

# New evidence on how weight, diet and exercise can help reduce cancer risk

By Suzanne Allard Levingston, Published: February 18

Cutting your risk of cancer is no longer just about shunning tobacco. Be lean. Eat healthfully. Get active. Common-sense lifestyle strategies for lowering the risk of heart disease and diabetes are now being shown to help prevent many types of cancer.

Of course, there are few absolutes in cancer prevention. Cancer is still a riddle, with many factors, including genetics, playing a role. But growing evidence suggests that there are steps that we can take to lower our chances of getting the disease, experts say.

Otis Brawley, chief medical officer for the American Cancer Society, urges careful attention to the “three-legged stool” of excess weight, poor diet and inadequate physical activity, [which together are linked to between a quarter to a third of cancer cases](#). If tobacco use continues its decline of the past 15 years or so, he said, that trio may supplant smoking as the leading preventable cause of cancer.

Indeed, [a recent study](#) found that women who followed the ACS Guidelines on Nutrition and Physical Activity for Cancer Prevention lowered their risk significantly. Those guidelines include maintaining a healthy weight, adopting a physically active lifestyle, consuming a healthful diet that emphasizes plant-based food, and limiting alcohol intake. Data on more than 65,000 post-menopausal women tracked for more than 12 years found that compared with those who were least compliant with the ACS guidelines, the women who followed them most closely had a 17 percent lower risk of any cancer, a

22 percent lower risk of breast cancer and a 52 percent lower risk of colorectal cancer, according to a study released in January.

“This suggests that even later in life, if you are making healthy choices it seems to be protective in terms of cancer risk,” said lead author Cynthia Thomson, a professor in the college of public health at the University of Arizona. The women who best adhered to the guidelines were also 27 percent less likely to have died during the time frame of the study.

This study builds on 2011 research that found a lower risk of death from cancer, cardiovascular disease and all causes for nonsmokers who followed the ACS guidelines, which include:

### **1. Maintain a healthy weight throughout life.**

Being as lean as possible and maintaining a healthy weight are key components of cancer prevention. People should aim for body mass index (BMI) score of 18.5 to 24.9, according to the ACS. “The data are becoming more and more consistent that gaining excess weight as we age, and even children being very heavy, can increase risks for cancers later in life,” said [Rachel Ballard-Barbash](#) of the National Cancer Institute.

According to the ACS, extra body weight is associated with greater risk of cancers of the breast, colon and rectum, endometrium, esophagus, kidney and pancreas. Added weight also probably raises the risk of such cancers as gallbladder, liver, non-Hodgkin lymphoma, multiple myeloma, cervix, ovary and prostate.

[A study published in 2003 in the New England Journal of Medicine](#) found increased body weight associated with increased death rates for all cancers. The same association applied to deaths from many specific cancers including esophagus, colon and rectum, liver, gallbladder, pancreas and kidney, as well as non-Hodgkin lymphoma and multiple myeloma. Poor BMI scores were associated with cancer deaths of the stomach and prostate for men and of the breast, uterus, cervix and ovaries in women. Large body

size in childhood, adolescence and young adulthood predicted increased risk of non-Hodgkin lymphoma in a 2013 [study in Cancer Prevention Research](#).

## **2. Get active.**

Your level of physical activity may affect your risk of several kinds of cancers: breast, colon, endometrium and prostate, according to the ACS.

A sedentary lifestyle, coupled with overeating, can create an energy imbalance that causes abnormalities in the body. If you are in the habit of taking in too many calories compared with what you burn, this imbalance can spur metabolic and hormonal changes and inflammation that may fuel many diseases, including cancer, heart disease and diabetes, Ballard-Barbash said. She said people who develop cancers such as colon, breast, lung and prostate often have other diseases as well, because some of the same mechanisms affect all these diseases. That is why controlling activity, weight and diet is so crucial to disease prevention and overall health.

Research in this area is growing. For example, post-menopausal women who walked seven hours a week had a 14 percent lower risk of developing breast cancer compared with those who walked fewer than three hours a week, according to an October 2013 [study](#).

The ACS recommends at least 150 minutes of moderate-intensity aerobic activity such as brisk walking or 75 minutes of jogging weekly. A similar [recommendation](#) comes from the American Institute for Cancer Research, which calls for being physically active at least 30 minutes a day, with maximum health benefits coming from 60 minutes or more of moderate activity or 30 minutes or more of vigorous activity daily.

## **3. Eat healthfully.**

Over the past 50 years there have been many studies on the health effects of individual nutrients and foods. One week researchers report on the [benefits of coffee](#); the next, it's the [benefits of nuts](#) or the [negatives of sugary beverages](#).

For preventing disease, the current trend is to think about the entire diet or dietary patterns, rather than the particulars of dozens of foods or nutrients, Ballard-Barbash said.

“We don’t know of a diet that definitely will prevent cancer,” said Moshe Shike, a cancer prevention expert at Memorial Sloan Kettering Cancer Center in New York. But, he added, “we have very strong evidence that a healthy diet can reduce the risk of certain cancers and [that] unhealthy diet and obesity are associated with increased risk.”

The ACS recommends a diet rich in plants and whole-grain foods, especially one that controls calories consumed. The timing of your meals may jump-start your metabolism and help you balance your energy and burn calories efficiently, said Ballard-Barbash. She noted that studies seem to suggest that by simply eating your evening meal earlier and redistributing calories throughout the day, as opposed to eating later in the evening, may help reduce how many calories you eat and how well your body burns those calories, Ballard-Barbash said.

Shike and others recommend a diet rich in fruits and vegetables, with little red meat and more fish, whole grains and nuts. Thomson suggests that half your dinner plate consist of plant-based foods.

Cancer prevention experts also advise avoiding tobacco, limiting alcohol, knowing your family history, being careful about sun exposure and getting age-appropriate screening. They also suggest getting vaccinated against two major cancer-causing viruses: hepatitis B virus (HBV), linked to liver cancer, and human papillomavirus (HPV), which is linked to cervical and throat cancers.

In acknowledging that cancer is not completely preventable, many experts use driving metaphors to explain managing the risk. “We will wear seat belts. Most of the time we don’t need them,” said Edward Giovannucci, a professor of nutrition and epidemiology at the Harvard School of Public Health. “But most people think it’s worth putting on seat belts. It makes sense to follow these guidelines.”

“We don’t play a blaming game,” Shike said. “It’s not about that. It’s about starting from today moving forward. You can’t change the past. But you can do things to improve your chances and decrease your risk.”

*Levingston is a writer based in Bethesda.*