

Nutrition for the Person With Cancer During Treatment



What's Inside

| | |
|---|----|
| Diet and nutrition during cancer treatment | 4 |
| Diet and nutrients | 4 |
| How cancer and cancer treatment can affect nutrition | 9 |
| Before treatment | 10 |
| Make plans | 11 |
| During treatment | 12 |
| Eat well | 12 |
| Tips to increase calories and protein | 13 |
| Don't forget about physical activity | 14 |
| Managing common eating problems caused by cancer treatments | 14 |
| Loss of appetite | 15 |
| Constipation | 16 |
| Diarrhea | 17 |
| Mouth dryness or thick saliva | 18 |
| Mouth sores | 20 |
| Dental and gum issues | 21 |
| Nausea and vomiting | 22 |
| Swallowing problems | 24 |
| Taste and smell changes | 25 |
| Weight changes | 27 |
| Dehydration | 28 |

For people with weakened immune systems 29
After treatment 32
 Tips for healthy eating after cancer 32

Eating the right kinds of foods before, during, and after cancer treatment can help you feel better and stay stronger.

This information is not meant to replace the advice of a medical professional. If you have any questions or concerns about your nutritional needs, you should talk to a doctor, nurse, or dietitian. A registered dietitian (RD) or a registered dietitian nutritionist (RDN) can be one of your best sources of information about your diet and what to eat during cancer treatment. Some dietitians are board-certified specialists in oncology nutrition and have the letters “CSO” after their names. If you’re going to meet with a dietitian, be sure to write down your questions before your meeting so you won’t forget anything. It is also a good idea to bring someone with you to help remember what is being said.

Contact the Academy of Nutrition and Dietetics at eatright.org for more information or to find a dietitian

Diet and nutrition during cancer treatment

Good nutrition is important for everyone, but even more so when you have cancer. The nutrition needs of people with cancer during treatment depend on the type of cancer they have, which treatments they get, and what side effects they have. Your cancer care team can help you identify your nutrition goals and plan ways to help you meet them. Eating well while you are being treated for cancer may help you:

- Feel better
- Keep up your strength and energy
- Maintain your weight and your body's store of nutrients
- Better tolerate treatment side effects
- Lower your risk of infection
- Heal and recover

Diet and nutrients

Eating well means eating a variety of foods to get the nutrients your body needs. These nutrients include proteins, fats, carbohydrates, water, vitamins, and minerals.

Proteins

Everyone needs protein for growth, to repair body tissue, and to keep 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. People with cancer often need more protein than usual. 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, lean meat, eggs, and low-fat dairy products. Everyone should limit the amount of red and processed meat they eat.

Plant-based proteins are foods like nuts and nut butters, seeds, dried beans, peas and lentils, and soy foods.

Fats

Fats and oils are sources of energy for the body. The body breaks down fats and uses them to store energy, insulate body tissues, and transport some types of vitamins through the blood.

You may have heard that some fats are better for you than others. When thinking about the effects of fats on your heart and cholesterol level, choose monounsaturated and polyunsaturated fats over saturated fats or trans fats.

Monounsaturated fats are found mainly in vegetable oils like olive, canola, and peanut oils.

Polyunsaturated fats are found mainly in vegetable oils like safflower, sunflower, corn, and flaxseed. They are also the main fats found in seafood.

Saturated fats are mainly found in animal sources like meat and poultry, whole or reduced-fat milk, cheese, and butter. Some vegetable oils like coconut, palm kernel oil, and palm oil are saturated. Saturated fats can raise cholesterol and increase your risk for heart disease.

Trans fats are formed when vegetable oils are processed into solids, such as margarine or shortening. These fats are being removed from the food supply, but may still be found in snack foods and baked goods made with partially hydrogenated vegetable oil or vegetable shortening. Trans fats are also found naturally in some animal products, like full-fat dairy products. For health, avoid processed food that contain trans fats.

