

# Healthy Eating, Active Living, and Cancer: Making Healthy Lifestyles a National Priority

## The Cancer Link

An unhealthy diet, excess body weight, alcohol consumption, and physical inactivity account for a little over 18% of cancer cases and nearly 16% of cancer deaths in the U.S. – the second highest percentages for any risk factor (after cigarette smoking) in both men and women.<sup>i</sup> Addressing these issues can improve health outcomes for individuals across the cancer continuum, such as reducing a person's risk of cancer and improving long term outcomes in cancer survivors.

## Weight

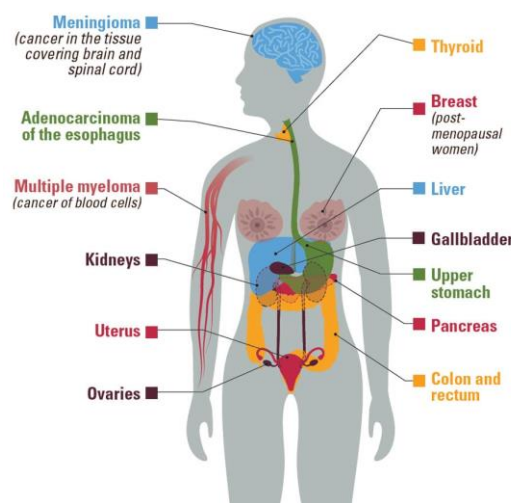
Excess body fat can cause cancers of the breast (postmenopausal), endometrium, kidney (renal cell), esophagus (adenocarcinoma), colon, rectum, gastric cardia, liver, gallbladder, pancreas, ovary, thyroid, myeloma, and meningioma.<sup>ii,iii</sup> There is some evidence that excess body fat can increase the risk of advanced, high-grade, or fatal prostate cancer and cancers of the oral cavity, pharynx, and larynx.<sup>iv</sup> Sustained weight loss may reduce the risk of developing cancer.<sup>v</sup>

## Nutrition

Access to, affordability of, and consumption of nutritious food is a social determinant of health (SDOH) that plays an important role in addressing health disparities. Research has found that food insecurity can be associated with poor diet quality, obesity, and reduced fruit and vegetable intake.<sup>vi</sup> Fruit and vegetables (including beans) are complex foods, containing vitamins, minerals, fiber, and other substances that may both help prevent cancer and improve cancer outcomes.<sup>vii</sup>

Conversely, poor diet, including the consumption of high-calorie foods and beverages, is a major contributor to excess weight and increases the risk of cancer. The American Cancer Society (ACS) recommends following a healthy eating pattern at all ages that includes nutrient-rich foods, to reduce cancer risk and that maintain a healthy weight. A healthy eating pattern does not include, or limits processed and red meats, sugar-sweetened beverages, highly processed foods, and refined grains. For cancer prevention, it is best not to drink alcohol,<sup>viii</sup> as alcohol use increases the risk of several cancers, including cancers of the upper aerodigestive tract, liver, colon, rectum and breast.<sup>ix,x</sup> Recent research has also found that non-smoking adults who followed the ACS guidelines for weight control, diet, physical activity, and alcohol consumption lived longer and had a lower risk of dying from cancer and cardiovascular disease.<sup>xi,xii</sup> For cancer patients, ACS recommends nutrition assessment as soon as possible after cancer diagnosis, to help prevent or resolve nutrient deficiencies, preserve muscle mass, and manage the side effects of treatments that may adversely affect nutritional status.

