



Heal After Cancer

Healthy Eating and Active Living for Cancer Survivors





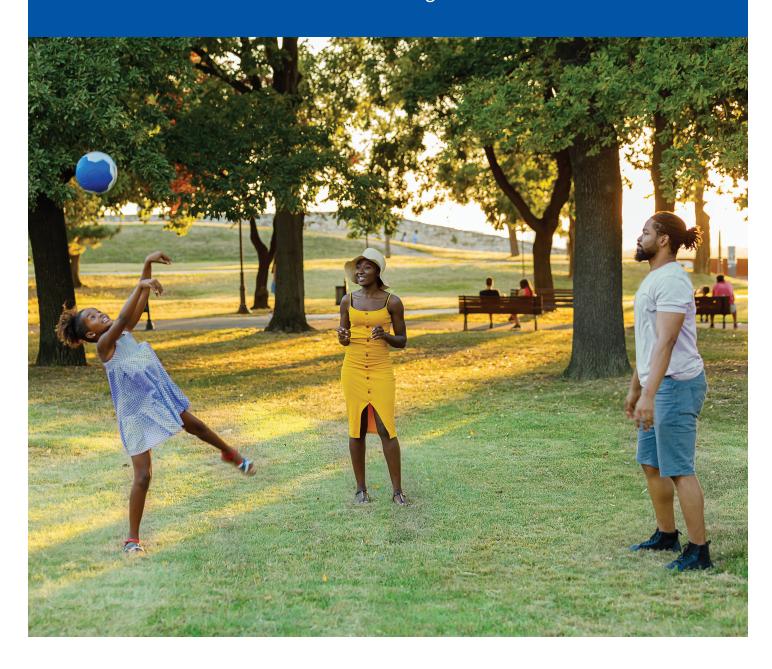




The American Cancer Society and Kohl's have partnered to create the *Kohl's Healthy Families* program which supports families through the prevention, screening, diagnosis, and treatment of cancer. This guide is intended to provide suggestions about making small lifestyle changes that may support your cancer survivorship.

Did You Know?

The American Cancer Society uses the term cancer survivor to refer to anyone who has ever been diagnosed with cancer no matter where they are in the course of their disease. There are more than 18 million cancer survivors in the United States and the number continues to grow.



Heal After Cancer



There is growing evidence that eating healthy foods and being active 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.

The American Cancer Society has recommendations to improve your long-term health and increase likelihood of survival:

- Get regular physical activity. Your activity plan should consider 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).
- Avoid obesity and maintain or increase muscle mass through a combination of diet and physical activity.
- 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.

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1.



Get Active

Research shows that for most people exercise is safe and helpful before, during, and after cancer treatment. It can help improve your quality of life as well as the energy you have to do the things you enjoy. Physical activity may also help you cope with side effects of treatment and possibly decrease your risk of new cancers in the future.

ACS recommends that a physical activity assessment and counseling begin as soon as possible after cancer is diagnosed: The goal is to help you prepare for treatments, tolerate and respond to treatments, and manage some cancer-related symptoms and treatment-related side effects.

Too much time spent resting or sitting can cause loss of body function, muscle weakness, and reduced range of motion. Many cancer care teams are urging their patients to be as physically active as possible before, during and after cancer treatment.

Benefits of regular physical activity may help you before, during, and after cancer treatment

- Help your body and brain work better
- Help you feel less tired (fatigue)
- Help lessen depression and anxiety
- Might help you sleep better
- Keep or improve your physical ability to get things done
- Improve your muscle strength, bone health and range of motion
- Strengthen your immune system
- Increase your appetite
- Help you get to and maintain a healthy weight
- May help with breast cancer related lymphedema (and does not increase risk)
- Decrease the chance that some types of cancer will come back
- Improve your quality of life
- Reduce treatment side effects



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. Be sure that the person working with you knows about your cancer diagnosis and your limitations. Specially trained professionals can help you find the type and duration of exercise that's right for you. Keep your cancer team informed on how you're doing in regard to your activity level and exercise throughout and after your treatment.

If you are experiencing side effects from treatment, there are specially trained professionals that might be able to help you before you start an exercise program:

- Physical therapists (PT) specialize in helping people improve or restore mobility. There are Oncology PTs who work specifically with people getting treated or who have completed treatment for cancer.
- Occupational therapists work with people who have physical limitations to help them develop, recover, and improve the skills needed for daily living and working. They also work to prevent disability and maintain health.
- Lymphedema therapists often use techniques such as compression garments, specialized massages, bandaging methods, and exercises that focus on preventing and reducing swelling and aimed at controlling pain.



The American Cancer Society Physical Activity Guidelines for Cancer Survivors:

- Avoid inactivity and return to normal daily activities as soon as possible after diagnosis and treatment.
- Take part in regular physical activity.
- Start slowly and build up the amount of physical activity over time.
- Build up to 150-300 minutes of moderate (or 75-150 minutes of vigorous intensity) activity each week.
- Exercise several times a week for at least 10 minutes at a time.
- Include muscle-strengthening activities at least 2 days per week.

Safety precautions when starting an exercise program

- 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.

Goals of an exercise program

Certain things can affect your ability to exercise during treatment, such as:

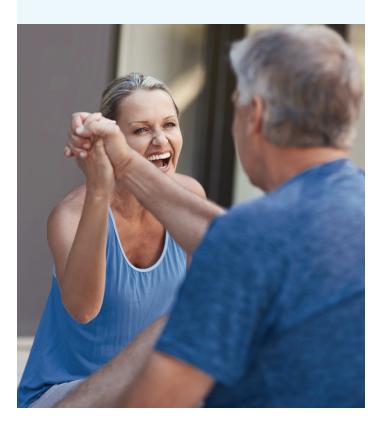
- The type and stage of cancer you have
- Your cancer treatment
- Your stamina, strength, and fitness level before and during treatment

If you exercised before treatment, you might need to exercise less or at a lower intensity during treatment. The goal is to stay as active as you can. People who were very sedentary (inactive) before cancer treatment may need to start with short, low-intensity activity, such as short slow walks.

Before treatment

Research shows that being as active as possible may reduce complications from surgery and may help you handle treatment better. Also, physical activity may help you deal with distress or anxiety, have more energy, and sleep better as you begin treatment.

Many people find that as they start treatment, the ability to be active may be harder. So, starting out in better physical shape means you can tolerate more activity during and after treatment.