Carbohydrates

Carbohydrates are the body's major source of energy. Carbohydrates fuel the body for physical activity and proper organ function. The best sources of carbohydrates – fruits, vegetables, and whole grains – also supply needed fiber, vitamins and minerals, and phytonutrients to the body's cells. (Phytonutrients are healthy, natural substances found in plant-based foods.)

Whole grains or foods made from them have all naturally occurring nutrients of the entire grain seed. Whole grains are found in cereals, breads, and flours. Some whole grains, such as

quinoa, brown rice, or barley, can be used as side dishes or part of an entrée.

Fiber is the part of plant foods that the body can't digest. There are two types of fiber. Insoluble fiber helps to move food waste out of the body quickly, and soluble fiber binds with water in the stool to help keep stool soft.

Other sources of carbohydrates include bread, potatoes, rice, spaghetti, pasta, cereals, corn, peas, and beans.

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.

Vitamins and minerals

The body needs small amounts of vitamins and minerals to help it function properly. Most are found naturally in foods. They are also sold as pill and liquid supplements. They help the body use the energy (calories) found in foods.

If you're thinking of taking a vitamin or supplement, be sure to discuss this with your cancer care team first. Some can be harmful, especially when taken in large doses. In fact, large doses of some vitamins and minerals may make cancer treatments less effective.

Antioxidants

Antioxidants are substances that protect cells from damage caused by the process of oxidation during metabolism. They include vitamins A, C, and E; selenium and zinc; other phytonutrients, including carotenoids and flavonoids; and some enzymes.

Antioxidants are naturally found in fruits, vegetables, and other foods. If you are thinking of taking antioxidants as supplements, talk to your cancer care team first.

Phytonutrients

Phytonutrients or phytochemicals are natural substances found in plants; it is what makes them colorful. Just like antioxidants, it is best to eat foods that contain them rather than taking supplements.

Herbs

People have used herbs in foods as medicine for thousands of years to help manage disease with mixed results. Today, herbs are found in many dietary products and supplements, like pills, liquid extracts, teas, and ointments. Many of these products are safe to use, but others can cause harmful side effects. Some can even interfere with your cancer treatments prescribed by your doctor. If you're thinking about using products containing herbs, always talk with your cancer care team or dietitian first.

Safety considerations

Many people believe that if they find a pill or supplement in stores, it's safe and it works. The Food and Drug Administration (FDA) has rules to help make sure that supplements contain the ingredients listed on the label. But information about the supplement's safety and its effects on the body are not required by the FDA rules. The FDA does not make manufacturers of these products print possible side effects on their labels. And the FDA can't pull a dietary supplement or herbal product from the market unless they have proof that the product is unsafe.

Tell your cancer care team about any over-the-counter products or supplements you are using or are thinking about using. Some other safety tips:

- Check the product labels for both the quantity and concentration of active ingredients in each product.
- Stop taking the product and call your cancer care team right away if you have problems like wheezing, itching, numbness, tingling in your limbs, or any other new side effects.

How cancer and cancer treatment can affect nutrition

Choosing and eating nutritious foods during cancer treatment can help you manage your energy levels, feel better, and stay stronger.

Depending on the type of treatment, people with cancer can have different side effects. Some of the more common side effects that can affect eating are:

- Loss of appetite
- Constipation
- Diarrhea
- Mouth dryness or thick saliva
- Mouth sores and pain
- Dental and gum problems
- Nausea and vomiting
- Swallowing problems
- Taste and smell changes
- Weight changes
- Dehydration
- Feeling very tired (fatigue)
- Anxiety or depression

Visit [cancer.org/sideeffects](https://www.cancer.org/sideeffects) for more information on cancer-related side effects.

Before treatment

Until you start treatment, you won't know what, if any, side effects you may have or how you will feel. Although every individual's experience may be different, there are several steps to take to be prepared for changes to your diet or appetite due to cancer treatment:

Make plans

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. You might meet with a dietitian to assess and monitor your diet and nutritional status before, during, and after treatment. Planning how you'll cope with possible side effects can make you feel more in control and ready for changes if they come.

