

DEFEAT Cancer

CURRENT PEER-REVIEWED MEDICAL LITERATURE and MEDIA COMMENTS on EXERCISE & NUTRITION during/after CANCER

September 2007

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Exercise

Exercise, yoga helps breast cancer patient

Sept. 5, 2007

Alberta, Sept. 5 (UPI) -- Resistance training and yoga have proven beneficial to women with early-stage breast cancer, Canadian and U.S. researchers found.

"Breast cancer patients can exercise while they're receiving chemotherapy and achieve meaningful benefits in terms of physical fitness, body composition and self-esteem," lead author Kerry Courneya, of the University of Alberta, said in a statement.

Courneya divided women into three groups: supervised resistance exercise three times weekly, supervised aerobic exercise three times weekly and no aerobic or resistance exercise, also known as the "usual care" group. The median duration of chemotherapy and exercise was 17 weeks.

The study found that resistance exercise was better than usual care for improving muscle strength, lean body mass and self-esteem, while aerobic exercise was better than usual care for improving aerobic fitness, self-esteem and body fat percentage.

In a second study, lead author Alyson Moadel, of Albert Einstein College of Medicine, in New York, found women being treated for early-stage breast cancer, who did yoga, had better quality-of-life compared to breast cancer patients who did no yoga.

The findings were reported in the *Journal of Clinical Oncology*

Nutrition

Association of dietary patterns with cancer recurrence and survival in patients with stage III colon cancer

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JAMA. 2007;298:754-764.

Context Dietary factors have been associated with the risk of developing colon cancer but the influence of diet on patients with established disease is unknown.

Objective To determine the association of dietary patterns with cancer recurrences and mortality of colon cancer survivors.

Design, Setting, and Patients Prospective observational study of 1009 patients with stage III colon cancer who were enrolled in a randomized adjuvant chemotherapy trial (CALGB 89803) between April 1999 and May 2001. Patients reported on dietary intake using a semiquantitative food frequency questionnaire

during and 6 months after adjuvant chemotherapy. We identified 2 major dietary patterns, prudent and Western, by factor analysis. The prudent pattern was characterized by high intakes of fruits and vegetables, poultry, and fish; the Western pattern was characterized by high intakes of meat, fat, refined grains, and dessert. Patients were followed up for cancer recurrence or death.

Main Outcome Measures Disease-free survival, recurrence-free survival, and overall survival by dietary pattern.

Results During a median follow-up of 5.3 years for the overall cohort, 324 patients had cancer recurrence, 223 patients died with cancer recurrence, and 28 died without documented cancer recurrence. A higher intake of a Western dietary pattern after cancer diagnosis was associated with a significantly worse disease-free survival (colon cancer recurrences or death). Compared with patients in the lowest quintile of Western dietary pattern, those in the highest quintile experienced an adjusted hazard ratio (AHR) for disease-free survival of 3.25 (95% confidence interval [CI], 2.04-5.19; P for trend <.001). The Western dietary pattern was associated with a similar detriment in recurrence-free survival (AHR, 2.85; 95% CI, 1.75-4.63) and overall survival (AHR, 2.32; 95% CI, 1.36-3.96), comparing highest to lowest quintiles (both with P for trend <.001). The reduction in disease-free survival with a Western dietary pattern was not significantly modified by sex, age, nodal stage, body mass index, physical activity level, baseline performance status, or treatment group. In contrast, the prudent dietary pattern was not significantly associated with cancer recurrence or mortality.

Conclusions Higher intake of a Western dietary pattern may be associated with a higher risk of recurrence and mortality among patients with stage III colon cancer treated with surgery and adjuvant chemotherapy. Further studies are needed to delineate which components of such a diet show the strongest association.

Diet tied to colon cancer's return

REUTERS NEWS SERVICE

August 15, 2007; Page D4

Colon-cancer survivors with diets heavy in red meat and fatty foods are more than three times as likely to suffer a recurrence of their disease or die from it than those who avoid such foods, a study found.

Previous studies had shown that a high-fat diet, especially one with lots of red meat, may increase a person's risk of developing colon cancer, a leading cancer killer.

This study, published yesterday in the Journal of the American Medical Association, was the first to show how diet affects whether colon cancer returns in people previously treated for it, the researchers said.

The study tracked 1,009 people treated with both surgery and chemotherapy for stage III colon cancer -- cancer that had spread from the large bowel area to the lymph nodes but not other organs. They were followed on average for five years.

Combined with rectal cancer, colon cancer accounts for about 50,000 deaths annually in the U.S. alone. After questioning them about what they ate, the researchers detected two distinct dietary patterns.

One was a "Western" pattern with lots of red and processed meats, sweets, desserts, French fries and refined grains. The other was a "prudent" pattern avoiding those foods and including lots of fruit and vegetables, poultry and fish.