Recovering from treatment

Most people are able to slowly increase exercise time and intensity as their side effects lessen. What may be a low- or moderate-intensity activity for a healthy person may seem like a high-intensity activity for some cancer survivors. Take your time and be patient with yourself as you gradually increase your activity. Remember – the most important thing is to move as much as you can.

Living disease-free or with stable disease

During this time, physical activity is important to your overall health and quality of life. Research shows that getting to and staying at a healthy weight, eating right, and being physically active may help reduce the risk of other serious chronic diseases, as well as the risk of a second cancer.

A healthy lifestyle might also decrease the risk of some cancers coming back. A growing number of studies have looked at the impact of physical activity on cancer recurrence and long-term survival. Exercise has been shown to improve cardiovascular fitness, muscle strength, body composition, fatigue, anxiety, depression, self-esteem, happiness, and quality of life in cancer survivors. Studies of people with breast, colorectal, and prostate cancers suggest that physically active cancer survivors have a lower risk of cancer recurrence and improved survival compared with those who are inactive.

Living with advanced cancer

Physical activity may also help people whose cancer has spread or has become advanced and cannot be cured. Exercise may improve physical function, decrease fatigue, and improve quality of life. Whether you can tolerate more physical activity will depend on your type and stage of cancer, side effects you might have, your current physical ability, and any other health problems. Before starting new activities and being more active, check with your cancer care team about whether it is safe for you to do so.



Try more than one kind of exercise

- Try to include physical activity that uses large muscle groups such as your thighs, abdomen (belly), chest, and back. Strength and aerobic fitness are important parts of a good exercise program.
- Try to include some exercises that will help you keep lean muscle mass and bone strength, like exercising with a resistance band or light weights.
- You might want to include exercises that will increase your flexibility and keep the range of motion in your joints.
- Always start with warm-up exercises for 2 to 3 minutes. Examples of warm-up exercises are shoulder shrugs, lifting arms overhead, toe tapping, marching, and knee lifts.
- End your exercise session with stretching or flexibility exercises. Hold a stretch for about 15 to 30 seconds and relax. Examples of stretching are reaching overhead, deep breathing, and bending over to touch your toes so that you relax all the muscle groups.

Tips to help you stick to your exercise program

- Set short-term and long-term goals.
- Focus on having fun.
- Do something different to keep it fresh. Try yoga, dancing, or riding a bike.
- Ask for support from others, or get friends, family, and co-workers to exercise with you.
- Use charts or a fitness tracker to record your exercise progress.
- Recognize and reward your achievements.

Starting an exercise program can be a big task, even for a healthy person. It may be even harder if you have a chronic illness, especially if you weren't used to exercising before your diagnosis. Start slowly and build up as you are able. If you were exercising regularly before you were diagnosed with cancer, you may need to reduce the intensity and length of your exercise sessions for a while. But you can build back up when you feel up to it.

Add physical activity to your daily routine

Here are some ways to add physical activity to the things you do every day. Remember, only do what you feel up to doing.

- Take a walk after dinner
- Ride your bike
- Mow the grass or rake the leaves instead of using a blower
- Scrub your bathroom
- Wash and wax your car
- Play active games with kids, like freeze tag, jump rope, and other games you played when you were a kid
- Walk a dog (one that can be controlled so that you don't trip or get pulled off balance)
- Weed your garden
- Bust a move (dance) in your living room
- Use an exercise bike or treadmill, or do arm curls, squats, lunges, and crunches while watching TV
- Walk to lunch
- Park your car in the farthest parking space at work and walk to the building
- Use the stairs instead of the elevator or escalator
- Get off the bus several stops early and walk the rest of the way
- Make appointments for yourself in your daily planner for 10-minute walking breaks
- Form a walking club of co-workers to help you stay motivated to walk during the workday
- Use a fitness tracker to try to increase your daily steps

Remember, the goal is to be as active as possible. Keep it safe, keep it fun, and make it work for you.

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).



	Moderate-Intensity Activities	Vigorous-Intensity Activities
Exercise and Leisure	Walking, dancing, leisurely bicycling, ice skating, roller skating, horseback riding, canoeing, yoga	Jogging or running, fast bicycling, circuit weight training, aerobic dance, martial arts, jumping rope, swimming
Sports	Volleyball, golfing, softball, badminton, doubles tennis, downhill skiing	Soccer, field or ice hockey, lacrosse, singles tennis, racquetball, basketball, cross-country skiing
Home Activities	Mowing the lawn (push mower), general lawn and garden maintenance	Digging, carrying, hauling, masonry, carpentry
Occupational Activities	Walking and lifting as part of the job (custodial work, farming, auto or machine repair)	Heavy manual labor (forestry, construction work, firefighting)

2.



Eat Healthy

Eating healthy 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 may experience. After treatment, eating healthy can help you more quickly recover from the side effects of treatment.

ACS recommends that people with cancer have a nutritional evaluation soon after they are diagnosed. People should also be taught about what to eat to make sure they get enough nutrients, keep up their muscle mass, and manage 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 any diet-related issues that could affect your nutritional status, they should refer you to a **Registered Dietitian** or **Oncology Dietitian** to help with your individual needs.



Preparing for Treatment

Until you start treatment, you won't know what, if any, side effects you may have or how you will feel. One way to prepare is to look at your treatment as a time to focus on yourself and on getting well.

Make plans now

You can lower your anxiety about treatment and side effects by preparing now. Talk to your cancer care team about the things that worry you. Learn as much as you can about the cancer, your treatment plan, and how you might feel during treatment. Planning how you'll cope with possible side effects can make you feel more in control and ready for the changes that may come.

Suggestions to help you get ready for treatment:

- Stock your pantry and freezer with your favorite foods so you won't need to shop as often. Include foods and drinks you know you can eat even when you're sick.
- Cook in advance and freeze foods in meal-sized portions.
- Talk to your friends or family members about ways they can help with shopping and cooking or ask a friend or family member to take over those jobs for you. Be sure to tell them if there are certain things you have or might have trouble eating.
- Talk to your cancer care team about any concerns you have about eating. They can help you make diet changes to help manage side effects like constipation, diarrhea, weight loss, or nausea.
- If your treatment will include radiation to the head or neck, your cancer care team my want you to get a feeding tube placed in your stomach before starting treatment. This helps you get nutrition when it gets hard to swallow and can prevent problems with dehydration during treatment.



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 can help promote health and healing.
- 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
- Limit or avoid red or processed meats.

People 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.

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.