Here are some tips to help you prep your kitchen before treatment begins:

- Stock your pantry and freezer with your favorite foods so you won't need to shop as often.
 - Include foods you know you can eat even when you're sick.
 - If you need help with food costs, some government programs may be able to help. Examples of these programs include Supplemental Nutrition Assistance Program (SNAP) and Meals on Wheels. To ask about SNAP by phone, call your state or local health department or social services department, or call 1-800-221-5689 to get the local number. Call 1- 888-998-6325 or visit the Meals on Wheels website at [mealsonwheelsamerica.org](https://www.mealsonwheelsamerica.org) for more information about their program.
- 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 foods or spices you might have trouble eating.

- Talk to your cancer care team about any concerns you have about eating. Ask them what side effects you can expect from treatment and how the side effects can be managed.

During treatment

Eat well

Your body needs a healthy diet to function at its best. This is even more important if you have cancer. In fact, some cancer treatments work better in people who are well-nourished and are getting enough calories and protein. Try these tips:

- Don't be afraid to try new foods. Some things you may never have liked before might taste good during treatment.
- Choose different 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 contain 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.

People getting cancer treatment may have problems eating, such as poor appetite; problems chewing, swallowing, or digesting; and feeling very tired from the treatment or cancer. All of these issues can affect their nutritional status.

Tips to increase calories and protein

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 meals and 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 prepared liquid supplements.
- Drink most of your fluids between meals instead of with meals. Drinking fluids with meals can make you feel too full.
- Try homemade or prepared nutrition bars and puddings.

Visit [cancer.org/healthy/eat-healthy-get-active/eat-healthy/find-healthy-recipes.html](https://www.cancer.org/healthy/eat-healthy-get-active/eat-healthy/find-healthy-recipes.html) for ideas on healthy recipes.

Don't forget about physical activity

Physical activity has many benefits. It helps you maintain muscle mass, strength, stamina, and bone strength. It also can help reduce anxiety, depression, fatigue, and lymphedema, as well as improve health-related quality of life, bone health, and sleep.

Still, it is important for you to check with your cancer care team before starting any exercise program for advice on choosing a program that is safe and effective for you.

Managing common eating problems caused by cancer treatments

Cancer and cancer treatments can cause side effects that affect how well you can eat and drink. Following are some of the more common problems and tips on how to deal with them. Always tell your cancer care team about any problems you have; the problems can often be treated or kept from getting worse. Your cancer care team can also help you make diet changes to help manage side effects like constipation, weight loss, nausea, or other problems that affect your eating. Ask your cancer

care team if they have a dietitian for personalized nutritional counseling. If your cancer center does not have a dietitian, visit the Academy of Nutrition and Dietetics website at [eatright.org](https://www.eatright.org) to conduct a “Find a Nutrition Expert” search.

Loss of appetite

Cancer and its treatment can cause changes in your eating habits and your desire to eat. Treatment-related side effects like pain, nausea, and constipation can also cause loss of appetite. Managing any problems that cause appetite changes may help you eat better.

What to do

- Eat several small meals and snacks throughout the day, rather than 3 large meals.
- Avoid large amounts of fluids with meals, or take only small sips of fluids to keep from feeling too full. Drink most of your fluids between meals.
- Make eating more enjoyable by setting the table with pretty dishes, playing your favorite music, watching TV, or eating with someone.
- Be as physically active as you can, as long as your cancer care team says it's OK.
- Keep high-calorie, high-protein snacks on hand, like hard-cooked eggs, nuts, nut butters, or canned tuna or chicken.

Constipation

Being constipated means difficulty having bowel movements or fewer bowel movements a week than normal.

