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The Food Issue

PUTTING AMERICA'S DIET ON A DIET

Can Jamie Oliver Get One of America's Unhealthiest Towns to Eat Better? BY ALEX WITCHEL

20 Dietary Dos and Don'ts BY MICHAEL POLLAN The Calorie-Restriction Experiment BY JON GERTNER

California's Food Banks Go Locavore BY DOUGLAS McGRAY Wheat Bread for the Gluten-Shy BY CHRISTINE MUHLKE

Against Meat BY JONATHAN SAFRAN FOER Where Development Does Not End Malnutrition BY DAVID RIEFF

From I.T. to Table BY MARK BITTMAN



spine, brain, bladder, esophagus, liver bone. It can be used as the sole curative treatment as well as in combination with chemotherapy, surgery or both. When used in combination treatment, radiation therapy is often used first to shrink a tumor to make surgical removal possible. Another advantage of IGRT is that fewer treatment sessions may be necessary because the radiation team is able to guide the radiation with great precision so that higher doses of radiation can be delivered while sparing healthy tissue. Treating tumors that have metastasized to the spine from other organs is a particular challenge because physicians must deliver a radiation dose strong enough to destroy the cancer while at the same time sparing the spinal cord. For many, IGRT helps achieve this goal. "IGRT is also being used as a palliative treatment — a treatment that improves a patient's quality of life but doesn't cure the cancer," says Dr. Gewanter. "For example, patients with metastatic spine tumors often experience significant back pain but may not be candidates for surgery for a variety of reasons. For them, IGRT treatments can alleviate the pain and loss of function, so that their quality of life improves."

In addition to radiation oncology, the centers at Rockville Centre and Commack offer surgical oncology services and access to clinical trials. Social workers provide counseling and support to patients and their families. In addition to regular support groups, patients may take part in the Look Good... Feel Better program, which helps cancer

TECHNOLOGY ENSURES THAT RADIATION TARGETS THE TUMOR AND SPARES HEALTHY SURROUNDING TISSUE.

patients cope with the effects that cancer can have on their appearance. Community outreach is another priority, says Dr. Gewanter. "Our staff meets with support groups and organizations to give them the latest information about risk reduction, diagnosis and treatments."

Memorial Sloan-Kettering Cancer Centers
www.mskcc.org/longisland



Family history, age and gender are all factors in breast cancer, which can afflict women and men.

STUDY EXAMINES POWER OF EXERCISE TO PREVENT BREAST CANCER

GENDER AND ADVANCED AGE are the strongest risk factors for breast cancer, but family history is important, too. The American Cancer Society estimates that about 15 to 20 percent of breast cancers occur in women with some family history of the disease. In general, the younger they were when diagnosed, the greater the woman's risk. The stakes are especially high for women who carry BRAC genetic mutations; as many as 80 percent of them will develop breast or ovarian cancers during their lifetimes.

A new study by researchers at the University of Pennsylvania School of Medicine in Philadelphia seeks to learn whether women at high risk of breast cancer can use exercise to

meaningfully reduce their risk of getting the disease. Funded by the National Cancer Institute, the WISER (Women in Steady Exercise Research) Sister study will investigate two different levels of regular treadmill exercise as a possible intervention for breast cancer risk reduction.

"Previous studies have found that reducing estrogen in the body reduces cancer risk, and that elite female athletes experience a drop of estrogen levels that often cause them to stop ovulating and menstruating," says Dr. Kathryn Schmitz, an assistant professor in the Center for Clinical Epidemiology and Biostatistics who is leading the new study in partnership with Dr. Susan Domchek, director of the Cancer Risk Evaluation Program of the Abramson Cancer Center of the University of Pennsylvania, a national leader in cancer research, patient care and education. "We came up with this study because the options for risk reduction for women at high risk for breast cancer because of a family history are drastic and few."

AN UPDATE ON COLORECTAL CANCER

Join Memorial Sloan-Kettering physicians as they discuss the up-to-date information on screening and treatment of colorectal cancer. The lecture will focus on risk reduction, screening guidelines, surgical treatment and radiation therapy.

