

Health promotion through diet and physical activity

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

- Healing tissues and organs damaged by cancer and its treatment
- Building strength and endurance
- Reducing the risk of certain types of cancers and other diseases
- Decreasing stress and providing a feeling of well-being

Impact of Cancer on Nutrition and Physical Activity

The effects of cancer on nutrition and physical activity will be different for each individual survivor. Nutrition can be affected in a number of ways. Some people may have aversions to certain foods due to tastes, smells, or sights associated with their prior therapy. Others may have developed intolerance to certain foods, such as milk products. People who have had radiation to the face or neck may have a lack of saliva that can cause foods to taste pasty and dry. Dental problems can cause problems with chewing food. People who have had radiation to the abdomen or who have chronic graft-versus-host disease after stem cell transplant may have trouble absorbing certain foods. Any of these problems can result in poor nutrition and trouble maintaining a healthy weight.

Other survivors may have problems with gaining too much weight. Treatments for cancer that can result in problems with excess weight gain include radiation to the brain, head, or total body. This is more likely to occur if the radiation was given in high doses, or if the person also received treatment with corticosteroids (prednisone or dexamethasone). Associated health problems that may result from radiation and contribute to weight gain include low levels of growth hormone or thyroid hormone. There are many factors that can influence a survivor's ability to perform physical exercise. Individuals who have had an amputation, bone graft or joint replacement surgery, high dosages of radiation to a bone, or joint damage as a result of treatment may have restrictions or limitations in their activities.

Heart or lung damage from cancer treatment may also limit the ability to be physically active. Nerve damage from cancer therapy can sometimes impair sensation and coordination. Individuals who have survived brain tumors often have problems with balance and coordination as a result of their tumor, surgery, or therapy.

Cancer and its treatment should not be used as an excuse for not eating a healthy diet or staying physically active. However, many survivors, like many people who have never experienced cancer, make lifestyle choices (such as what they eat and how they exercise) that are not always in their best interest. Now is a good time to begin making healthy

choices about diet and exercise. These choices can have a positive effect on your health for many years to come.

Developing a Healthy Nutrition Plan

Suggestions for a healthy diet include:

- Choose a variety of foods from all the food groups. Use the Food Guide Pyramid to help choose foods for a well-balanced meal plan.
- Eat at least 5 servings a day of fruits and vegetables, including citrus fruits and dark-green and deep-yellow vegetables.
- When drinking juice, choose 100% fruit or vegetable juice.
- Eat plenty of high-fiber foods, such as whole grain breads, rice, pasta and cereals. Avoid foods high in sugars or refined carbohydrates.
- Buy a new fruit, vegetable, low-fat food, or wholegrain product each time you shop for groceries.
- Decrease the amount of fat in your meals by baking or boiling foods.
- Limit intake of red meat and substitute fish, poultry or beans. When you eat meat, select leaner and smaller portions.
- Limit fried and high-fat foods, such as French fries, snack chips, cheeseburgers, and pizza
- Choose low-fat milk and dairy products.
- Avoid salt-cured, smoked, charbroiled and pickled foods.



If you need to lose weight, it is advisable to consult with your health care team and a nutritionist to develop a nutrition plan. Herbal or dietary supplements should be discussed to determine if they are truly healthy. 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 loss?

Developing a Healthy Physical Exercise Plan

Check with your healthcare team before starting a physical exercise plan or engaging in new sports and recreational activities. It is important to be aware of activities that you can participate in actively and those you should avoid.

When selecting 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 modifications 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 attempt 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
- Balance exercises between 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.
- Increase your workout by no more than 10 percent per week.

The National Cancer Institute recommends at least moderate intensity exercise at least 30 minutes per day on most days of the week. If you don't have the time for a 30-minute session all at once, you can break it up into three different sessions of 10 minutes each. The American Cancer Society recommends engaging in at least 60 minutes per day of moderate to vigorous physical activity at least 5 days per week. Here are some practical suggestions to try to incorporate physical activity in 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.

- Plant a garden, wash your car yourself, 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.
- Watch TV or read the newspaper while on a stationary bike or treadmill.
- Plan active family outings, instead of attending a movie.
- Exercise with a friend you enjoy spending time with.
- Join a sports team.

Physical Activity for Survivors with Special Needs

Survivors who have special needs can participate in most activities, but the assistance of a physical or occupational therapist may be necessary to help adapt the activity for success. A social worker may be able to assist with obtaining medical reimbursement or provide suggestions for obtaining funding for special equipment. Specialized programs for individuals with special needs, organizations and other resources are often available through your healthcare center or in your local community.

Works Cited

Adapted from Children's Oncology Group Long-Term Follow-Up Guidelines for Survivors of Childhood, Adolescent, and Young Adult Cancers
<http://www.survivorshipguidelines.org/>