

Nutrition and Physical Activity Guideline for Cancer Survivors

There are nearly 17 million cancer survivors living in the United States. Research suggests that lifestyle factors, such as a person's body weight, how physically active they are, what they eat, and whether they drink alcohol, may affect their survival and wellness following a cancer diagnosis. The American Cancer Society (ACS) recently reviewed the research on how these factors may influence cancer outcomes and published a detailed update of its *Nutrition and Physical Activity Guideline for Cancer Survivors*. Here is a summary of the guideline's evidence-based advice about these lifestyle factors for cancer survivors and their families as well as some related tips from experts at the ACS.

Benefits of Healthy Behaviors

Your outlook for survival and for a return to good health after being diagnosed with cancer depends on many factors. The type of cancer you have, how advanced it is, what treatments you get, and whether you have any other health problems can all affect your outlook.

There is also growing evidence that diet, physical activity, and related factors can help some cancer survivors live longer, lower their risk of the cancer returning (or of a new cancer developing), and limit some side effects of treatment. It can also lower their risk of developing some other serious diseases and improve their overall health and wellness.

There is no guarantee that following the advice in this guideline will achieve all of these benefits for every cancer survivor. If you have questions about how lifestyle factors might affect you as an individual, speak with your cancer doctor or other members of your cancer care team.

Diet and Nutrition During and After Treatment

Eating nutritious foods can help cancer survivors manage their energy levels, feel better, and stay stronger. The nutritional needs of cancer patients during treatment depend on the type of cancer they have, which treatments they get, and what side effects they have.

Here are some general tips for eating well during treatment:

- Don't be afraid to try new foods. Some things you've never liked before might taste good during treatment.
- Choose a variety of plant-based foods. Try eating beans and peas instead of meat at a few meals each week.
- Try to eat more fruits and vegetables every day. Colorful vegetables and fruits and plant-based foods have many natural health-promoting substances.
- Try to stay at a healthy weight and stay physically active. Small weight changes during treatment are normal.
- Limit the amount of salt-cured, smoked, and pickled foods you eat.
- Limit or avoid red or processed meats.

Patients getting cancer treatment may face eating challenges, such as poor appetite; having problems chewing, swallowing, or digesting; and feeling very tired from the treatment or cancer, all of which can affect their nutritional status.

The ACS recommends that nutrition screening, assessment, and counseling begin as soon as possible after cancer is diagnosed:

The goal is to prevent or resolve nutrient deficiencies, preserve muscle mass, and manage side effects of treatment that may cause problems with eating.

If your health care team determines that you're at risk for malnutrition or have other diet-related issues that could affect your nutritional status, they should refer you to a Registered Dietitian Nutritionist (RDN) or Registered Dietitian (RD) for personalized nutritional counseling.

Both during and after cancer treatment, survivors who aren't having problems with malnutrition or nutrition-related side effects should follow the healthy dietary pattern outlined in the *ACS Guideline for Diet and Physical Activity for Cancer Prevention* below. Many dietary patterns can fit within these general guidelines, including the Mediterranean diet, a vegetarian or mostly plant-based diet, the *DASH eating plan*

(Dietary Approaches to Stop Hypertension), and the *US Dietary Guidelines for Americans*.

- A healthy eating pattern *includes*:
 - Foods that are high in nutrients in amounts that help you get to and stay at a healthy body weight;
 - A variety of vegetables—dark green, red, and orange vegetables, fiber-rich legumes (beans and peas), and others;
 - Fruits, especially whole fruits in a variety of colors; and
 - Whole grains.
- A healthy eating pattern *limits or does not include*:
 - Red and processed meats,
 - Sugar-sweetened beverages, or
 - Highly processed foods and refined grain products.

Physical Activity During and After Treatment

Being physically active after a cancer diagnosis can help improve survival for breast, colorectal, and prostate cancer survivors, and evidence is growing that it can be helpful for some other cancer types as well. Physical activity can also help reduce anxiety, depression, fatigue, and lymphedema, as well as improving health-related quality of life, bone health, and sleep.

Because of the many benefits of physical activity, *the ACS recommends that physical activity assessment and counseling begin as soon as possible after cancer is diagnosed*. Being physically active is safe for most people getting cancer treatment. However, it's still important for people to check with their care team before starting any exercise program for advice on choosing a program that is safe and effective for them.

Once your care providers tell you it's safe to exercise, work toward achieving the current physical activity recommendations for general health:

- From 150 to 300 minutes per week of moderate-intensity activity (during which you can talk but not sing—examples include brisk walking, yoga, leisurely bicycling, etc); *OR*
- From 75 to 150 minutes per week of vigorous-intensity activity (during which you have trouble talking or are out of breath—examples include running, swimming, singles tennis, etc); *OR*
- A combination of the 2 intensities; *AND*
- Muscle-strengthening activities 2 or more days per week (examples include hand weights, exercise bands, and body weight activities such as push-ups or squats).