The free seminar will take place on November 12, 2009, from 6:00 to 7:30 PM at Memorial Sloan-Kettering's Rockefeller Research Laboratories, 430 East 67th Street, Manhattan. For reservations, call the CancerSmart Infoline at (212) 639-3074 or register online at www.cancersmart.org.

Prophylactic mastectomy, surgical removal of one or both breasts, and prophylactic oophorectomy, surgical removal of the ovaries, decrease a woman's risk. "These procedures are highly effective for those who have the BRAC genetic mutations," says Dr. Schmitz. "Preventive mastectomy slashes a carrier's breast cancer risk by 90 percent, while prophylactic oophorectomy halves their breast cancer risk and reduces their chances of getting ovarian cancer by about 85 to 90 percent." (The procedures are not recommended for women who have a family history of the disease but lack the genetic mutations.)

Despite the procedures' effectiveness, however, many women at genetic risk are reluctant to have them done because of the impact on their body image, sexuality and self-esteem.

WOMEN WITH FAMILY HISTORY MAY CUT THEIR RISK THROUGH REGULAR WORKOUTS.

"Removing the ovaries ends a woman's ability to have children, which is upsetting to women who want to become mothers," says Dr. Schmitz. "The decision to have these surgeries is so difficult that many women delay them, sometimes with terrible consequences. We would like to find out if exercise could buy high-risk women time they need to more safely think through their options."

Over the next three years, Dr. Schmitz's team will enroll 160 women ages 18 to 40 who have an elevated risk of getting breast cancer based on their family history of the disease. BRCA carriers will be included among eligible women. However, participants will not be required to undergo genetic testing. The investigators plan to use their findings to offer effective exercise guidelines for high-risk women. Unlike surgery, exercise is a low-cost intervention with few side effects, so Dr. Schmitz is hopeful that the study results will offer risk-reduction tools to a larger swath of high-risk women, including minorities and other groups that may be underserved or lack access to genetic testing or proper early screening.

Although it is unknown how much the exercise interventions tested in the trial will reduce estrogen exposure, Dr. Schmitz says even evidence of marginal risk reduction — that exercise may help delay breast cancer onset, decrease breast density to improve the accuracy of early screening tests, or result in smaller tumors — could be of help to women planning risk-reduction strategies during their 20s and 30s.

Trial participants will be placed into three randomized groups who will be followed for seven months. Each participant will receive a treadmill to use at home, which she will get to keep after the study is over. A "low dose" group will complete 150 minutes of exercise each week, the same amount recommended for general health and fitness, while a "high dose" group will do 300 minutes of exercise each week, similar to the workouts recommended for weight control. A third group, serving as the control, will continue doing their usual activities for the duration of the study and will receive the treadmill at the study's completion.

"It is frightening to face high risk for breast cancer at a young age," says Dr. Schmitz. "Young women may not even want to approach the issue of getting genetic testing yet, but may want to do something. The WISER

Sister study offers those women an option. The benefits of the study will have a ripple effect to other good health habits too, by helping women adopt a regular exercise regimen."

The University of Pennsylvania School of Medicine, founded in 1765 as the nation's first medical school, and the University of Pennsylvania Health System are part of PENN Medicine, a \$3.6 billion enterprise dedicated to the related missions of medical education, biomedical research and excellence in patient care. The University of Pennsylvania Health System includes its flagship hospital, the Hospital of the University of Pennsylvania; Pennsylvania Hospital, the nation's first hospital; and Penn Presbyterian Medical Center, as well as a primary-care provider network and other facilities.

**The University of Pennsylvania
School of Medicine**
bmc.upenn.edu/wiser



A lifetime of regular exercise may reduce a risk of breast cancer later in life.

NEW DIRECTIONS FOR BLOOD CANCER THERAPIES

Join the Leukemia & Lymphoma Society for a free patient program on new therapies a clinical trials for blood cancers. Dr. Pamela R. Drullinsky, a medical oncologist, will be speaker. The program will take place at 6:30 p.m. on Nov. 17, 2009, at Memorial Sloan-Kettering Cancer Center at Mercy Medical Center, 1000 N. Village Ave., Rockville Centre, N.Y. (Registration at 6 p.m.) For more information or to register in advance, contact Karen DeMairo, Senior Patient Services Manager, the Leukemia & Lymphoma Society, 631-75-8500 or Karen.demairo@lls.org.