Exercise Reduces Mortality in Cancer Survivors

Physical activity significantly extends the lives of male cancer survivors, a new study has shown.

"People can start exercising after a diagnosis and have a better health outcome," study author Kathleen Y. Wolin, PhD, associate professor of public health sciences and surgery at Loyola University in Chicago, told *Medscape Medical News*.

The study was published in the January issue of the *Journal of Physical Activity & Health*.

The findings are reinforced by a randomized controlled trial, published online January 27 in the *Journal of Clinical Oncology*, which has shown that survivors of breast cancer can reduce their inflammation and fatigue by participating in yoga.

The benefits of exercise in preventing illness in already healthy people have been firmly established. But researchers are just beginning to understand how exercise affects people diagnosed with serious illnesses such as cancer, Dr. Wolin explained.

Her team combed through data from the Harvard Alumni Health Study, which is tracking men who entered Harvard as undergraduates from 1916 to 1950.

They found 1021 men with a cancer diagnosis who had completed a questionnaire on their physical activities in 1988.

These men estimated the amount of physical activity — such as walking, stair climbing, sports, and recreation — they participated in during the previous week. The researchers updated the physical activity information with a similar questionnaire in 1998.

The team then used the National Death Index, a list of death records maintained by the US National Center for Health Statistics, to determine which of the men had died by the end of 2008.

The mean age of these men was 71.3 years, and the mean age at cancer diagnosis was 66.0 years. The largest proportion, 30%, had prostate cancer.

During the average follow-up of 11.8 years, 777 men died. The cause of death was cancer in 337 of these men, cardiovascular disease in 190, and unknown in 22. The remainder died from a variety of causes.

The more physically active the men were, the less likely they were to die, the researchers report. Men who burned more than 12,600 kJ a week in physical activity had half the risk for death as men who expended less than 2100 kJ.

Even when the researchers adjusted for age, smoking, body mass index, early parental mortality, and diet, the most active men had 48% the mortality of the most sedentary men.

The recommendation is to resume normal activity as soon as possible. Dr. Kathleen Wolin

The lesson from this and other research is to be as active as possible, even with a serious illness. "The recommendation is to resume normal activity as soon as possible during and after," said Dr. Wolin. "Start low, go slow, and pay attention to how you feel."

Of course, many people who have been sick don't feel like exercising at all. The yoga study offers hope for these patients as well, lead author Janice Kiecolt-Glaser, PhD, professor of psychiatry at Ohio State University in Columbus, told *Medscape Medical News*.

Studies have shown that about one third of women with breast cancer feel fatigued for years after treatment, said Dr. Kiecolt-Glaser.

"One of the problems with fatigue is that you don't feel like doing much," she said. "The less you do, the less fit you become. You can get into a really nasty downward spiral. Yoga may be a more benign way to get people moving" than having them run a few miles.

Yoga in Breast Cancer Patients

Dr. Kiecolt-Glaser and her colleagues randomly assigned 200 breast cancer survivors to either 90-minute Hatha yoga classes twice weekly for 12 weeks or to a waiting list for the classes (control group).

At the end of the 12-week study, the yoga group had significantly less fatigue than the control group, measured on the Multidimensional Fatigue Symptom Inventory–Short Form (MFSI-SF) ($P = .002$).

The yoga group also had significantly more vitality than the control group, measured on the Medical Outcomes Study 36-Item Short-Form Health Survey ($P = .01$).

Levels of 3 biomarkers for inflammation, tumor necrosis factor (TNF)-alpha, and interleukin (IL)-6 and IL-1beta were also significantly lower in the yoga group ($P < .04$).

Depression scores on the Center for Epidemiologic Studies–Depression (CES-D) scale did not differ between the 2 groups.

The inflammation and fatigue findings are important, said Dr. Kiecolt-Glaser, because inflammation might play a role in the harm caused by cancer.

Only a couple of women in the study sustained minor injuries related to the yoga, so clinicians can safely recommend it to patients who have been diagnosed with cancer, she said.

"There are some things about yoga that may have been particularly helpful," she said. "Part of yoga involves breathing and meditative aspects, which is not true of traditional exercise. Part of the theory behind them is that they might offer some stress buffering."