13 cancers are associated with overweight and obesity



Source: Centers for Disease Control and Prevention

## Physical Activity

Regular physical activity helps to reduce cancer risk in several ways, including beneficial effects on metabolism, inflammation, and hormonal function, as well as through helping to maintain a healthy body weight. Research shows physical activity reduces the risk of up to eight types of cancer and emerging evidence suggests a benefit for other cancer types. ACS and other experts recommend that adults, with or without disabilities, engage in at least 150–300 minutes of moderate-intensity or 75–150 minutes of vigorous-intensity activity each week (or a combination of the two) and that children and adolescents engage in at least one hour of moderate- or vigorous-intensity activity each day.<sup>xiii,xiv</sup> It's recommended that children, adolescents, and adults with chronic conditions or disabilities engage in regular physical activity according to their abilities. Physical activity may also be beneficial after a cancer diagnosis by reducing the risk of recurrence or death and improving quality of life.<sup>xv</sup>

## Improving Nutrition and Physical Activity

Despite the evidence linking excess weight, poor nutrition, excess alcohol consumption, and physical inactivity to increased cancer risk and worse outcomes for cancer patients, most Americans, including cancer survivors and children, do not meet recommended nutrition and physical activity targets.<sup>xvi</sup> Social, economic, and environmental factors strongly influence individual choices about diet and physical activity. Reversing obesity trends and reducing the associated cancer risk will require a broad range of strategies that include policy and environmental changes that make it easier for individuals to regularly make healthy diet and physical activity choices and have access to evidence-based treatment for obesity.

## ACS CAN: Advancing Evidenced-Based Policies that Encourage Healthy Lifestyles

The American Cancer Society Cancer Action Network (ACS CAN) supports public policies at the local, state, and federal level that make it easier for children and adults to eat a healthy diet and to be physically active, thereby reducing their long-term cancer risk. Two of the policies ACS CAN is focused on are protecting and implementing recent improvements in school nutrition and ensuring that the federal government's diet and physical activity guidelines reflect the current science on cancer.

## School Nutrition and Increasing Access to School Meals

School meals offer students a variety of fruits and vegetables, whole grains, and age-appropriate portion sizes and may be the only nutritious meals many children eat during the day. In fact, a 2021 study evaluating the quality of meals consumed by both children and adults over a 16-year period found that school meals provided the highest quality food source for Americans – more so than grocery stores, restaurants, worksites, and food trucks.<sup>xvii</sup> ACS CAN supports maintaining and continuing to implement evidence-based national school nutrition standards for school meals and snacks, including foods and beverages sold a la carte, in vending machines, and in school stores. ACS CAN opposes any efforts to weaken or roll back these important



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cancer-prevention policies. In addition, ACS CAN advocates to reduce food and nutrition insecurity and improve diet quality by supporting universal free school meal policies and expanding access to the Community Eligibility Provision that also allows high-poverty schools to offer school meals at no charge to all students.

## Federal Diet and Physical Activity Guidelines

ACS CAN strongly supports ensuring that the federal *Dietary Guidelines for Americans* (currently being updated) and *Physical Activity Guidelines for Americans* reflect the current science regarding diet, physical activity, and cancer risk. These guidelines help Americans lead a healthy lifestyle, including lowering their risk of cancer, and form the basis of all federal policies and programs. They also inform many private and state and local initiatives on nutrition and physical activity.

For more information on ACS CAN’s advocacy work around healthy eating and active living environments, please visit <https://www.fightcancer.org/what-we-do/healthy-eating-and-active-living>.

For more information on ACS’ Guideline for Diet and Physical Activity for Cancer Prevention please visit <https://www.cancer.org/cancer/risk-prevention/diet-physical-activity/acs-guidelines-nutrition-physical-activity-cancer-prevention.html>.

For more information on ACS’ Nutrition and Physical Activity Guideline for Cancer Survivors please visit <https://www.cancer.org/health-care-professionals/american-cancer-society-survivorship-guidelines/nupa-guidelines-for-cancer-survivors.html>.

<sup>i</sup> Islami F, Goding Sauer A, Miller KD, et al. Proportion and number of cancer cases and deaths attributable to potentially modifiable risk factors in the United States. *CA Cancer J Clin*. 2018;68: 31-54.

<sup>ii</sup> International Agency for Research on Cancer. IARC Handbooks of Cancer Prevention: Weight Control and Physical Activity. Vol 6. World Health Organization/ IARC; 2002

<sup>iii</sup> Lauby-Secretan B, Scoccianti C, Loomis D, et al. Body fatness and cancer—viewpoint of the IARC Working Group. *N Engl J Med*. 2016; 375:794-798.

