

Staying Healthy through Nutrition and Physical Activity

Good nutrition and regular exercise offer many benefits to childhood cancer survivors. These include:

- Promoting healing of tissues and organs affected by cancer and its treatment
- Building strength and endurance
- Reducing the risk of certain types of adult cancers and other diseases such as diabetes, high blood pressure, and obesity
- Decreasing stress and providing a feeling of well-being

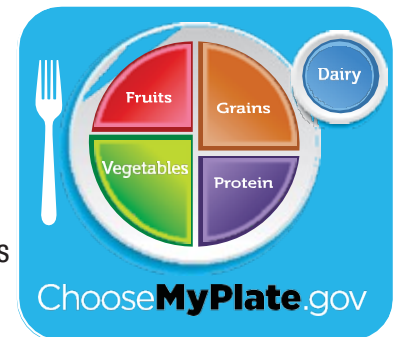
Impact of Childhood Cancer on Nutrition and Physical Activity

The effects of childhood cancer on nutrition and physical activity will be different for each survivor. Cancer affects nutrition in several ways. Some survivors may have difficulty gaining weight, while others may have problems with gaining too much weight. Physical activity is an important factor in maintaining a healthy body weight. There are many factors that can influence a survivor's ability to be physically active; however, childhood cancer and its treatment should not be used as an excuse for not eating a healthy diet or staying physically active. Many survivors, just like many people who have never experienced cancer, have poor health habits. Now is a good time to begin making healthy choices about what you eat and stay active. These choices can have a positive effect on your health for many years to come.

Developing a Healthy Nutrition Plan

Suggestions for good nutrition include:

- Choosing a variety of foods from all the food groups. Use the interactive customized guide at www.choosemyplate.gov to help develop a well-balanced diet and activity plan.
- Eating five or more servings a day of fruits and vegetables, including citrus fruits and dark-green and deep-yellow vegetables.
- Limiting juice to 4 ounces of 100% fruit or vegetable juice per day.
- Eating plenty of high-fiber foods, such as whole grain breads, rice, pasta, and cereals.
- Limiting refined carbohydrates, including pastries, sweetened cereals, soft drinks, and sugars.
- Decreasing the amount of fat in your meals by baking, broiling or boiling foods.
- Limiting intake of red meat and eating fish, poultry, or beans instead. When eating meat, select leaner and smaller portions.
- Limiting fried and high-fat foods, such as fries, snack chips, cheeseburgers, and pizza.
- Choosing low-fat milk and dairy products.
- Avoiding salt-cured, smoked, charbroiled, and pickled foods.
- For adults, limiting alcoholic drinks to less than two a day for men and one for women.



If you need to lose or gain weight, consult with your health care team and/or a nutritionist to develop a nutrition plan. Herbal or dietary supplements should be discussed with your team. There are several questions you should ask yourself to make sure your nutrition plan will be effective.

- Do you have a realistic, achievable weight goal?

- Does your plan include foods that you will enjoy eating for the rest of your life, not just a few weeks or months?
- Does your plan include a variety of foods?
- Are foods on your plan easily available at your supermarket?
- Does your plan fit into your lifestyle, daily schedule and budget?
- Does your plan include lifestyle changes that will help you maintain your weight change?

Developing a Healthy Exercise Plan

Check with your healthcare team before starting an exercise plan or taking part in new sports and recreational activities. Your healthcare provider can make you aware of the activities that you can safely take part in and those you should avoid.

When choosing an exercise plan, ask yourself these questions:

- Do you have reasonable goals based on your present strength and endurance?
- Is the activity safe for you to perform?
- Does the plan fit into your lifestyle and schedule?
- Does the activity require special equipment or protective gear and will your budget cover the expense?
- Do you need to make changes in the sport or activity based on a special need?
- Do you enjoy doing the sport or activity?

Here are a few helpful suggestions when implementing your exercise plan:

- Start out slow. Don't try activities that are too strenuous or put you at risk for muscle strain.
- Begin your exercise plan with a warm-up program and end with a cool-down activity, such as stretching and slow easy movements.
- Use correct posture when exercising.
- Exercise until you are tired, but not in pain.
- Identify the muscles you want to strengthen and choose exercises that work on those muscles.
- Alternate exercises to work different muscles and different parts of your body.
- To avoid injury, use the right equipment and shoes. Avoid running, jogging, or aerobic dancing on hard surfaces such as asphalt or concrete.

The American Cancer Society recommends having a physically active lifestyle. Adults should get at least 150 minutes of moderate physical activity (brisk walking, bicycling, vacuuming, gardening), or 75 minutes of vigorous physical activity (running, aerobics, heavy yard work), or a combination of these each week, preferably spread throughout the week. Children and adolescents should engage in at least 60 minutes each day of moderate to vigorous physical activity each day (running, aerobics, heavy yard work), with vigorous activity at least 3 days each week. Here are some practical suggestions to try to work physical activity into your daily schedule.