Cancer patients and survivors should take precautions when starting an exercise program, including:

- Start slowly. Even if you can only be active for a few minutes a day, it will help you. Slowly increase how often and how long you exercise. Your muscles will tell you when you need to slow down and rest or when you can do more.
- Exercise as you are able. Don't push yourself while you are in treatment. Listen to your body and rest when you need to. If you feel very tired you can start by doing 10 minutes of light exercises each day and build up.
- Stay away from uneven surfaces that could make you fall. Don't exercise if you feel dizzy or are unsteady on your feet.
- If you plan to exercise outside, find someplace safe and well-lit. Don't forget to dress appropriately for the weather and to wear sunscreen (broad spectrum, SPF 30 or higher).
- If you are more at risk for infection, you may need to stay away from public gyms and crowds until your risk returns to normal.
- If you want to swim while getting radiation therapy, check with your radiation therapy team. If you don't have any skin irritation or sores, you should be able to swim. Be sure to rinse off after getting out of a pool to lower the chance of skin irritation.
- Take someone with you when you exercise or make sure someone knows where you are in case you have trouble. It can also help to bring your phone.

Survivors who want to exercise to help with specific cancer-related effects, such as fatigue, anxiety, or depression, should visit the *Moving Through Cancer* website from the American College of Sports Medicine for specific physical activity recommendations for those symptoms.

Body Weight

People with overweight or obesity have a higher risk of developing several types of cancer. However, the role of body weight in cancer outcomes, such as recurrence and survival, is less well understood. For example, research suggests that women with obesity have a higher risk of recurrence and death from breast cancer, but whether obesity is related to these outcomes for other cancers is less clear.

During cancer treatment, try to focus on maintaining (or even increasing) your muscle mass through diet and physical activity. Side effects of cancer treatment that cause changes in taste and smell, reduce appetite, or cause digestive disturbances can lead to weight loss, loss of muscle mass, and poor nutritional status. Patients getting cancer treatments that affect the digestive tract are most at risk for weight loss. Getting enough calories to prevent malnutrition and

maintain healthy body weight and strength can improve your cancer recovery journey.

If you are losing weight or having trouble getting enough calories or protein due to the side effects of treatment, here are some tips that might help:

- Eat several small snacks throughout the day, rather than 3 large meals.
- Eat your favorite foods at any time of the day. For instance, eat breakfast foods for dinner if they appeal to you.
- Eat every few hours. Don't wait until you feel hungry.
- Eat your biggest meal when you feel hungriest. For example, if you are most hungry in the morning, make breakfast your biggest meal.
- Try to eat high-calorie, high-protein foods at each meal and snack.
- Exercise lightly or take a walk before meals to increase your appetite.
- Drink high-calorie, high-protein beverages like milk shakes and canned liquid supplements.
- Drink most of your fluids between meals instead of with meals. Drinking fluid with meals can make you feel too full.
- Try homemade or commercially prepared nutrition bars and puddings.

After treatment, survivors with overweight or obesity may consider trying to lose weight to improve their overall health, reduce the chances of getting another cancer, and

possibly reduce their risk of recurrence and improve survival for some cancer types. If you are interested in losing weight, talk to your health care provider about your options.

Alcohol

Among cancer survivors, the impact of drinking alcohol on cancer recurrence and survival isn't clear for most cancer types. Studies of people with head and neck cancer and liver cancer show that those who drink alcohol do not live as long as those who do not. The link with other cancer types is less clear.

During cancer treatment, it may be best for patients to avoid or limit alcohol, especially if they are starting treatment that will put them at risk for mouth sores, such as head and neck radiation or many types of chemotherapy. If alcohol is consumed during treatment, it should be limited to prevent interactions with chemotherapy and avoid aggravating treatment areas during radiation therapy. Talk to your health care provider about whether it's safe to drink alcohol during your treatment.

Although there isn't enough evidence to make specific recommendations about alcohol for cancer survivors in general, alcohol intake is a known cause of several types of cancer. Therefore, avoiding alcohol is recommended for cancer prevention, including for cancer survivors.

- If you do choose to drink, women should have no more than one drink per day, and men should have no more than two drinks per day.
- A drink is 12 ounces of regular beer, 5 ounces of wine, or 1.5 ounces of 80-proof distilled spirits.

American Cancer Society Recommendations for Cancer Survivors

General recommendations for cancer survivors:

- Begin *nutritional assessment and counseling* as soon as possible after being diagnosed, with the goals of preventing or resolving nutrient deficiencies, preserving muscle mass, and managing side effects of treatments that may adversely affect nutritional status.
- Begin *physical activity assessment and counseling* as soon as possible after being diagnosed, with the goals of helping you prepare for treatments, tolerate and respond to treatments, and manage some cancer-related symptoms and treatment-related side effects.

Recommendations to improve long-term health and increase the likelihood of survival:

- Avoid obesity and maintain or increase muscle mass through a combination of diet and physical activity.
- Get regular physical activity. Your activity plan should take into account your type of cancer, what type of treatments you've had, your symptoms and side effects from treatment, and any other health problems you have.
- Follow a healthy eating pattern that provides you with enough nutrients and is consistent with recommendations to help lower your risk of other chronic diseases (such as heart disease, stroke, and diabetes).
- Follow the general advice of the American Cancer Society *Guideline for Diet and Physical Activity for Cancer Prevention* to reduce your risk of getting a new cancer.

This information is based on the 2022 ACS *Nutrition and Physical Activity Guideline for Cancer Survivors*. Additional resources may be found online in the Supporting Information section at the end of the guideline article.

See also Article, pages 000–000.