



## RESEARCH NEWS

# Healthy lifestyle leads to better survival in colorectal cancer, study finds

Janice Hopkins Tanne

New York

Patients who followed a healthy lifestyle were more likely to survive stage III colorectal cancer in a large prospective cohort study from nearly two dozen university medical centers in the US and Canada.<sup>1</sup>

“To our knowledge, no prior study has evaluated the ACS [American Cancer Society] guidelines in relation to survival,” the researchers wrote. “Patients with colon cancer who had a healthy body weight, were physically active, and ate a diet rich in vegetables and fruits and chose whole over refined grains had a 42% lower risk of death during the [five year] study period than patients who did not engage in these behaviors.”

Furthermore, patients who changed to a healthier lifestyle after diagnosis had a 33% lower risk of death during the follow-up period than those who did not change their lifestyle, said Erin L Van Blarigan, corresponding author, from the University of California, San Francisco, in an email to *The BMJ*.

The researchers suggested that following the lifestyle guidelines after colon cancer diagnosis inhibits recurrence and death. Such a lifestyle “improves insulin sensitivity, decreases inflammation, and increases vitamin D levels. These biomarkers have all been consistently associated with colorectal cancer survival,” they said.

Colorectal cancer affects over 1.3 million people in the US. The lifetime risk is about one in 22 among men and one in 24 among women. This year 97 000 cases of colon cancer and 43 000 cases of rectal cancer will occur, the American Cancer Society predicts.

The society’s guidelines include maintaining a healthy body weight, about 150 minutes a week of moderate physical activity, and a diet that includes vegetables, fruits, and whole grains.

This study aimed to find out whether a lifestyle consistent with the guidelines was associated with a reduced risk of recurrence or death after diagnosis. No previous study had looked at the combined effect of body mass index (BMI), physical activity, diet, and alcohol use after diagnosis of colorectal cancer.

The study included 992 patients who entered the study from 1999 to 2001. They completed a lifestyle survey midway through

chemotherapy and a second survey six months after chemotherapy. The researchers created a score of 0 to 6 based on each participant’s BMI, physical activity, intake of vegetables and fruits, proportion of total grains consumed that were whole grains, and intake of red and processed meat. Higher scores indicated lifestyle behaviors more consistent with the cancer society’s guidelines.

A secondary analysis based on alcohol consumption, using the society’s guidelines for low to moderate alcohol consumption, found that when alcohol use was included the results were strengthened and statistically significant.

“Patients whose lifestyle was consistent with the ACS guideline were more likely to be white, women, and never smokers; there was no difference in age, aspirin used, performance status,” the researchers said.

If the researchers’ findings are due to following the guidelines, “12 patients with stage III colon cancer would need to adopt a lifestyle consistent with the ACS guidelines for five years to prevent 1 death,” they wrote.

An accompanying editorial said that the results of the study were “certainly striking.”<sup>2</sup> But it noted that the study included few African-American and Hispanic participants and that the chemotherapy regimens for colorectal cancer had changed since the study was conducted.

The editorial also noted the challenge of changing patient behavior related to lifestyle choices. It warned, “We know from observational data in the United States and the United Kingdom that having a cancer diagnosis does not necessarily lead to behavior change and adherence to healthy lifestyle guidelines.”

- 1 Van Blarigan EL, Fuchs CS, Niedzwiecki D, et al. Association of survival with adherence to the American Cancer Society Nutrition and Physical Activity Guidelines for cancer survivors after diagnosis. *JAMA Oncol* 2018. 10.1001/jamaoncol.2018.0126.
- 2 Fisch MJ, McNeill LH, Basen-Engquist KM. Helping colorectal cancer survivors benefit from changing lifestyle behaviors: implementation science and private industry collaboration to the rescue. *JAMA Oncol* 2018. 10.1001/jamaoncol.2018.0124.

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