Food Safety During Cancer Treatment

Cancer and its treatment can weaken your body's immune system. This makes it harder for your body to fight infection. That makes food safety important during cancer treatment.

Below are some tips for handling, planning, and preparing food when your immune system is weaker because of your cancer or cancer treatment.

Food-handling tips

- Wash your hands with warm, soapy water for 20 seconds before and after preparing food and before eating.
- Refrigerate foods at or below 40° F.
- Keep hot foods hot (warmer than 140° F) and cold foods cold (cooler than 40° F).
- Thaw meat, fish, or poultry in the microwave or refrigerator in a dish to catch drips. Do not thaw at room temperature.
- Use defrosted foods right away, and do not refreeze them.
- Put perishable foods in the refrigerator within 2 hours of buying or preparing them. Egg dishes and cream- and mayonnaisebased foods should not be left out of the refrigerator for more than an hour.
- Wash fruits and vegetables well under running water before peeling or cutting. Do not use soaps, detergents, chlorine bleach solutions, or commercial produce rinses. Using a clean vegetable scrubber, scrub produce that has a thick, rough skin or rind (melons, potatoes, bananas, etc.) or any produce that has dirt on it.
- Rinse leaves of leafy vegetables one at a time under running water.
- Rinse packaged salads, slaw mixes, and other prepared produce again under running water, even when marked pre-washed.
 Using a colander can make this easier.
- Do not eat raw vegetable sprouts.
- Do not buy produce that already has been cut at the grocery store (like melon or cabbage).
- Wash tops of canned foods with soap and water before opening.
- Use different utensils for stirring foods and tasting them while cooking. Do not taste the food (or allow others to taste it) with any utensil that will be put back into the food.
- Throw away eggs with cracked shells.
- Throw out foods that look or smell strange. Never taste them!



Do not cross-contaminate

- Use a clean knife to cut different foods.
- In the refrigerator, store raw meat sealed and away from ready-to-eat food.
- Keep foods separated on the countertops.
 Use a different cutting board for raw meats than other foods.
- Clean counters and cutting boards with hot, soapy water, or you can use a fresh solution made of 1 part bleach and 10 parts water. Moist disinfecting wipes may be used if they're made for use around food.
- When grilling, always use a clean plate for the cooked meat.

Cook foods well

- Put a meat thermometer into the middle of the thickest part of the food to test for doneness. Test a thermometer's accuracy by putting it into boiling water. It should read 212° F.
- Cook meat until it's no longer pink, and the juices run clear. The only way to know for sure that meat has been cooked to the right temperature is to use a food thermometer. Meats should be cooked to 160° F and poultry to 180° F.

Microwave cooking

- Rotate the dish a quarter turn once or twice during cooking if there's no turntable in the microwave oven. This helps prevent cold spots in food where bacteria can survive.
- Use a lid or vented plastic wrap to thoroughly heat leftovers. Stir often during reheating.

Grocery shopping

- Check "sell-by" and "use-by" dates. Do not buy products (including meats, poultry, or seafoods) that are out of date. Pick only the freshest products.
- Do not use damaged, swollen, rusted, or deeply dented cans. Be sure that packaged and boxed foods are properly sealed.
- Choose unblemished fruits and vegetables.
- Do not eat deli foods.
- In the bakery, avoid unrefrigerated cream- and custard-containing desserts and pastries.
- Do not eat foods that are bought from self-serve or bulk containers.
- Do not eat yogurt and ice cream products from soft-serve machines.
- Do not eat free food samples.
- Do not buy cracked or unrefrigerated eggs.
- Get your frozen and refrigerated foods just before you check out at the grocery store, especially during the summer months.
- Refrigerate groceries right away. Never leave food in a hot car.

Dining out

- Eat early to avoid crowds.
- Ask that food be prepared fresh in fastfood restaurants.
- Ask for single-serving condiment packages and avoid self-serve bulk condiment containers.
- Do not eat from high-risk food sources, including salad bars, delicatessens, buffets and smorgasbords, potlucks, and sidewalk vendors.
- Do not eat raw fruits and vegetables away from home.
- Ask for pasteurized fruit juices. Avoid "fresh-squeezed" juices in restaurants.
- Be sure that utensils are set on a napkin or clean tablecloth or placemat, rather than right on the table.
- If you want to keep your leftovers, ask for a container, and put the food in it yourself rather than having the server take your food to the kitchen to do this.



Eating Well After Treatment

Most eating-related side effects go away after treatment ends, but some side effects can last for some time. If this happens to you, talk to your cancer care team, and work out a plan to manage the problem.

As you begin to feel better, you may have questions about eating a healthier diet. Just as you want to go into treatment with the best nutrition that your diet can give you, you'll want to do the best for yourself at this important time, too. Eating well will help you regain your strength, energy, rebuild tissue, and feel better overall.

Both during and after cancer treatment, survivors who aren't having problems with malnutrition or nutrition-related side effects can follow a healthy eating pattern.

The ACS recommends following a healthy eating pattern which 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)
- Fruits, especially whole fruits in a variety of colors
- Whole grain breads and cereals
- A healthy eating pattern *limits* or *does not include*:
 - Red and processed meats
 - Sugar-sweetened beverages
 - Highly processed foods and refined grain products
- It is best not to drink alcohol

Vegetables & Fruits



A healthy eating pattern includes consuming a variety of vegetables - dark green, red and orange, fiber-rich legumes (beans and peas), and others.

Vegetables (including beans) and fruits are complex foods, containing vitamins, minerals, fiber, and other substances that may help prevent cancer. Research is being done on the potential cancer preventing properties of certain vegetables and fruits (or groups of these), including dark green and orange vegetables, cruciferous vegetables (such as cabbage, broccoli, cauliflower, and brussel sprouts), soy products, legumes, allium vegetables (onions and garlic), and tomato products.

A healthy eating pattern includes eating fruits, especially whole fruits in a variety of colors.

In most studies, eating more vegetables and fruits probably protects against lung, oral (mouth), esophagus (tube connecting the mouth to the stomach), stomach, and colon cancer. Eating vegetables and fruits may lower cancer risk by their effects on calorie intake and body weight. Many vegetables and fruits are low in calories and high in fiber, as well as having a high-water content. This may help lower overall calorie intake, and thus help with weight loss and keeping unwanted weight off.

