



Benefits of Exercise for Cancer Prevention and Recurrence



10-20%

lower risk

of developing several common cancers including breast, colon, and prostate with regular physical activity

(McTiernan *et al.*, 2003; American Cancer Society, 2020).



50% reduction of recurrence or mortality risk for cancer survivors who **achieve** at least 18 MET-hours/week of **activity** (approx. 6 hrs of walking) (Irwin *et al.*, 2009).



Physical activity after cancer diagnosis significantly reduces mortality risk and improves survival, especially in breast and colorectal cancer (Courneya *et al.*, 2004).



Exercise enhances immune function, increasing activity of natural killer cells and macrophages associated with anti-tumor effects (Rajarajeswaran & Vishnupriya, 2009).



Cancer survivors who exercise regularly report higher quality of life, increased functional ability, and improved mood, with lower risk of recurrence (Saxton & Daley, 2010).



Physical activity relieves major treatment side effects, such as fatigue, depression, and loss of mobility, and supports daily independence (Herath *et al.*, 2015; Turbitt *et al.*, 2015).



150 recommended minimum of moderate aerobic activity and resistance **mins/week** training for most cancer survivors from clinical guidelines (American College of Sports Medicine, 2019).



Exercise is safe and feasible for nearly all cancer patients and survivors, and is strongly recommended by major oncology and exercise organizations (National Cancer Institute; NCCN Guidelines; Cancer Exercise Training Institute).



References

McTiernan A, Kooperberg C, White E, et al. Recreational physical activity and the risk of breast cancer in postmenopausal women: The Women's Health Initiative Cohort Study. *JAMA*. 2003;290(10):1331-1336.

American Cancer Society. How Exercise Can Lower Cancer Risk. <https://www.cancer.org/healthy/eat-healthy-get-active/get-active/how-exercise-can-lower-cancer-risk.html>. Published February 18, 2020. Accessed November 13, 2025.

Irwin ML, Varma K, Alvarez-Reeves M, et al. Randomized controlled trial of aerobic exercise on insulin and insulin-like growth factors in breast cancer survivors: The Yale Exercise and Survivorship Study. *Cancer Epidemiol Biomarkers Prev*. 2009;18(10):3063-3068.

Courneya KS. Effects of an oncologist's recommendation to exercise on self-reported exercise behavior in newly diagnosed breast cancer survivors. *Ann Behav Med*. 2004;28(2):105-113.

Rajarajeswaran P, Vishnupriya R. Exercise in cancer. *Indian J Med Paediatr Oncol*. 2009;30(2):61-70. Saxton J, Daley A. Exercise and cancer survivorship: impact on health outcomes and quality of life. Springer; 2010.

Herath K, Dranka BP, Lessmann GM, et al. Chemotherapy-induced fatigue and mitochondrial function in early stage breast cancer. *Cancer Res*. 2015;75:P2-12-08.

Turbitt WJ, Sosnowski D, Mastro A, Rogers C. Exercise, alone and in combination with a whole tumor cell vaccine, reduces mammary tumor cell growth and enhances anti-tumor immunity. *Cancer Res*. 2015;75:2877.

American College of Sports Medicine. ACSM's Guidelines for Exercise Testing and Prescription. 10th ed. Wolters Kluwer; 2019.

National Comprehensive Cancer Network. NCCN Guidelines for Survivorship. https://www.nccn.org/professionals/physician_gls/default.aspx#survivorship. Accessed November 9, 2025.

Cancer Exercise Training Institute. Cancer Exercise Specialist education. <https://www.thecancerspecialist.com/>. Accessed November 9, 2025.