<sup>iv</sup> World Cancer Research Fund/American Institute for Cancer Research. Diet, Nutrition, Physical Activity and Cancer: A Global Perspective. Continuous Update Project. The Third Expert Report. American Institute for Cancer Research; 2018. Accessed July 21, 2019. [wcrf.org/dietandcancer](http://wcrf.org/dietandcancer)

<sup>v</sup> Fillon, M. (2022), Sustained weight loss may reduce cancer risk. *CA A Cancer J Clin*, 72: 505-506. <https://doi.org/10.3322/caac.21761>.

<sup>vi</sup> Morales ME, Berkowitz SA. The Relationship between Food Insecurity, Dietary Patterns, and Obesity. *Curr Nutr Rep*. 2016 Mar;5(1):54-60. doi: 10.1007/s13668-016-0153-y. Epub 2016 Jan 25. PMID: 29955440; PMCID: PMC6019322.

<sup>vii</sup> Rock, CL, Thomson, CA, Sullivan, KR, Howe, CL, Kushi, LH, Caan, BJ, Neuhaus, ML, Bandera, EV, Wang, Y, Robien, K, Basen-Engquist, KM, Brown, JC, Courneya, KS, Crane, TE, Garcia, DO, Grant, BL, Hamilton, KK, Hartman, SJ, Kenfield, SA, Martinez, ME, Meyerhardt, JA, Nekhyudov, L, Overholser, L, Patel, AV, Pinto, BM, Platek, ME, Rees-Punia, E, Spees, CK, Gapstur,

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<sup>viii</sup> Rock, CL et al. American Cancer Society guideline for diet and physical activity for cancer prevention. *CA Cancer J Clin* 2020; 0:1-27.

<sup>ix</sup> International Agency for Research on Cancer (IARC) Monographs Working Group. Alcoholic Beverages. IARC Mono-graphs on the Evaluation of Carcinogenic Risks to Humans. Vol 44. World Health Organization/IARC; 1988.

<sup>x</sup> International Agency for Research on Cancer (IARC). Monographs on the Evaluation of Carcinogenic Risks to Humans: Alcohol consumption and ethyl carbamate. Vol 96. Lyon, France: IARC Press; 2010.

<sup>xi</sup> Kohler LN, Garcia DO, and Harris RB. Adherence to Diet and Physical Activity Cancer Prevention Guidelines and Cancer Outcomes: A Systematic Review. *Cancer Epidemiol Biomarkers Prev* 2016; 25(7): 1018-28.

<sup>xii</sup> McCullough ML, Patel AV, Kushi LH, et al. Following Cancer Prevention Guidelines Reduces Risk of Cancer, Cardiovascular Disease, and All-Cause Mortality. *Cancer Epidemiol Biomarkers Prev* 2011; 20(6): 1089-97.

<sup>xiii</sup> Rock, CL et al. American Cancer Society guideline for diet and physical activity for cancer prevention. *CA Cancer J Clin* 2020; 0:1-27.

<sup>xiv</sup> U.S. Department of Health and Human Services. *Physical Activity Guidelines for Americans, 2nd edition*. Washington, DC: U.S. Department of Health and Human Services; 2018. Available at <https://health.gov/paguidelines/second-edition/>.

<sup>xv</sup> Rock CL, et al. American Cancer Society Nutrition and Physical Activity Guidelines for Cancer Survivors. *CA Cancer J Clin*. 2022 May;72:231-262. doi: [10.3322/caac.21719](https://doi.org/10.3322/caac.21719).

<sup>xvi</sup> Kushi, 2012.

<sup>xvii</sup> Liu J, Micha R, Li Y, Mozaffarian D. Trends in Food Sources and Diet Quality Among US Children and Adults, 2003-2018. *JAMA Netw Open*. 2021;4(4):e215262. doi:10.1001/jamanetworkopen.2021.5262.