Few studies have been done on whether a diet that includes many vegetables and fruits can reduce the risk of cancer coming back (recurrence) or improve survival. Still, cancer survivors should consume a variety of colorful vegetables and fruits each day because of their other health benefits. Eating plenty of vegetables and fruits has also been linked with a lower risk of other chronic diseases, especially heart disease. It's not known which of the compounds in vegetables and fruits are most protective, so it's best to eat different kinds of colorful vegetables and fruits every day.

For cancer risk reduction, ACS advises following the United States Dietary Guidelines, which is to consume at least 21/2 to 3 cups of vegetables and 11/2 to 2 cups of fruit each day, depending upon a person's calorie requirements.

There is no strong evidence to suggest that being on a vegetarian diet reduces the risk of cancer recurring when compared to a diet that is high in vegetables, fruits, and whole grains and contains small amounts of meat and fish. But vegetarian diets can be good for you because they tend to be low in saturated fat and high in fiber, vitamins, and phytochemicals.

Below are some ways to ensure that you can eat the recommended amount of vegetables and fruits each day.

Breakfast

- Add half of a banana into your cereal.
- Pour half a cup of frozen berries into a cup of plain low-fat yogurt or on your oatmeal.
- Sprinkle fruit on top of a whole-grain waffle.
- Add spinach and tomato to your morning omelet.
- Slice red, orange, or yellow peppers with a hard-boiled egg.

Lunch or Dinner

- Try a pita sandwich or wrap loaded with vegetables.
- Enjoy a cup of hearty vegetable soup.
- Select a side salad with low-fat dressing.
- Steam veggies as a quick side dish.

Dessert

- Dish up a variety of berries.
- Savor a frozen treat made from 100% juice.
- Cut up some watermelon.

Other tips to help you reach your goal:

- At each meal, fill at least half your plate with fruits and vegetables.
- Layer lettuce, tomatoes, beans, onions, and other vegetables on sandwiches and wraps.
- Add tomato sauce and extra vegetables to pastas and vegetable soups.
- Challenge yourself to try new vegetables from the produce aisle, frozen foods section, or your local farmer's market.
- Keep dried fruits in your desk drawer and glove compartment (but watch the sugar content).
- Keep a bowl full of fresh veggies and fruits on your kitchen counter for quick snacking.

Whole Grains



A healthy eating pattern includes whole grains instead of refined grains.

Whole grains include the entire grain seed (usually called the "kernel") which consists of the bran, germ, and endosperm. Whole grains contain dietary fiber and other carbohydrates, protein, vitamins, minerals, and beneficial fats. Whole grains can be consumed as a single food such as brown rice, oatmeal or popcorn. Or, whole grains can be found as an ingredient in foods such as breads, cereals, crackers, and pasta.

Research has shown that whole grains probably lower colorectal cancer risk. In addition, whole grains and foods high in dietary fiber seem to be linked with a lower risk of being overweight or having obesity, which can also contribute to cancer risk. The United States Dietary Guidelines recommends getting at least half of your grains as whole grains. The American Cancer Society's guideline recommendation to choose whole grains is consistent with these guidelines.

Refined grains have been processed (also called milled) to remove the bran and germ from the grain. This is done to give the grains a finer texture, lighter color, and longer shelf life. However, this processing also removes dietary fiber, iron, vitamins, and other nutrients.

Enriched grains are fortified with key nutrients that were lost during processing. Examples of enriched grain products include enriched white rice and enriched white bread.

Improve your intake of whole grains

- Switch from refined to whole-grain versions of common foods such as bread, rice, and pasta. If your family is resistant to change, start by mixing half of your refined pasta with half whole-grain pasta.
- Limit refined grains and products made with refined grains such as cakes, chips, cookies, and crackers.
- Look for whole grains in the ingredient list when reading food labels.

Examples of whole grains are:

- Barley
- Brown Rice
- Buckwheat
- Bulgur
- Millet
- Source: FDA
- Oatmeal Ouinoa
- Rolled Oats
- Whole Wheat
- Whole Rve

■ Whole Grain

Sorghum

■ Whole Oats



Fiber

Many whole grains are good sources of dietary fiber, which we all need. Fiber is a type of carbohydrate the body can't digest. It's not broken down into sugar like other carbohydrates, so it passes through the body undigested. Fiber slows the breakdown of starch into glucose, helping to maintain steadier blood sugar levels. This slow breakdown allows you to feel full longer which may help some in controlling their weight.

There are two types of dietary fiber, and most plants contain some of each kind:

Soluble fiber dissolves in water to form a thick gel-like substance in the stomach. It is broken down in the large intestine and provides some calories.

Foods that contain soluble fiber are: beans, peas, apples, blueberries, oatmeal, nuts, seeds, and lentils.

Soluble fiber interferes with the absorption of dietary fat and can help lower LDL cholesterol (low-density lipoprotein – sometimes called bad cholesterol) in the blood.

Insoluble fiber does not dissolve in water and passes through the intestines intact and is not a source of calories.

Foods that contain insoluble fiber are: nuts and seeds, legumes, tomatoes, carrots, cucumbers, wheat bran, and whole grain foods.

Insoluble fiber provides "bulk" for stool formation and speeds up movement of food and waste through the digestive system, which can help prevent constipation.

Both soluble and insoluble fiber make you feel full, which may help you eat less and stay satisfied longer. Diets higher in fiber promote intestinal regularity and can reduce the risk of developing cardiovascular disease.

Dietary fiber, found in plant foods such as legumes, whole grains, fruits and vegetables, and nuts and seeds, is probably linked with a lower risk of colorectal cancer, as well as a lower risk of being overweight or having obesity. Fiber can also affect bacteria in the gut, which might also play a role in some cancers.

Studies of **fiber supplements**, including psyllium fiber and wheat bran fiber, have not found that they reduce the risk of polyps in the colon. Thus, the American Cancer Society recommends that you get most of your dietary fiber from whole plant foods, such as vegetables, fruits, whole grains, nuts and seeds.



The Recommended Daily Value (DV) for fiber is 25 grams per day based on a 2,000 calorie diet.

Most people in the United States don't get nearly enough dietary fiber. According to one source, people who live in the United States eat an average of 15 grams of fiber per day. Compare that to the figures below.

Daily Recommended Fiber Intake for Adults

Men 50 or younger 38 grams Men 51 or older 30 grams Women 50 or younger 25 grams Women 51 or older 21 grams

At this time, we don't know if fiber itself can affect cancer risk or survival. However, foods containing dietary fiber, such as beans, vegetables, whole grains, nuts and fruits, are strongly linked with a lower risk of colorectal cancer. These foods also have other health benefits, such as reduced risk of heart disease. For breast and prostate cancer survivors, eating a healthy diet pattern rich in these foods is also associated with lower risk of death.

