



## **Nutrition and Physical Activity for Improving Breast Cancer Outcomes**

By Jennifer Koslo, MS, RD, CSSD, ACE-CPT

Full-time faculty, [Kaplan University School of Health Sciences](#)

Whether you are a newly diagnosed cancer patient, currently undergoing treatment, or a cancer survivor, the role that food choices and physical activity play in improving quality of life and survivorship cannot be emphasized enough. Cancer patients and survivors are often very motivated to seek information about proper [nutrition](#) and [physical activity](#) yet may find conflicting advice. This article provides information to common questions about nutrition and physical activity and is intended to assist cancer survivors and their families in making informed choices.

### **What role does weight play in cancer prevention, treatment, and recovery?**

People who are overweight or obese tend to have higher levels of insulin and estrogen circulating in their blood. These hormones are related to cell growth and are thought to influence cancer risk. For women diagnosed with breast cancer, weight loss may be one of the most important lifestyle changes that can be made. Maintaining a healthy weight during all phases of cancer treatment and recovery can be achieved by following a balanced diet. Be sure to keep in mind that “yo-yo” dieting (the repeated loss and gain of body weight) has been shown to decrease immunity, which may increase susceptibility to cancer.

The American Cancer Society (ACS) promotes guidelines similar to those outlined in MyPyramid.gov ([www.mypyramid.gov/](http://www.mypyramid.gov/)) and recommends the following:<sup>1</sup>

1. Eat five or more servings of fruits and vegetables a day
2. Choose whole grains and beans
3. Limit consumption of processed and red meat
4. Drink sufficient water
5. Limit sugar intake
6. Consume alcohol in moderation

In addition, be sure to choose a variety of bright and deeply colored fruits and vegetables since these foods are important sources of vitamins C, E, antioxidants, and phytochemicals, which may play a role in cancer prevention.

Dietary studies conducted in breast cancer patients have shown an increase in survivorship and decrease in recurrence when saturated trans fats are limited to less than 20 percent of total calories. It is particularly important to avoid trans fats which are found in partially hydrogenated vegetable oils. These harmful fats can be replaced with sources of good omega-3 fats such as those found in salmon, walnuts, and flax. Studies have also shown omega-3 fats to be beneficial to cancer survivors and may enhance some forms of treatment while alleviating some of the negative side effects.<sup>2</sup>

Soy-derived foods contain several phytochemicals with weak estrogen activity which has been found to protect against hormone-dependent cancers in animals. Because the research of this

activity in humans is limited, there are no harmful effects documented for breast cancer survivors in consuming moderate amounts (3 servings per day) of soy. However, higher doses may increase the progression for some forms of breast cancer, so it is recommended that breast cancer survivors avoid the high doses that are found in soy protein powders and isoflavones.<sup>1</sup>

**Quick Tip:** Using the “plate method,” consider  $\frac{3}{4}$  of your dinner plate to be of plant origin and  $\frac{1}{4}$  of your plate to be of animal origin or another protein source. Choose lean sources of meat or fish, or substitute beans. Be sure to also choose brightly colored fruits and vegetables and limit saturated and trans fats.

### **What role does physical activity play in cancer prevention, treatment, and recovery?**

Physical activity is important for maintaining good health in general as well as throughout cancer treatment. Inactivity has been shown to be a risk factor for the development of breast cancer and sedentary cancer patients could enter treatment with reduced stamina and endurance. In addition, exercise capacity during cancer treatment may be reduced as a result of adverse side effects on the cardiopulmonary, neurologic, and muscular systems.<sup>2</sup> While no clinical studies have assessed the effect of physical activity on cancer recurrence, studies have shown that regular physical activity can improve general quality of life by increasing self-esteem, decreasing fatigue, and reducing anxiety. Evidence suggests that exercise is feasible during all phases of cancer treatment with a temporary reduction in intensity during radiation and chemotherapy.<sup>1</sup>

**Quick Tips:** Increase your physical activity by: taking the stairs instead of the elevator; walking or biking to your destination; finding an exercise buddy to exercise; wearing a pedometer every day and increasing your daily steps; using a stationary bicycle or treadmill while watching TV.

While many forms of cancer have a genetic component, 30 to 40 percent of all cases can be prevented by nutrition and physical activity. <sup>1</sup> Maintaining a healthy weight by consistently making positive food choices and balancing intake with physical activity can assist in cancer prevention, treatment, and recovery.

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1. American Cancer Society, "[Nutrition and Physical Activity During and After Cancer Treatment: Answers to Common Questions](#)," (accessed September 2009)>

2. Doyle, C., et al., for the 2006 Nutrition, Physical Activity and Cancer Survivorship Advisory Committee, “Nutrition and Physical Activity During and After Cancer Treatment: An American Cancer Society Guide for Informed Choices,” *CA: A Cancer Journal for Clinicians*, 56: 323-53.



**Jennifer Koslo, MS, RD, CSSD**

**Jennifer Koslo** is a full-time faculty member with [Kaplan University's School of Health Sciences](#) and teaches courses such as Vitamins, Herbs, and Nutritional Supplements and **Contemporary Diet and Nutrition**. Ms. Koslo is a Registered Dietitian (RD) and one of the few Certified

Specialists in **Sports Dietetics** (CSSD) in the country. In addition to teaching online, Ms. Koslo teaches **wellness and weight loss** classes in the local community, and is a **sports nutrition** consultant on a private consultation basis.

Ms. Koslo received her Bachelor of Science in Biology from Juniata College, and earned a dual Master of Science in **Human Nutrition and Exercise Science** from Colorado State University. She received a Registered Dietitian certification from the American Dietetic Association and Colorado State University, and is currently working on her doctorate degree in education with an emphasis in instructional design for online learning.

In addition to serving in the US Peace Corps in Sierra Leone, West Africa, for 2-1/2 years, Ms. Koslo also worked as a cardiac rehabilitation dietitian and at the Arizona Department of Health Services as the chronic disease nutritionist. She is also an American Council on Exercise Certified Personal Trainer.