

# Food and Nutrition Facts

*No. 24 in a series providing the latest information for patients, caregivers and healthcare professionals*

## **Good Nutrition for Everyone**

Eating well is important for everyone. The types and amounts of foods that we eat affect our energy levels, our moods and how we feel about ourselves.

A healthy lifestyle plays a key overall role in keeping the body strong, supporting the immune system (the cells and proteins that defend the body against infection) and reducing risk for some diseases, such as certain kinds of heart disease and some types of cancer.

Many nutrition professionals agree that a good diet for everyone, including cancer survivors, is a varied diet of nutrient-rich foods, such as a balance of

- Fruits and vegetables
- Whole grains
- Low-fat protein foods, such as fish, lean meats and poultry.

Many people who are motivated to eat well for good health want to know about “phytonutrients,” also called “phytochemicals”—which are certain natural compounds found in fruits, vegetables, whole grains and other plant-based foods.

Phytonutrients give plants their rich color, distinctive taste and smell. There are thousands of phytonutrients that may provide a number of health benefits. These compounds work together as a team and provide more protection when eaten as whole foods, rather than supplements.

You can increase your intake of phytonutrients by eating a variety of plant-based foods including fruits, vegetables, and whole grains. Phytonutrients are also in spices and tea.

Here are some tips for eating fruits and vegetables:

- Aim for 5 to 10 servings of fruits and vegetables each day (a serving is half a cup for most fruits and veggies, one cup for leafy greens, melons and berries).
- Include one or more servings of cruciferous vegetables in your diet almost every day. Cruciferous vegetables include broccoli, cauliflower, cabbage, Brussels sprouts, kale, watercress and radishes. A serving is one cup for leafy greens such as kale and half a cup of the other vegetables such as cauliflower.
- These foods are also safe to consume during and after cancer treatment. However, some patients may be advised to have only cooked fruits or vegetables for a period of time, as described in *The Neutropenic Diet* on page 7.

One reliable source of information about healthy food and nutrition for everyone is the American Dietetic Association.

### **American Dietetic Association (ADA)**

Nutrition Information Hotline (800) 366-1655, 9 AM to 4 PM CT, Monday-Friday.

You can call the ADA's Nutrition Information Hotline for a referral to a registered dietitian in your area for individual nutrition counseling. You may want to find out if this is covered by your healthcare plan before you make an appointment.

Good nutrition should be part of a healthy lifestyle that also includes

- Maintaining a healthy weight
- Drinking water or other noncaffeinated beverages
- Daily activity, such as walking
- Relaxing (managing stress)
- Getting enough sleep
- Not using tobacco or abusing drugs and alcohol.

### **Nutrition During and After Cancer Treatment**

Eating well helps people living with cancer to feel better and stay stronger during and after cancer treatment. Patients who eat well and maintain their weight often tolerate treatment side effects better. Good nutrition also helps the body to replace blood cells and tissues that are broken down as a result of treatment.

There is no diet, food or supplement known to prevent, cause, treat or cure leukemia, lymphoma, myeloma or myelodysplastic syndromes. However, there are several food- and nutrition-related actions that can make a difference in your health and how you feel.

## Food Safety

Handling food safely is important for everyone. People who are being treated for cancer have weakened immune systems. This puts them at increased risk for food-borne illness.

These are some ways to help keep food safe for everyone:

- Keep your hands, counters, dishes, cutting boards and utensils clean.
- Change sponges and dishtowels often.
- Wash fruits and vegetables thoroughly.
- Use separate dishes, cutting boards and utensils for preparing raw meat, fish or poultry.
- Thaw frozen items in the microwave or refrigerator, not on the kitchen counter.
- Use a food thermometer to make sure that meat is fully cooked.
- Read the expiration dates on food products and look for signs of food spoilage. If in doubt, throw it out.

More information and fun ideas for children about food safety are available from the Partnership for Food Safety Education (PFSE). The PFSE is an initiative to educate the public about safe food-handling practices to keep food free of bacterial contamination. The Web site of the PFSE is a resource for food-safety information.