Fat

Fat along with protein and carbohydrates, provides energy to the body in the form of calories. The body breaks down fats and uses them to store energy, insulate body tissues, and transport some types of vitamins through the blood.

Although we need fats in our diet, we should eat them in moderation and choose them wisely.

The "Good" Fats

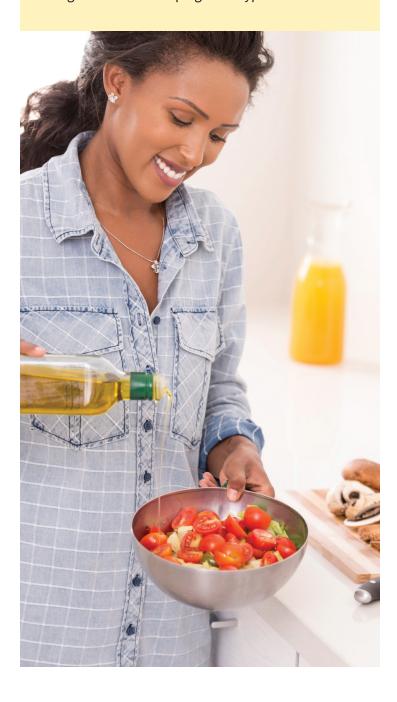
- Monounsaturated fats: found in canola, peanut and olive oils; avocados; nuts such as almonds, hazelnuts, and pecans; seeds such as sesame or pumpkin.
- Polyunsaturated fats: found in corn, sunflower, flaxseed, and safflower oils; walnuts; seafoods such as salmon, tuna, and mackerel (which are rich in omega-3 fatty acids).

The "Bad" Fats

- Saturated fats: found in animal foods, such as meat and dairy products, and in coconut palm and palm kernel oils. Also called solid fats, saturated fats, and not believed to be as harmful as trans fats.
- **Trans fats:** found primarily in processed foods that contain partially hydrogenated oils, which are added to foods to improve shelf life, flavor stability, and texture. Trans fats are found in small, naturally occurring amounts in red meats, butter, and milk, but those are not thought to have the same harmful effects as the trans fats in processed foods.

Several studies have looked at the link between fat intake and survival after breast cancer. Results have been mixed. The most recent research hasn't found a consistent link between the amount of fat eaten and chance of death after breast cancer. Some studies suggest that trans fat intake might be linked with an increased risk of death after breast cancer, but this needs to be studied further. Trans fats also have harmful effects on the heart, such as raising blood cholesterol levels. Although trans fats are being removed from the food supply, survivors (especially those at increased risk of heart disease) should avoid trans fats as much as possible.

Although it's not clear that total fat intake affects cancer outcomes, diets very high in fat tend to be high in calories, too. This can lead to excess body weight, which is linked to a higher risk of developing some types of cancer.



Protein



A healthy eating pattern limits or does not include red and processed meats.

Consuming red meat or processed meats (bacon, hot dogs, and deli meats) increases the risk of colorectal and some other cancers. Some research also suggests that frying, broiling, or grilling meats at very high temperatures creates chemicals that might increase the risk of some types of cancer (especially meats that are higher in fat and poultry with skin).

Research shows that a healthy eating pattern, which tends to be low in red and processed meats, is associated with higher overall survival for people with breast and prostate cancer. On the other hand, a "Western-style" diet, which is high in red and processed meat, high-fat dairy, refined grains, french fries, sweets, and desserts, is associated with shorter survival in breast, colorectal, and prostate cancers, and also may increase the risk that colorectal cancer will come back.

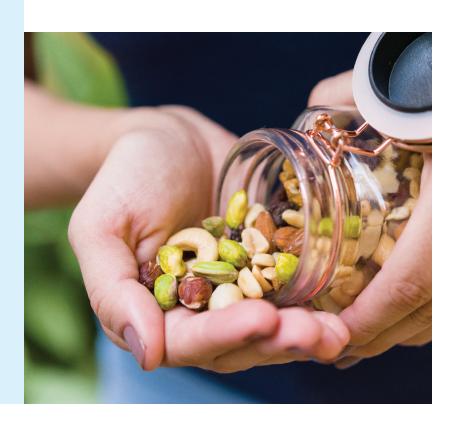
Protein helps build and repair body tissue and keeps the immune system healthy. When your body doesn't get enough protein from the foods you eat, it might use the protein stored in your muscles. When this happens, it may take you longer to heal and recover. After surgery or other treatment for cancer, extra protein is usually needed to heal tissues and help fight infection.

There are two types of protein: animal proteins and proteins that comes from plants. Good sources of healthy animal proteins include fish, poultry, eggs, and low-fat dairy products. Plant-based proteins are foods like nuts and nut butters, seeds, dried beans, peas and lentils, and soy foods.

Soy foods are an excellent source of protein and can be a good option for meals without meat. Soy contains many phytochemicals, including isoflavones, some of which have weak estrogen activity and seem to protect against hormonedependent cancers in animal studies. Other compounds in soy have antioxidant properties and may have anticancer effects.

There's a great deal of interest in the possible role of soy foods in reducing cancer risk, especially breast cancer risk. Some studies suggest that eating traditional soy foods like tofu may lower breast cancer risk, especially among Asian women who may have consumed soy in larger amounts for longer time periods, but evidence is still limited.

For the breast cancer survivor, current research finds no harmful effects from eating soy foods and indicates that consuming soy foods rich in isoflavones may lower the risk of recurrence. These foods may even help tamoxifen work better. However, be careful using soy supplements, as little is known about their helpful and harmful health effects in cancer survivors.



Sugar



A healthy eating pattern limits or does not include consumption of sugar-sweetened beverages.

Sugar intake has not been shown to increase the risk of getting cancer or having it get worse (progress). Still, sugars and sugar-sweetened drinks add large amounts of calories to the diet and can cause weight gain, which we know can affect cancer outcomes.

Added sugars and other high-calorie sweeteners (such as highfructose corn syrup) are often used in sugar-sweetened beverages and energy-dense foods (for example, traditional "fast food" or heavily processed foods). They are linked with a higher risk of weight gain or obesity, which can increase the risk of many types of cancer.

Energy-dense and highly processed foods are also often higher in refined grains, saturated fat, and sodium.