What to do

- Ask your cancer care team to help you set up a daily bowel care plan. They might suggest over-the-counter products such as stool softeners or fiber supplements.
- Try to eat at the same times each day. If possible, try to have a bowel movement at the same time each day.
- Drink more fluids, unless instructed otherwise by your cancer care team.
- If it's OK with your cancer care team, eat more high-fiber foods every day, such as whole-grain breads and cereals; fresh raw fruits with skins; fresh raw vegetables; fruit juices; and dates, apricots, raisins, prunes, prune juice, and nuts.
- Avoid foods and drinks that cause gas, such as apples, avocados, beans and peas, cabbage, broccoli, milk, and fizzy drinks, until the constipation is gone.
- Avoid chewing gum and using straws to drink. Using them can cause gas.
- Avoid or cut back on any foods that may cause constipation, such as cheese or eggs.
- Always ask your cancer care team before using stool softeners or laxatives. Don't use enemas or suppositories, unless directed to do so.
- Try to move around and be as physically active as you can.

Diarrhea

Cancer treatments and medicines can cause your bowels to move much more often and become loose. Uncontrolled diarrhea can lead to fluid loss (dehydration), weight loss, poor appetite, and weakness.

What to do

- Consume plenty of mild, clear, non-carbonated fluids during the day like water, apple juice, clear broth, popsicles, sports drinks, and gelatin.
- Eat small, frequent meals and snacks during the day.
- Avoid high-fat foods, like fried or greasy food, because they can make diarrhea worse.
- Avoid high-fiber foods, which might make diarrhea worse. These include nuts, seeds, whole grains, legumes (beans and peas), dried fruits, and raw fruits and vegetables.
- Avoid milk or milk products if they seem to make the diarrhea worse. Yogurt and buttermilk are OK.
- Avoid drinks and foods that cause gas, like carbonated drinks, gas-forming vegetables, and chewing gum.
- Drink and eat high-sodium (salt) foods like broths, soups, sports drinks, crackers, and pretzels.
- Drink and eat high-potassium foods like fruit juices and nectars, sports drinks, potatoes with the skin, and bananas.
- Drink at least 1 cup of fluid after each loose bowel movement.

- As diarrhea improves, try eating small amounts of foods that are easy to digest, such as rice, bananas, applesauce, yogurt, mashed potatoes, instant oatmeal, low-fat cottage cheese, and dry toast.
- Avoid pastries, candies, rich desserts, jellies, and preserves.
- Don't drink alcohol or use tobacco.
- Don't chew sugar-free gum or eat candies and desserts made with sugar alcohol (i.e., sorbitol, mannitol, or xylitol).
- Ask your cancer care team or dietitian about other foods or drinks you should consume or avoid.
- Call your cancer care team if diarrhea continues or increases, or if your stools have an unusual odor or color.

Mouth dryness or thick saliva

Dry mouth happens when there is not enough saliva or saliva becomes very thick. This can be a side effect of radiation therapy to the head and neck areas, some types of chemotherapy, certain other medicines, and dehydration.

A dry mouth can increase your risk of cavities and mouth infection. If you smoke, chew tobacco, or drink alcohol, the dryness can be worse. It can also make it harder to eat or drink.

What to do

- Drink plenty of fluids throughout the day. (Drinking lots of fluids can help make mucus less thick.)
- Take small bites, and chew your food well.

- Sip fluids with meals and snacks to moisten foods and help with swallowing.
- Moisten foods with broth, soup, sauces, gravy, yogurt, or creams.
- Suck on ice chips or sugarless candy or chew sugarless gum to stimulate saliva. Citrus, cinnamon, and mint flavors often work well.
- Keep cold water nearby for frequent sips between meals and mouth rinses.
- Prepare a simple homemade mouth rinse to help keep your mouth moist, clean, and tasting better. Each day mix one teaspoon of baking soda and one teaspoon of salt in four cups of water (one quart). Rinse your mouth four to six times each day with this solution.
- Spray mouth often using artificial saliva, which is sold in drugstores.
- Use petroleum jelly, cocoa butter, or a mild lip balm to keep lips moist.
- Avoid drinking alcohol or using tobacco.
- Avoid hot, spicy, or acidic foods.
- Avoid chewy candies, tough meats, pretzels and chips, and hard, raw fruits or vegetables.
- Avoid store-bought mouthwashes containing alcohol.
- Avoid alcoholic and acidic drinks, and tobacco.