Those who most closely followed the "Western" pattern experienced a risk about 3.3 times higher for colon cancer recurrence or death than those following the "prudent" one.

"We know that a variety of dietary factors affect people's risk of developing colon cancer, including high red-meat intake and certain sugary foods," Jeffrey Meyerhardt of Dana-Farber Cancer Institute in Boston and Harvard Medical School, who led the study, said in a phone interview.

"But what there really wasn't any data on until now is how these factors may affect people who already have colon cancer. And it's a question a lot of people with colon cancer ask all the time: 'What dietary things should I do, in addition to standard treatment, to help my outcome?' " Dr. Meyerhardt said.

Mary Young, a vice president of the National Cattlemen's Beef Association in Colorado, noted that the study didn't implicate any one food as raising health risks. "However, as a dietitian, I would not recommend the (Western) dietary pattern identified in this study because it does not include the variety

and moderation important to a healthy diet," Ms. Young said in a statement. "Instead, I recommend people choose a diet rich in fruits, vegetables, whole grains, low-fat dairy and lean meats, such as lean beef."

Katherine Tucker, a professor of nutritional epidemiology at Tufts University in Boston who wasn't part of the study, called the research well done.

Exercise and Nutrition

Diet and exercise vs. breast cancer

Letter to the Editor, New England Journal of Medicine, 357:1052-1053 September 6, 2007

Butsch w, Munoz, AJ, Heimbürger, DC.

To the Editor: The Clinical Practice article by Hayes highlights the problems that face breast-cancer survivors. These patients remain at increased risk for not only recurrence of breast cancer but also cardiovascular disease, as well as other cancers. However, we believe the author missed the unique opportunity to provide specific advice to patients regarding the benefits of lifestyle changes in addition to the usual "diet and exercise." Several studies have shown the protective effects of low dietary fat, increased physical activity, and an increased intake of fruits and vegetables on breast-cancer outcomes both before and after diagnosis. In a recent study of breast-cancer survivors by Pierce et al.,¹ consumption of at least five servings of fruits and vegetables per day and regular exercise were associated with a 50% reduction in the 10-year mortality rate, particularly among women with hormone-receptor-positive cancer.

We believe this is a perfect time in the follow-up period to reinforce the importance of a diet abundant in fruits and vegetables as well as regular physical activity, regardless of symptoms or body weight.

Reference: Pierce JP, Stefanick ML, Flatt SW, et al. Greater survival after breast cancer in physically active women with high vegetable-fruit intake regardless of obesity. *J Clin Oncol* 2007;25:2345-2351. [Free Full Text]

Exercise, yoga give breast cancer patients a lift

Sep 5, 2007

By Julie Steenhuysen

CHICAGO, Sept 4 (Reuters) - Exercise and yoga may improve the quality of life of women with early breast cancer, U.S. and Canadian researchers said on Tuesday.

Women with breast cancer who did aerobic and weight training exercises had better self esteem, and the weight lifters were more likely to complete their chemotherapy, the study of 242 women in Canada found. And a group of mostly black and Hispanic women with early breast cancer reported improvements in quality of life after taking a gentle yoga class each week for 12 weeks.

Both studies, published in the *Journal of Clinical Oncology*, suggest lifestyle changes such as exercise and yoga may help women with the emotional and physical challenges of breast cancer.

In the biggest study of its kind, researchers at the University of Alberta studied women undergoing chemotherapy in 2003 through 2005.

They were divided into three groups -- an exercise group, a weight training group and those getting usual care in which patients are routinely told to take it easy.

Women in both exercise groups reported improved self-esteem, physical fitness and body composition. And women in the weight-training group had the best chemotherapy completion rate of the three groups, with 78 percent completing the recommended chemotherapy, compared with 74.4 percent in the aerobic group and 65.9 percent in the usual care group.

"Breast cancer patients going onto chemotherapy can benefit from exercise programs, both weight training and aerobic," Kerry Courneya of the University of Alberta said in a telephone interview.

"And they don't need to worry that it will interfere with chemotherapy. If anything, our study shows it may actually help."

Low white blood cell counts are a frequent side effect of chemotherapy and can often interfere with treatment.

Courneya said other studies have shown that weight training helps boost white blood cell counts. He suspects this may be helping the weight lifters stay on their chemotherapy regime.

Meanwhile, a group of breast cancer patients in New York found that a gentle weekly yoga class helped them to feel calmer and less emotionally depleted than those who did not take the class.

Researchers at the Albert Einstein College of Medicine studied 84 women breast cancer patients who took a weekly yoga class and 44 who did not.

Forty-two percent of the women were black and 31 percent were Hispanic. Women not in chemotherapy got the most benefit.

"I think the yoga class helped them with a sense of community," said study author Alyson Moadel, who noted that breast cancer can often lead to a sense of isolation.

"It helps them relax and slow down and stops the racing thoughts," she said.