The United States Department of Agriculture Guidelines recommend limiting calories from added sugars and saturated fat, and specifically getting less than 10% of your calories a day from added sugars.

Source: NHANES Source: FDA

Rethink Your Drink

According to a 2014 study by the Centers for Disease Control and Prevention, 59% of adults living in the Midwest reported consuming one or more sugary drinks on a daily basis. Most people try to reduce their calorie intake by focusing on food, but another way to cut calories may be to change what you drink.

Many people do not realize how calories in beverages contribute to their daily intake. For example:

Type of Beverage	Calories in 12 ounces
Latte with whole milk	< 199
Fruit punch	192
100% apple juice	192
100% orange juice	168
Lemonade	168
Regular cola	136
Sports drink	99

Source: CDC

Processed Foods



A healthy eating pattern limits or does not include highly processed food and refined grain products.

The health impact of highly processed foods is an area of increasing public concern. Some types of processing — such as peeling, cutting, and freezing fresh vegetables and fruit for later consumption — have important health benefits that increase the safety, convenience and taste of foods. But there is a spectrum of food processing, from less processed foods such as whole grain flour and pasta, to highly processed foods that include

industrially produced grain-based desserts, ready-to-eat or readyto-heat foods, snack foods, sugar-sweetened beverages, candy, and other foods that often do not resemble their original plant or animal sources.

Highly processed foods tend to be higher in fat, added sugars, refined grains, and/or sodium, and have been linked with unwanted health outcomes, including cancer, in a small number of studies. Still, up to 60% of the calories consumed per day in United States households is from highly processed foods and beverages.

Dietary Supplements



Survivors should try to get the nutrients they need through food, not supplements. Use dietary supplements only when your doctor tells you to take them because of a deficiency of a certain nutrient. Do not take vitamins or other supplements to get higher than recommended levels of nutrients — this may do more harm than good.

There is no evidence at this time that dietary supplements can lower the chance of cancer coming back or improve survival.

In fact, studies have shown that high-dose supplements of betacarotene can increase the risk of lung cancer in people who are already at higher risk of this cancer and should be avoided.

It's best to talk with your cancer care team before starting any vitamin or other dietary supplement.



Organic Foods





Organic foods describe those foods grown without pesticides and genetic modifications (changes). It's also used for meat, poultry, eggs, and dairy products that come from animals that are not given antibiotics or growth hormones. It's commonly thought that organic foods may be better for you because they reduce exposure to certain chemicals. It has also been suggested that their nutrient makeup may be better than non-organic foods.

At this time there is not enough research in people to clearly state that organic foods are better than other foods for reducing the risk of getting cancer, having the cancer get worse, or of having the cancer come back.

Recipes



Serve up these delicious recipes from Quick & Healthy: 50 Simple, Delicious Recipes for Every Day cookbook.

Chili in a Hurry

1 pound lean ground turkey

- 4 poblano peppers (or 2 green bell peppers), seeded and chopped, divided use
- 1 (14.5-ounce) can diced tomatoes with chili seasonings
- 1 (15-ounce) can kidney beans, rinsed and drained 3 cups water 1½ tsp. ground cumin, or to taste ½ cup ketchup Salt and freshly ground black pepper
- Heat a large saucepan over medium-high heat.
- Add turkey and all but ¼ cup of the peppers. Cook 4 minutes, or until turkey is browned, stirring frequently and breaking up the larger pieces as it cooks.
- Add the tomatoes, beans, water, and cumin and bring to a boil. Reduce heat and simmer, uncovered, for 20 minutes, or until thickened slightly.
- Remove from heat and stir in the ketchup. Let stand 10 minutes to allow flavors to develop; season with salt and pepper.
- Serve topped with the remaining ¼ cup of peppers.



Calories per serving: 340 Servings: 4

Spinach-Provolone Baked Pasta

6 ounces whole grain spaghetti, broken into thirds, or penne ½ cup small curd cottage cheese 1½ teaspoons dried Italian seasoning

1¾ cups reduced-sodium marinara sauce, divided use 2 cups fresh baby spinach 4 deli slices sharp provolone cheese (about 3 ounces)

- Preheat oven to 350 degrees.
- Cook pasta according to package directions. Drain.
- Meanwhile, combine cottage cheese and Italian seasoning in a small bowl.
- Combine the drained pasta with 1 cup of the marinara sauce in a medium bowl and toss to coat. Place half the pasta in a 2-quart baking dish. Spoon teaspoons of the cottage cheese mixture evenly over the pasta. Top with spinach and remaining pasta mixture and spoon the remaining 34 cup marinara sauce evenly over all. Cover and bake 20 minutes.
- Top with provolone and bake, uncovered, 5 minutes or until melted.



Calories per serving: 340 Servings: 4

All recipes are reprinted with permission from Quick & Healthy: 50 Simple Delicious Recipes for Every Day, © 2019, American Cancer Society. To purchase cookbook, go to Amazon.com and search "Quick and Healthy Cookbook American Cancer Society."

Jerked Chicken, Pineapple, and Red Peppers

4 (4-ounce) boneless, skinless chicken breasts, flattened to an even thickness

1 - 2 Tbsp. jerk seasoning 1 fresh pineapple, peeled and cored 1 red bell pepper, cut into ½-inchthick rings

Salt and freshly ground black pepper

2 limes, divided use

4 tsp. extra virgin olive oil

- Sprinkle both sides of the chicken with the jerk seasoning. Let stand 10 minutes.
- Meanwhile, heat a grill or grill pan to medium-high heat.
- Cut the pineapple in half lengthwise and cut into eight wedges. Coat the pineapple wedges and bell pepper with cooking spray.
- Grill pineapple and bell pepper for 12 to 14 minutes or until tender, turning occasionally.
- Place pineapple on serving platter. Chop the peppers and season with salt and pepper.
- Coat both sides of the chicken with cooking spray. Cook 4 minutes on each side or until no longer pink in center. Place chicken on platter and top with the peppers. Squeeze the juice of 1 lime evenly over all and spoon the oil evenly over the peppers. Cut the remaining lime into four wedges and serve alongside.