- Nutritional supplements, like prepared liquid meal replacements, may be helpful. If you can't get enough calories and nutrition through solid foods, you may need to use liquid supplements for some time. Talk to your cancer care team about this.
- Ask your cancer care team or dietitian about other foods or drinks you should consume or avoid.

Mouth sores

Mouth sores are areas that might look like little cuts or ulcers in the mouth and are caused by certain kinds of cancer treatment.

What to do

- Talk to your cancer care team about a plan for mouth care that is right for you. Ask about other medicines to help relieve pain.
- Rinse your mouth regularly with a homemade mouth rinse. Each day mix one teaspoon of baking soda and one teaspoon of salt in four cups of water (one quart). This solution helps prevent oral infections and helps your mouth feel better. Gargle with the mixture to relieve a sore throat, but don't swallow it.
- Eat soft, bland foods like creamed soup, cooked cereal, macaroni and cheese, yogurt, and pudding. Avoid raw vegetables and fruits, and other hard, dry, or crunchy foods, such as chips or pretzels.
- Puree or liquefy foods in a blender to make them easier to swallow.
- Eat foods cold or lukewarm, rather than hot, to reduce mouth irritation.

- Drink plenty of fluids each day, if your cancer care team approves.
- Drink through a straw to bypass mouth sores.
- Eat high-protein, high-calorie foods to speed healing.
- Avoid alcohol, carbonated beverages, and tobacco.
- Avoid very salty, spicy, or sugary foods.
- Avoid acidic fruits and juices, such as tomatoes, oranges, grapefruit, limes, or lemons.
- Your doctor can prescribe a "swish and swallow" mouthwash with a numbing agent if needed.
- Ask your cancer care team or dietitian about other foods or drinks you should consume or avoid.

Dental and gum issues

Changes to your teeth and gums can occur as a result of cancer treatments to your oral cavity or because of different medicines. Sometimes losing your appetite and not eating regularly may cause you to not keep your mouth as clean or your teeth brushed and flossed.

What to do to keep your teeth and gums healthy

- Be sure to see your dentist for a check-up and cleaning before starting cancer treatment.
- Remember to brush and floss your teeth regularly. Using a mouth rinse may also help keep your mouth cleaner.

- Let your cancer care team know if your mouth becomes sore or if you notice any white coating on your tongue or the roof of your mouth. This can be a sign of infection.

Nausea and vomiting

Nausea is having a sick or uncomfortable feeling in the back of your throat and stomach, and can sometimes lead to vomiting. Cancer, cancer treatments, and other problems can cause nausea and vomiting.

What to do

- Eat the foods you like and those that sound good to you.
- Eat frequent, small meals and snacks throughout the day. Snack ideas include smoothies, trail mix, and fruit.
- Do not skip meals or snacks. If your stomach is empty, your nausea might be worse.
- On treatment days, eat a small meal or snack before treatment.
- Try to avoid eating your favorite foods when you have nausea. If you eat foods you like when you are nauseated, you might find them unappealing when treatment is over because you associate them with feeling sick.
- Sip on fluids slowly throughout the day. You may find it easier to tolerate cold and clear fluids. (Clear fluids are those you can see through, such as ginger ale, apple juice, broth, tea, etc.)
- Also try popsicles or gelatin. Suck on hard candy with pleasant smells, such as lemon drops or mints, to help get rid of bad tastes. (Don't eat tart candies if you have mouth sores.)

- Eat bland foods, such as dry toast and crackers.
- Eat food cold or at room temperature to decrease its smell and taste.
- Avoid fatty, fried, spicy, or very sweet foods.
- Try small amounts of foods high in calories that are easy to eat (such as pudding, ice cream, sherbets, yogurt, and milkshakes) several times a day.
- Use butter, oils, syrups, sauces, and milk in foods to increase calories.
- Tart or sour foods may be easier to keep down (unless you have mouth sores).
- Try to rest quietly while sitting upright for at least an hour after each meal.
- Distract yourself with soft music, a favorite TV program, or the company of others.
- Tell your cancer team about the nausea, because there are many medicines that can help it.
- Take your anti-nausea medicine at the first signs of nausea to help prevent vomiting.
- While waiting for your nausea medicine to work, relax and take slow, deep breaths.
- Try some non-drug treatments for nausea and vomiting.
- Ask your cancer care team or dietitian about other foods or drinks you should consume or avoid.
- Contact your cancer care team if you are not able to eat or drink because of nausea and vomiting.

