

Wellness corner: Is Sitting Too Long a Major Cancer Risk?

Here's a new risk for cancer a lot of us can relate to -- simply sitting too long. Regular exercise has long been linked with reducing the risk of certain cancers. Now, experts say they have a better strategy. Get regular exercise and avoid prolonged periods of sitting. Higher activity could prevent nearly 100,000 cases of breast and colon cancer in the U.S. each year, says Christine Friedenreich, PhD, research scientist and epidemiologist at Alberta Health Services in Canada. "These are just estimates," she tells WebMD. Being sedentary has been linked with an increase in inflammation and other indicators of cancer risk. More recently, so has prolonged sitting. "We'd like Americans to think about physical activity in a different way," Alice Bender, RD, a dietitian for the American Institute for Cancer Research, said at the news conference. The focus, Bender says, should be on finding time for regular exercise while also reducing prolonged sitting. "We would like people to think about 'make time' and 'break time' and that equals cancer protection." The American Institute for Cancer Research now recommends that adult Americans who sit most of the day take one- or two-minute "activity" breaks every hour.

Sitting Time and Cancer Risk

"Sitting time is emerging as a strong candidate for being a cancer risk factor in its own right," Owen says. The link is not dependent, he says, on body weight or the level of exercise done. In his research, Owen measured waist circumference, inflammation, and other indicators of heart disease and cancer risk. "We found that even breaks as short as one minute can lower these biomarkers." The study is published in the *European Heart Journal*. Along with less sitting, Friedenreich updated the evidence linking physical activity with reduced cancer risk by reviewing more than 200 studies. "We can now say there is convincing evidence that activity reduces the risk of colon and breast cancer and probably endometrial," she tells WebMD. There is weaker evidence for the effect of exercise on lung, prostate, and ovarian cancer risk, she says. For colon cancer, studies showed that people who exercised the most (and the amount varied from study to study) had a 30% or 35% risk reduction compared to people who were least active, she says. In studies on exercise and breast cancer, the most active people reduced their risk 20% or 30%, compared to the least active. For endometrial cancer, the risk reduction was also 30% to 35% for the most active. Because each study had different categories of most or least activity, "we can't say, 'this is how many hours [of activity are needed],'" she says. She is addressing that in a current study. To calculate the effect of activity on

cancer risk, Friedenreich turned to the SEER Program (Surveillance, Epidemiology and End Results) database of the National Cancer Institute. A total of 141,210 colon cancers and 230,480 breast cancers were reported for 2011. She estimated that about 30% of the colon cancers, or nearly 43,000, could be prevented with activity. About 21% of breast cancers, or about 49,000, might be avoided.

In her research, Friedenreich recently found that women who began to exercise had much lower levels of C-reactive protein, an indicator of inflammation and possibly cancer risk, than those who did not. She randomly assigned half of 320 women, ages 50 to 74, to the exercise group. They worked up to exercise five days a week for at least 45 minutes. The program lasted a year. The study is published in *Cancer Prevention Research*. The bottom line for reducing health risks, including cancer? "Exercise is good, but you can't sit all the time," says Leslie Bernstein, PhD, professor and director of the division of cancer etiology at the City of Hope Comprehensive Cancer Center, Duarte, Calif. She reviewed the findings for WebMD. Bernstein and colleagues published a study in 2010 about the dramatic effects of "sitting time" on the likelihood of dying. The study was led by Bernstein's former doctoral student, Alpa Patel, PhD, now an epidemiologist with the American Cancer Society. They found the likelihood of dying during the 14-year follow-up was higher in those who spent six or more hours a day sitting, compared to those who spent less than three hours. The risk was 37% higher for women sitting six or more hours and 18% for men. The link was strongest for death from heart disease. The sitting time was linked with death risk, regardless of the amount of physical activity, Bernstein tells WebMD. The study is published in the *American Journal of Epidemiology*. "All our messages before [to reduce disease risk] were 'exercise, exercise, exercise,'" Bernstein says. Now, growing evidence suggests it is also important to avoid prolonged periods of sitting, she says.

Tips for Office Workers

Bender says it's possible even for a commuting, desk-bound office worker to avoid long periods of sitting.

Her tips:

- Set the timer on your computer to alert you every 60 minutes to take a break. A short walk down the hall is enough.
- Ask a colleague to walk with you to talk about a problem instead of sitting.
- During a phone call in your office, stand up and walk around if possible.