Calories per serving: 230 Servings: 4

Smashed Avocado and Turkey Burger

1 pound lean ground turkey Salt and freshly ground black pepper

1 avocado, peeled and pitted

1 jalapeño pepper, seeded (if desired) and minced

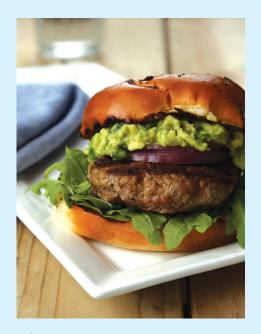
2 Tbsp. freshly squeezed lemon juice

4 whole wheat or onion rolls

2 cups arugula

4 thin slices red onion, optional

- Shape turkey into four 1/2-inch-thick patties. Season with salt and pepper.
- Heat a grill or grill pan to medium-high heat. Coat grill rack with cooking spray and cook the patties 5 to 6 minutes on each side or until no longer pink in center.
- Meanwhile, roughly mash the avocado with jalapeño and lemon juice. Season with salt and pepper.
- Coat cut side of the rolls with nonstick cooking spray and grill 30 to 45 seconds on each side or until grill marks appear.
- Place the arugula on the bottom half of each roll. Top with onion slices, if desired, turkey patties, and the avocado mixture. Top with remaining bun halves and press down gently to adhere.



Calories per serving: 360 Servings: 4

Alcohol



It is best not to drink alcohol.

During cancer treatment, it may be best for patients to avoid or limit alcohol. Many of the medicines used to treat cancer are broken down by the liver, and alcohol, by causing liver inflammation, could slow the breakdown of these medicines, increasing side effects.

It may also be best to avoid or limit alcohol if you are starting treatment that will put you at risk for mouth sores, such as head and neck radiation or many types of chemotherapy. Alcohol, even in the small amounts used in mouthwashes, can irritate mouth sores, and even make them worse.

Cancer survivors are encouraged to make lifestyle changes to decrease their risk of developing a second cancer. Studies have found a link between alcohol intake and the risk of getting a number of cancers, such as cancer of the mouth, throat (pharynx), voice box (larynx), esophagus, liver, colon and rectum, and breast. For these cancers, it is best to avoid or limit alcohol intake. There isn't enough information at this time to know if drinking alcohol raises the risk of recurrence for other cancer types.

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.

One drink is considered 12 ounces of regular beer, 5 ounces of wine, or 1.5 ounces of 80-proof distilled spirits.



Drink More Water



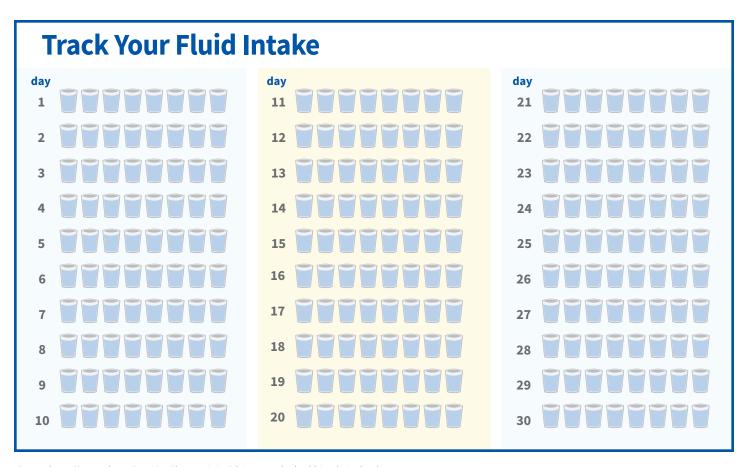
All body cells need water to function. If you don't take in enough fluids or if you lose fluids through vomiting or diarrhea, you can become dehydrated (your body doesn't have as much fluid as it should). You get water from the foods you eat, but a person should also drink about eight 8-ounce glasses of fluids each day to be sure that all the body cells get the fluids they need. To help increase your fluid intake, include hydrating drinks like juices, sports drinks, and caffeine-free liquids. Keep in mind that all fluids (soups, milk, even ice cream and gelatin) count toward your fluid goals.

Take the 30-Day Water Challenge

Drinking enough water every day is good for overall health. As plain drinking water has zero calories, it can also help with managing body weight and reducing caloric intake when substituted for drinks with calories, like regular soda. Water helps your body by keeping your temperature normal, lubricating and cushioning joints, protecting your spinal cord and other tissues, and getting rid of wastes through urination, perspiration, and bowel movements.

During 2015–2018, United States children and adolescents drank an average of 23 ounces of plain water daily, and United States adults drank an average of 44 ounces.

Below is a tracker to help you evaluate your water consumption.



Source: https://www.cdc.gov/nutrition/data-statistics/plain-water-the-healthier-choice.html



Take Control of Your Weight

Managing weight is a challenge for most people in the United States. In fact, according to the Centers for Disease Control and Prevention (CDC), more than 70% of American adults are overweight.

Being overweight or obese is linked to an overall increased risk of certain kinds of cancer. For some types of cancer, excess body weight is linked to a higher risk of cancer coming back, as well as getting a second, different cancer.

According to research from the American Cancer Society, excess body weight is thought to be responsible for about 11% of cancers in women and about 5% of cancers in men in the United States, as well as about 7% of all cancer deaths

Excess body weight is linked with an increased risk of many types of cancer, including:

- Breast cancer (in women past menopause)
- Colon and rectal cancer
- Endometrial cancer (cancer of the lining of the uterus)
- Esophagus cancer
- Gallbladder cancer
- Kidney cancer
- Liver cancer
- Ovarian cancer
- Pancreas cancer
- Stomach cancer
- Thyroid cancer
- Multiple myeloma
- Meningioma (a tumor of the lining of the brain and spinal cord)

Being overweight or obese might also raise the risk of other cancers, such as:

- Non-Hodgkin lymphoma
- Male breast cancer
- Cancers of the mouth, throat, and voice box
- Aggressive forms of prostate cancer

The link to body weight is stronger for some cancers than for others. For example, excess body weight is thought to be a factor in more than half of all endometrial cancers, whereas it is less of a factor in other cancers.

The timing of weight gain might also affect cancer risk. Being overweight during childhood and young adulthood might be more of a risk factor than gaining weight later in life for some cancers. For example, some research suggests that women who are overweight as teenagers (but not those who gain weight as adults) may be at higher risk for developing ovarian cancer before menopause. Clearly, more research is needed to better define the links between body weight and cancer.





Research on how losing weight might lower the risk of developing cancer is limited. Still, there's growing evidence that weight loss might reduce the risk of some types of cancer, such as breast cancer (after menopause) and endometrial cancer.

Some body changes that occur as a result of weight loss suggest it may reduce cancer risk. For example, overweight or obese people who intentionally lose weight have reduced levels of certain hormones that are related to cancer risk, such as insulin, estrogens, and androgens.