- Park a good distance from your place of work and walk the extra distance each day.
- Set aside 30 minutes a day to take a brisk walk.
- Take the stairs instead of the elevator.

- If you have a sit-down job, get up and stretch your muscles every hour and take a walk during your lunch or break.
- Ride a bike to work or for running errands.
- If you have a dog, take him/her on a brisk walk every day.
- Plant a garden, wash your car, mow the lawn, paint furniture, clean out the garage and catch up on all those chores you have been meaning to do—instead of watching TV or playing on the computer.
- Keep your body moving while watching TV or reading the newspaper on a stationary bike or treadmill.
- Plan active outings with family or friends.
- Exercise with a partner.
- Join a sports team.

Physical Activity for Survivors with Special Needs

Survivors who have special needs can take part in most activities, but the help of a physical or occupational therapist may be needed to adapt the activity for success. A social worker may be able to help find insurance coverage or other resources for special equipment. Specialized programs for individuals with special needs, organizations and other resources are often available through your healthcare center, in your local community, and at www.ncpad.org.

Adapted by Sharon A. Friedrich, RN, MS, CPNP, University of Wisconsin Hospital and Clinics, Madison, WI, from “Staying Physically Healthy, Play Safely, Play Well,” St. Jude Children’s Research Hospital, used with permission.

Reviewed by Linda Rivard, RN, BSN, CPON®; Christine S. Yun, MSN, PNP, CPON®; and Kayla L. Foster, MD, MPH.

Additional health information for childhood cancer survivors is available at www.survivorshipguidelines.org

Note: Throughout this *Health Links* series, the term “childhood cancer” is used to designate pediatric cancers that may occur during childhood, adolescence, or young adulthood. Health Links are designed to provide health information for survivors of pediatric cancer, regardless of whether the cancer occurred during childhood, adolescence, or young adulthood.

Disclaimer and Notice of Proprietary Rights

Introduction to Late Effects Guidelines and Health Links: *The Long-Term Follow-Up Guidelines for Survivors of Childhood, Adolescent, and Young Adult Cancers* and accompanying *Health Links* were developed by the Children’s Oncology Group as a collaborative effort of the Late Effects Committee and Nursing Discipline and are maintained and updated by the Children’s Oncology Group’s Long-Term Follow-Up Guidelines Core Committee and its associated Task Forces.

To cancer patients (if children, their parents or legal guardians): Please seek the advice of a physician or other qualified health provider with any questions you may have regarding a medical condition and do not rely on the Informational Content. The Children’s Oncology Group is a research organization and does not provide individualized medical care or treatment.

To physicians and other healthcare providers: The Informational Content is not intended to replace your independent clinical judgment, medical advice, or to exclude other legitimate criteria for screening, health counseling, or intervention for specific complications of childhood cancer treatment. Neither is the Informational Content intended to exclude other reasonable alternative follow-up procedures. The Informational Content is provided as a courtesy, but not intended as a sole source of guidance in the evaluation of childhood cancer survivors. The Children’s Oncology Group recognizes that specific patient care decisions are the prerogative of the patient, family, and healthcare provider.

No endorsement of any specific tests, products, or procedures is made by Informational Content, the Children’s Oncology Group, or affiliated party or member of the Children’s Oncology Group.

No Claim to Accuracy or Completeness: While the Children’s Oncology Group has made every attempt to assure that the Informational Content is accurate and complete as of the date of publication, no warranty or representation, express or implied, is made as to the accuracy, reliability, completeness, relevance, or timeliness of such Informational Content.

No Liability on Part of Children’s Oncology Group and Related Parties/Agreement to Indemnify and Hold Harmless the Children’s Oncology Group and Related Parties: No liability is assumed by the Children’s Oncology Group or any affiliated party or member thereof for damage resulting from the use, review, or access of the Informational Content. You agree to the following terms of indemnification: (i) “Indemnified Parties” include authors and contributors to the Informational Content, all officers, directors, representatives, employees, agents, and members of the Children’s Oncology Group and affiliated organizations; (ii) by using, reviewing, or accessing the Informational Content, you agree, at your own expense, to indemnify, defend and hold harmless Indemnified Parties from any and all losses, liabilities, or damages (including attorneys’ fees and costs) resulting from any and all claims, causes of action, suits, proceedings, or demands related to or arising out of use, review or access of the Informational Content.

Proprietary Rights: The Informational Content is subject to protection under the copyright law and other intellectual property law in the United States and worldwide. The Children’s Oncology Group retains exclusive copyright and other right, title, and interest to the Informational Content and claims all intellectual property rights available under law. You hereby agree to help the Children’s Oncology Group secure all copyright and intellectual property rights for the benefit of the Children’s Oncology Group by taking additional action at a later time, action which could include signing consents and legal documents and limiting dissemination or reproduction of Informational Content.