## Partnership for Food Safety Education (PFSE)

(202) 220-0651

[www.fightbac.org](http://www.fightbac.org)

## Cancer Drug Therapy and Nutrition

Some of the drugs that are used to treat cancer can have specific food interactions that members of your treatment team will tell you about.

When you begin a new treatment or start using a new drug, it is a good idea to tell your doctor about any food allergies you may have and to ask:

- Will I have any special nutritional needs while taking this medication?
- Do I need to take this medication with food? Without food?
- Are there any known food-drug interactions of this treatment?
- Are there any known vitamin- or supplement-drug interactions of this treatment?
- Are there any foods or beverages I cannot have while in treatment?
- Do I need to drink extra water or other fluids while in treatment or while taking this medication?
- Can I drink alcoholic beverages, including beer and wine, while in treatment or while taking this medication?
- What if I vomit immediately after taking my medication?

For other questions to ask your doctor about treatment and side effects see the Society's booklet *Understanding Drug Therapy and Managing Side Effects*.

### **Your Appetite**

People living with cancer may have different nutrition goals and challenges, depending on their

- Age
- Type of disease or treatment
- Stage of disease or treatment
- Other medical conditions such as high blood pressure, heart disease, diabetes or depression.

Your disease and treatment may increase your body's need for calories and protein. Chemotherapy, certain other drug therapies and radiation therapy also create a need for more calories and protein each day. At the same time, the side effects of your treatment may make it a challenge for you to take in enough calories and protein.

Eating enough can be a challenge for patients both during and after treatment. For some people, certain side effects of the disease or treatment affect

- Appetite, taste and smell
- Chewing or swallowing
- The ability to absorb the nutrients from food.

Side effects can often be managed with medications or other therapies. Managing side effects is important to help patients get the nutrients they need to

- Tolerate and recover from treatment
- Prevent weight loss
- Maintain general health.

Whenever possible and in accordance with medical advice, eat a variety of foods including fruits, vegetables and whole grains on a daily basis.

Eating enough food, including protein-rich food, is important for

- Healing, including growing new blood cells
- Fighting infection
- Providing energy and preventing muscle loss.

Some good sources of protein-rich foods are

- Lean meats
- Fish
- Beans and tofu (bean curd)
- Dairy products (eggs, milk, yogurt, cheese).

Some nutrition tips to help you get enough calories and protein:

- Eat frequent, small meals or snacks, perhaps four to six times a day.
- Keep prepared snacks or small meals on hand.
- Have liquids such as juices, soups or shakes if eating solid foods is a problem.
- For extra calories, blend cooked foods or soups with high-calorie liquids such as gravy, milk, cream or broth instead of water.
- Sip water and other clear liquids such as broth, ginger ale, or lemonade frequently to prevent dehydration.
- Choose soft foods or foods that can be cooked until tender.
- Cut foods into bite-sized pieces or grind or blend them so that less chewing is needed.
- Bring snacks when away from home.
- Try new foods and recipes to accommodate changes in taste or smell.
- When possible, take a walk before meals to improve appetite.
- Eat with friends or family members when possible. When eating alone, listen to the radio or watch TV.
- Accept help with food shopping and meal preparation.
- Many areas offer cooking classes for people with cancer. If this is of interest, your local Society chapter may know of classes that you can attend.

### **Weight Gain**

For some patients, weight gain may occur as a result of increased appetite or fluid retention associated with certain drug therapies. Weight-loss diets are not recommended without medical advice. Patients may be advised to switch to a low-fat diet (less butter, margarine, oil; lean meats only) or a low-sodium diet. The advice of a nutritionist or dietitian may be helpful. If needed, ask your oncologist for a referral.