During cancer treatment, focusing on maintaining (or even increasing) your muscle mass through diet and physical activity can be useful. Side effects of cancer treatment can cause changes in taste and smell, reduce appetite, or cause digestive disturbances that can lead to weight loss, loss of muscle mass, and poor nutritional status. People 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.

After treatment, survivors who are overweight might 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.



While we still have much to learn about the link between weight loss and cancer risk, people who are overweight are encouraged to get to and stay a healthy weight. Aside from possibly reducing cancer risk, maintaining a healthy weight can have many other health benefits, such as lowering the risk of heart disease and diabetes. Losing even a small amount of weight has health benefits and is a good place to start.



Setting Goals & Staying Motivated

Setting SMART Goals

In order to set goals, you have to know your current lifestyle and where you want to be. This is true whether you are driving across town or working to make healthy changes in your life. There's no doubt about it: when you are trying to make lifestyle changes, goal-setting is critical. The smarter your goal, the more likely you are to be successful.

Specific: The more specific you are in setting your goal, the more successful you'll be in developing an effective plan of action to achieve it. Instead of "I want to eat more fiber," you might start with "I will add two servings of vegetables and fruits to my diet each day." Rather than "I'm going to walk more," try "I will walk one more mile each day."

Measurable: A goal won't do you any good if it can't be measured – if you have no way of knowing whether you've achieved it. "I want to have more energy" isn't especially helpful to you. "I want to walk for at least 30 minutes each day" is a better goal because it's specific and measurable.

Action-Oriented:

When defining a specific goal, state just what actions you need to take to achieve the goal. "I will add a serving of fruit to my breakfast and add one more vegetable serving at dinner." "I will add 10 minutes to my morning walk and 10 minutes to my after-dinner walk."

Realistic: Be realistic in your expectations of yourself and what you expect to achieve. Take large or long-term goals and break them down into smaller, more manageable goals. Running a marathon may not be a realistic goal, but training for a 5K and building up to a 10K might be.

Timed: Setting timelines provides direction in planning short-term goals and actions to achieve longer-term goals. You might set a goal like the following: "Starting on Monday, I will begin to add 20 minutes of activity to my daily routine. After three weeks, I will increase the amount to 30 minutes daily."



Maintaining Healthy Habits

Are you worried about keeping up with the new changes you've made in food and exercise? You may find old habits start to come back leading to a lapse.

A lapse is defined as a temporary and small slip in your efforts to improve your health. It could be over-eating at a meal for a day or two. It could be skipping your exercise routine during a vacation. Lapses are a natural part of life – it is okay! By itself, a lapse will not result in going back to all of your previous habits, so don't get discouraged.

A problem arises if you fail to deal with the lapse, because it can grow into a relapse. A **relapse** is defined as a return to your earlier eating and physical activity habits. A relapse typically happens as a result of several small lapses that lead into a full relapse. The best way to prevent a relapse is to identify the lapses as they occur and deal with them before they turn into a relapse.



Comeback Tips

A lapse is a normal part of a lifestyle change process; it doesn't mean that you failed. You can learn how to respond when you lapse. Below are some tips to help:

- Take action right away. Get back into your routine immediately!
- Maintain a positive attitude.
- Review your recent nutrition and activity habits.
- Plan out your meals, snacks, and physical activity for the next several days.
- Reflect on the great progress you have made thus far and use it as inspiration to get back on track.

Reward Yourself

Believe it or not, rewarding yourself can help you keep your commitment to eat better and be more active. It's important to choose a reward that helps you continue moving toward your goal to live healthier. So instead of treating yourself to some chocolate for meeting your physical activity goal for the week, try one of these rewards:

- A manicure or pedicure
- New clothes or shoes
- A piece of jewelry
- A bubble bath
- Membership to a local gym
- Unwind with a movie
- Schedule a night out with a friend
- Download new workout music

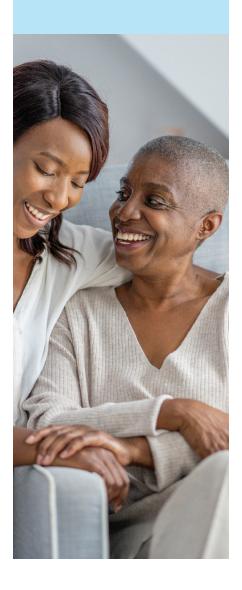
Support Services

ACS 24/7 Helpline can be contacted at **1-800-227-2345** to support people dealing with cancer. They can connect you with trained cancer information specialists who will answer questions about a cancer diagnosis and provide answers and a compassionate ear. They can also help you find free or low-cost resources, such as those listed below.

- Lodging During Treatment For cancer patients, getting the right treatment sometimes requires traveling away from home. The cost of lodging can create barriers to treatment that are known to add to disparities in cancer outcomes. The American Cancer Society has resources that can help people find free or reduced-rate lodging closer to where they are getting treatment.
- Rides to Treatment If transportation to treatment is a concern, we may be able to help. In some communities, our Road To Recovery volunteer drivers provide rides to patients who have no way to get to their cancer treatment. We also provide transportation grants to local healthcare systems partners so they can provide transportation assistance to their patients.

More Resources

- **Reach to Recovery** matches breast cancer patients with someone who has "been there." You can match with a trained volunteer breast cancer survivor at *reach.cancer.org.*
- tlc (Tender Loving Care) offers products for people getting cancer treatment that causes hair loss. It also offers advice on how to use these products. Products include wigs, hairpieces, headwear, and mastectomy products. To order products or catalogs call 1-800-850-9445, or visit www.tlcdirect.org.
- Cancer Survivors Network (CSN) is a safe place to connect with others who share similar interests and experiences. CSN is designed for anyone with cancer, their caregivers, families, and friends, who can benefit from the help and support. Learn more at csn.cancer.org.
- Caregiver Resources are available to provide information that can help you with the everyday needs of your loved one, as well as self-care techniques to improve your own quality of life. Caregiver support is available at <u>cancer.org/treatment/caregivers</u>.
- CaringBridge is a free online tool that helps people dealing with illnesses like cancer stay in touch with their friends, family members, and support network by creating their own personal page where they share their journey and health updates. Go to <u>caringbridge.org</u> to learn more.







The American Cancer Society and Kohl's have partnered to create the *Kohl's Healthy Families* program which supports families through prevention, screening, diagnosis, and treatment of cancer.

Visit **cancer.org** for more information.