Swallowing problems

Cancer and its treatments can sometimes have effects that cause trouble with swallowing.

What to do

- Eat small, frequent meals and snacks of bland foods that are soft and smooth but high in calories and protein (such as cream-based soups, pudding, ice cream, yogurt, and milkshakes).
- Take small bites, and swallow each bite completely before taking another.
- Use a straw for fluids and soft foods.
- Try thicker fluids (such as fruit that has been pureed in the blender or fluids with added thickeners), because they're easier to swallow than thin liquids.
- Mash or puree foods (such as meats, cereals, and fresh fruits) so that they're as soft as baby food. You might need to add liquids to dry foods before blending.
- Refrigerate food (the cold helps numb pain), or serve cool or lukewarm. If cold foods cause pain, try them at room temperature.
- Try crushed ice and fluids at meals.
- Crush pills or tablets and mix in juice, applesauce, jelly, or pudding. (Check with your doctor or pharmacist first, because some pills can be unsafe or no longer effective if crushed or broken. Others may react badly with certain foods and some should be taken on an empty stomach.)

- Avoid alcohol and hot, spicy foods or liquids.
- Avoid acidic foods, such as citrus fruits and drinks and fizzy soft drinks.
- Avoid hard, dry foods such as crackers, pretzels, nuts, and chips.
- Sit upright to eat and drink, and stay that way for several minutes after meals.
- If mouth pain is a problem, ask your doctor about using a numbing gel or pain reliever.
- If you gag, cough, or choke when swallowing, ask about seeing a speech-language pathologist or swallowing therapist. These are health care professionals who can teach you how to swallow safely and how to decrease coughing and choking when you eat and drink.
- Try thickening products like gelatin, tapioca, flour, cornstarch, and baby rice cereal.
- Ask your cancer care team or dietitian about other foods or drinks you should consume or avoid.

Taste and smell changes

Cancer and its treatments can change your senses of taste and smell. These changes can affect your appetite and are often described as a bitter or metallic taste, food tasting too salty or sweet, or food not having much taste. If you're having these problems, try foods, marinades, spices, drinks, and ways of preparing foods that are different from those you usually use.

What to do

- Try using plastic forks, spoons, and knives, and glass cups and plates.
- Try sugar-free lemon drops, gum, or mints.
- Season foods with tart flavors like lemon wedges, lemonade, citrus fruits, vinegar, and pickled foods. (If you have a sore mouth or throat, do not do this.)
- Rinse your mouth with a baking soda, salt, and water mouthwash before eating to help foods taste better. (Mix 1 teaspoon salt and 1 teaspoon baking soda in 1 quart water. Shake well before swishing and spitting.)
- If red meats taste strange, try other protein-rich foods like chicken, fish, eggs, or cheese.
- Keep your mouth clean and brush your teeth to help ease bad tastes. Be sure to replace your toothbrush regularly.
- Serve foods cold or at room temperature. This can decrease the foods' tastes and smells, making them easier to tolerate.
- Freeze fruits like cantaloupe, grapes, oranges, and watermelon, and eat them as frozen treats.
- Eat fresh vegetables. They may be more appealing than canned or frozen ones.
- Try marinating meats to make them tender.
- Blend fresh fruits into shakes, ice cream, or yogurt.

- To reduce smells, cover beverages and drink through a straw; choose foods that don't need to be cooked; and avoid eating in rooms that are stuffy or too warm.
- Ask your cancer care team or dietitian about other foods or drinks you should consume or avoid.

Weight changes

Weight gain or weight loss is common during cancer treatment.