## Dental Health

Nutrition and dental health are interrelated—and dental care is an important part of overall cancer care. Problems with the teeth, gums or mouth can interfere with eating well. Likewise, poor nutrition can lead to dental problems. Visit the dentist before treatment begins if possible, and

- Maintain good dental and oral hygiene to help prevent gum disease and infection, including the use of prescribed mouthwash.
- Inspect your mouth daily to detect any problems.
- Speak with the oncologist and dentist as soon as possible if you have any mouth, tooth or jaw pain—or any other symptom of possible dental problems.
- If needed, your oncologist may refer you to a dental oncologist (a dentist who is specially trained to treat people with cancer).
- Seek the advice of your healthcare team for oral hygiene tips and dietary suggestions to reduce or relieve discomfort.

Patients should update their medical history records with their dentists to include cancer diagnosis and treatments, and provide their dentist and their oncologist with each other's name and telephone number for consultation. Patients may be advised to have any necessary major dental procedures completed prior to beginning therapy if possible.

## Drink Enough Water

There are many reasons patients need to get enough water.

- Certain cancer therapies, including chemotherapy, other drug therapies and radiation therapy can cause patients to become dehydrated.
- Some side effects of treatment, such as diarrhea or vomiting, can also increase the need for more fluids.
- Getting enough liquids may help specifically with fatigue or constipation.

Intravenous (IV) fluids are given during treatment for some chemotherapies. If you are taking oral medications, with your treatment team's guidance, drink plenty of water or other noncaffeinated beverages every day. It is best to drink water and other approved liquids throughout the day. Sipping even small amounts of water at regular intervals will help if that is all you can manage.

It is possible to drink too much water. Guidelines for the amount of water to have each day vary, so check with your treatment team and follow medical guidance. Your treatment team may recommend liquids, such as broths or sports drinks—these can restore the body's electrolyte balance. The main electrolytes in the body are sodium, potassium, calcium, magnesium, chloride, phosphates, and bicarbonate. Electrolytes have many important functions in the body.

In general, patients should limit liquids such as caffeinated drinks and alcohol that may increase electrolyte depletion. If you drink alcohol or caffeinated beverages, your treatment team may advise you to have a noncaffeinated beverage for every caffeinated beverage or serving of alcohol you drink.

### **The Neutropenic Diet**

Certain individuals with lower-than-normal neutrophil counts need a special diet called a “neutropenic diet” to help protect them from bacteria and other harmful organisms found in some food and drinks.

“Neutropenia” is the term for a decrease below normal in the concentration of neutrophils. You may be told to follow a neutropenic diet if your neutrophil count falls below a certain number. This diet is followed until your counts improve and is intended to decrease your exposure to bacteria. Every cancer center has different rules regarding the neutropenic diet. Ask your treatment team for any special instructions. A patient who has had a stem cell transplant (bone marrow transplant) may have to follow stricter diet rules for a period of time than a patient who was treated with chemotherapy and/or radiation therapy without a transplant.

The basic guidelines for a neutropenic diet are:

- Avoid all uncooked vegetables and most uncooked fruits. Cooked vegetables and canned fruits and juices are fine. You may eat fruit that you can peel a thick skin off, such as a banana or an orange.
- Avoid raw or rare-cooked meat, fish and eggs. Meat should be cooked to the well done stage. All eggs should be thoroughly cooked (no runny yolks).
- Avoid salad bars and deli counters. Buy vacuum-packed lunch meats rather than freshly sliced meats.
- Eat or drink only pasteurized milk, yogurt, cheese or other dairy products.
- Avoid soft mold-ripened and blue-veined cheeses including Brie, Camembert, Roquefort, Stilton, Gorgonzola and Blue.
- At home, you may use tap water or bottled water. Avoid well water or boil it for one minute before using.

### **Dietitians and Nutritionists**

You may want to ask your doctor to refer you to a dietitian or nutritionist for specific nutrition advice and guidance. The terms “nutritionist” and “dietitian” are often used interchangeably. Dietitians may refer to themselves as nutritionists, but not all nutritionists are dietitians. The registered dietitian (RD) credential signifies that a clinician has completed academic and accredited internship experience, has successfully passed the national credentialing exam, and maintains ongoing continuing education and professional development in accordance with the Commission on Dietetic Registration.

