

Healthy Eating, Active Living, and Cancer: The Scientific Link



For the majority of Americans who do not use tobacco products, weight management, good nutrition, and physical activity are the greatest modifiable determinants of cancer risk.¹ Scientific evidence suggests that approximately one fifth of the cancer cases expected to occur in the United States this year are due to excess weight, poor nutrition, and physical inactivity.²

Currently, 37 percent of adults and 17 percent of youth (ages 2-19) are obese.³ Roughly 71 percent of adults are either overweight or obese.^{4,5} Adult obesity more than doubled between 1976-1980 and 1999-2000,⁶ but since then has increased only slightly among men.⁷ Between the early 1970s and the early 2000s, youth obesity more than tripled,⁸ but has largely leveled off. Although obesity rates are no longer increasing dramatically, they are still high, and existing levels of obesity are causing a significant burden of chronic disease. Large racial, ethnic, and geographic disparities in obesity rates exist across all age groups.^{9, 10}

Excess body weight is clearly associated with an increased risk of cancer development and recurrence, as well as decreased risk of survival,¹¹ for many cancers. Weight control reduces the risk of cancers of the female breast (postmenopausal),¹² colon and rectum,¹³ uterus,¹⁴ kidney,¹⁵ adenocarcinoma of the esophagus,¹⁶ pancreas,¹⁷ ovary,¹⁸ liver, gastric cardia, gall bladder,¹⁹ thyroid, meningioma, and multiple myeloma.²⁰

The reasons for the biological link between excess body weight and cancer are complex. The relationship is likely related to effects on immune function and inflammation, levels and metabolism of insulin and other hormones, factors related to cell growth, and proteins that make hormones more or less available.^{21, 22}

Physical activity may reduce the risk of 13 types of cancer. These include cancers of the esophagus, liver, lung, kidney, stomach, endometrium, colon, rectum, head and neck, bladder, and breast, and myeloid leukemia and myeloma.²³ Physical activity helps to reduce cancer risk through maintaining a healthy body weight, as well as through hormonal and metabolic effects. The American Cancer Society (ACS) and other experts recommend that adults engage in at least 150 minutes of moderate intensity or 75 minutes of vigorous intensity activity each week and that children and adolescents engage in at least 1 hour of moderate- or vigorous-intensity activity each day, with vigorous intensity activity at least 3 days per week.²⁴ ²⁵ Physical activity after a cancer diagnosis has been shown to improve physical functioning, quality of life, and fatigue²⁶ and may also reduce the risk of recurrence.²⁷

ACS Guidelines recommend consuming a healthy diet, with an emphasis on plant foods. The Guidelines emphasize portion control for weight management, limiting red and processed meats, eating at least 2.5 cups of fruits and vegetables daily, reducing consumption of sugar-sweetened beverages, choosing whole grains over refined grain products, and limiting alcohol consumption to no more than one drink per day for women and two for men.

Helping Americans to eat healthy, be physically active, and manage their weight saves lives. Several recent studies have found that nonsmoking adults who followed cancer prevention guidelines for weight control, diet, physical activity, and alcohol had a lower risk of dying from cancer,²⁸ cardiovascular disease, and all causes.²⁹

References

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