What to do (If you want to try to stop losing weight)

- Be sure to drink enough water and other fluids. Drink fluids between meals not during, so you won't fill up.
- Choose meals and snacks that are high in calories and protein, such as nuts, trail mix, dried fruit, granola, peanut butter, hard-boiled eggs, or cheese.
- Consume smoothies, milkshakes, and nutritional supplements or bars to put more calories and protein in your diet.
- Eat your favorite food any time of the day: Eat breakfast foods for dinner, dinner foods for lunch, etc.
- Try adding high-calorie foods, such as whipped cream, sour cream, cream cheese, butter, or gravy, to what you eat to avoid further weight loss.
- Ask your cancer care team or dietitian about other foods or drinks you should consume.

What to do (If you want to try to stop gaining weight)

- Choose healthier, lower-calorie foods.
- Cut back on sugar-sweetened beverages.
- Limit your salt intake.
- Limit food portions especially with high-calorie foods.
- Read food labels to become more aware of portion sizes and calories. Be aware that “low-fat” or “non-fat” doesn’t always mean “low-calorie.”
- Try to walk daily if you can and if it’s OK with your doctor. Talk with your cancer care team about a referral to a physical therapist. They can help you safely increase your physical activity or help you find an exercise program.
- Ask your cancer care team or dietitian about other foods or drinks you should consume or avoid.

Dehydration

Dehydration occurs when more fluids and water leave the body than are taken in.

What to do

- Drink fluids. Sometimes iced fluids are easier.
- Remember that food contains fluid. Try to eat fruits, vegetables, soups, gelatins, popsicles, and other moist foods.
- Fill a small cooler with juice boxes, bottled water, or other drinks and keep it next to you, if it’s tiring to get up.
- Suck ice chips to relieve dry mouth if you can’t drink enough fluids.

For people with weakened immune systems

Cancer and its treatment can weaken your body’s immune system by affecting the blood cells that protect the body against disease and germs. As a result, your body can’t fight infection as well as a healthy person’s body can. A weak immune system also puts you at increased risk for food-borne illness.

Ask your cancer care team or dietitian for tips, and ideas about foods or drinks you should consume or avoid. Here are some tips on how to help protect yourself:

Handling food

- 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 warmer than 140° F and cold foods 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.
- Rinse leaves of leafy vegetables one at a time under running water.
- Use different utensils for stirring foods and tasting them while cooking. Do not taste the food (or let others taste it) with any utensil that will be put back into the food.
- 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.
- 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.

Grocery shopping

- Do not use out-of-date, 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 preprepared deli foods. In the bakery, avoid unrefrigerated desserts and pastries that contain cream or custard.
- 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 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 fast-food 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, potlucks, and sidewalk vendors.
- Ask if fruit juices are pasteurized. 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.

After treatment

Most eating-related side effects of cancer treatments go away after treatment ends. Sometimes side effects like poor appetite, dry mouth, change in taste or smell, trouble swallowing, or weight changes last for some time. If this happens to you, talk to your cancer care team and work out a plan to deal with the problem.

Tips for healthy eating after cancer

- Check with your cancer care team for any food or diet restrictions.
- Ask your dietitian to help you create a nutritious, balanced eating plan that can help you deal with any weight changes you might have experienced during cancer treatment.
- Follow a healthy eating pattern that includes foods high in nutrients, a variety of colorful fruits and vegetables, and whole grains.
- Limit or avoid red and processed meats, sugary drinks, and highly processed foods.
- It is best not to drink alcohol. If you do drink, women should have no more than 1 drink a day; men should have only 2.



Nutrition is an important part of cancer treatment. Eating the right kinds of foods before, during, and after treatment can help you feel better and stay stronger. The American Cancer Society shares this information to help you and your loved ones cope with treatment side effects that might affect how well you can eat.

For cancer information, day-to-day help, and support, visit the American Cancer Society website at **cancer.org** or call us at **1-800-227-2345**. We're here when you need us.



cancer.org | 1.800.227.2345



bbb.org/charity

©2022, American Cancer Society, Inc.
No. 941000-Rev. 6/22
Models used for illustrative purposes only.