A dietitian or nutritionist can

- Develop an eating plan for you that meets your needs
- Help you manage changes in appetite and weight
- Help you deal with side effects of treatment
- Advise you about foods, vitamins, herbs and supplements
- Develop a personalized cancer survivorship wellness plan.

Patients who cannot eat and drink enough for extended periods of time may be referred by their oncologists to a dietitian for help with prescribed supplements that are high in calories and protein with tube feedings until they can resume normal eating. Patients who have had a stem cell transplant (bone marrow transplant) generally do not receive nutrition through a feeding tube. These patients receive their nutrition through an IV. These forms of therapy may be used to keep the patient as healthy and strong as possible during treatment.

### **Evaluating Nutrition Information**

Nutrition and cancer research is still in its early stages. It may be hard to sort out dependable, science-based advice from misinformation and myth.

If you are interested in understanding more about nutrition news that you have seen on the Internet, read about in a magazine or newspaper, or heard on the news or from a friend or relative, it is important to speak to a member of your oncology team. Trying a supplement or an herb on your own could interfere with your cancer treatment. For example:

- Omega-3 fatty acid supplements may increase the blood-thinning effects of aspirin or warfarin. These supplements should only be taken together with blood thinners under the guidance and supervision of your doctor.
- St. John's wort, an herbal product used to treat depression, reduces the effectiveness of imatinib (a drug used to treat chronic myelogenous leukemia and Philadelphia-positive acute lymphocytic leukemia). Patients who are experiencing depression should talk to their doctors about safe treatment options and be sure to tell their doctors about any medications or supplements they are taking.



## Contact Us

### **The Leukemia & Lymphoma Society**

1311 Mamaroneck Ave.

White Plains, NY 10605

or call the Information Resource Center at (800) 955-4572.

## Resources

### **American Dietetic Association (ADA)**

Nutrition Information Hotline

(800) 366-1655

[www.eatright.org](http://www.eatright.org)

This site provides reliable nutrition information; you can also call for a referral to a registered dietitian in your area.

### **Cancer Nutrition Info**

[www.caring4cancer.com](http://www.caring4cancer.com)

This site provides up-to-date, comprehensive and science-based information about nutrition and cancer.

### **Food and Nutrition Information Center (FNIC)**

(301) 504-5414

[www.fnic.nal.usda.gov](http://www.fnic.nal.usda.gov)

The Food and Nutrition Information Center, part of the U.S. Department of Agriculture, provides information on dietary supplements, food safety and the nutritional composition of foods.

### **MEDLINEplus**

[www.nlm.nih.gov/medlineplus](http://www.nlm.nih.gov/medlineplus)

MEDLINEplus provides links to current healthcare information. It is compiled by the National Library of Medicine at the National Institutes of Health (NIH).

### **Nutrition and Cooking Resources for People Living With Cancer**

(703) 519-2927 or (888) 651-3038

[www.plwc.org](http://www.plwc.org)

People Living With Cancer provides a list of nutrition and cooking resources to turn to when side effects of cancer treatments interfere with a patient's ability to eat well.

**NUTRITION.GOV**

(800) 843-8114 or (202) 328-7744

<http://nutrition.gov>

This Web site provides information about healthy eating, physical activity and food safety.

**Partnership for Food Safety Education (PFSE)**

(202) 220-0651

[www.fightbac.org](http://www.fightbac.org)

The Partnership for Food Safety Education is an initiative to educate the public about safe food handling practices. The Web site is a resource for food-safety information.

**PubMed**

[www.pubmed.gov](http://www.pubmed.gov)

PubMed is a service of the National Library of Medicine that enables you to search for science-based information. It includes more than 17 million citations from MEDLINE and other life science journals for biomedical articles.

**Quackwatch, Inc.**

[www.quackwatch.org](http://www.quackwatch.org)

Quackwatch is a nonprofit corporation whose purpose is to combat health-related frauds, myths, fads, fallacies and misconduct.

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