecting your mind, body, and heart through practices of breath and sound.

Yoga (Hatha) – Stretch your mind as well as your body by learning the postures, breathing exercises, and meditation.

Yoga (Kundalini) – Explore this spiritual and meditative practice that increases flexibility, brings emotional balance, mental clarity, stress relief and personal transformation.

Qigong – Experience this ancient Chinese system of self care using meditation, breath, and movement to balance the body’s energy flow.

Social

The Celebration Singers – Are you a cancer survivor or caregiver who enjoys singing? If you are, this special choir is for you! Please contact Michael Richardson at 713-563-0858 for rehearsal information.

Expressive Arts – Classes include: Paint Your Own Pottery, Beading Class, Shibori, Chinese Ink Art, and much more!
Underwritten by COLLAGE: The Art for Cancer Network

Laughter for Health – A blend of deep breathing, stretching, and simulated laughter exercises that may help reduce stress, depression and more.

Look Good, Feel Better – Licensed cosmetologists help patients adjust to temporary or permanent changes in their appearance. MUST pre-register at (713) 792-6039.

Support Groups – Professionally-led support groups provide education, and sharing for patients, family and friends. For a complete list of support groups, please call the Social Work department at (713) 792-6195.

Please call 713-794-4700 to sign up for a class.

ALL CLASSES ARE FREE.
### Group programs are open to patients, survivors, caregivers and families regardless of where treatment is received.
Individual Clinical Services

Please ask your MD Anderson physician to submit an online consultation request if you would like to schedule these services. For additional details, please call 713-794-4700.

Consultation Service
Our physicians will provide guidance on a comprehensive and integrative approach to your cancer care. Most insurance plans will cover the cost of your consultation.

Acupuncture
Acupuncture is a safe and often effective medical treatment that can be used to manage side effects from cancer and related treatments, including: nausea & vomiting, pain, neuropathy, hot flashes, fatigue, dry mouth. Services are by appointment and limited to MD Anderson patients. Our fees are:
- Initial Assessment & First Treatment – $80.00
- Each Follow-up Treatment – $65.00

Oncology Massage
Massage therapy may help patients relax and improve sleep quality. It may also relieve fatigue, pain, anxiety, and nausea. Services are by appointment for patients and their caregivers. Our fees are:
- Inpatient Brief Relaxation bedside massage limited availability - NO COST
- Assessment & massage ½ hour–$30.00; One hour–$60.00

Music Therapy
Benefits of Music Therapy include: relaxation, creating calming environments, encouraging self expression, reducing stress, improving coping skills, and implementing protocols to improve cognitive, motor, communication and socialization skills. There is NO COST for this service.

Nutritional Consultation
Nutritional counseling to help you assess, plan, and reach nutritional goals with an emphasis on cancer prevention and control and an overall healthy lifestyle based on whole foods. There is NO COST for this service.

Meditation Consultation
Learn to relax and access a deeper awareness through connecting your mind, body, and heart through practices of breath and sound. There is NO COST for this service.

Online Resources:
Integrative Medicine Program Videos, CIMER and more!
We have a large selection of online resources at mdanderson.org/CIMER.
Be sure to check out the videos on our Multimedia page including:
Chemobrain: Is It Real?, Aromatherapy: It Makes Sense for Cancer Patients, Gentle Chair and Bedside Yoga, Safe Massage Techniques for the Cancer Patient, Tibetan Bon Meditation, plus much more!

8th Annual Oncology Training Conference for Acupuncturists, Massage Therapists, and Yoga Teachers
July 18-20, 2012
The University of Texas MD Anderson Cancer Center
8th Floor Conference Center, Dan L. Duncan Building (CPB)
1155 Pressler Street, Houston, Texas
For information, Department of CME/Conference Management at 713-792-2223 or visit our website at www.mdanderson.org/conferences.