



Choose to Move for Cancer Protection and Recovery



With each passing year, it seems more of us know someone whose life has been turned upside down by a cancer diagnosis. Yet even as the race is on to discover new drugs, and therapies we know that nearly 50% of cancer deaths can be prevented through lifestyle changes and routine screenings. Smokers aside, experts estimate that one in three of the

enhanced. At all cancer sites, exercise increases anti-tumor immune defenses and lowers levels of circulating insulin and insulin-like growth factor that in turn enhance the division of normal cells and inhibit cell death.³

Exercise and cancer patients or survivors

Recent literature reviews on physical activity and cancer patients during and after treatment suggest benefits such as improved physical functioning and performance, better quality of life, reduced fatigue and depression, and improved muscular fitness. However randomised clinical studies are few, small in scope, and mainly focus on breast cancer patients. Complete knowledge about the type of physical exercise most beneficial for patients at different stages of the disease progression is still lacking.⁴

How much exercise?

Recommendations vary for cancers at different sites : vigorous activity for 45-60 minutes lowers the risk of colon cancer, while moderate activity (30 minutes) is effective against breast and endometrial cancers. Exercising at least 5 days per week is recommended.³ Daily activities or hobbies such as housework and gardening also qualify.⁵ For some people, becoming more active may be as difficult as changing their eating habits, but research shows that small changes can have big effects.^{6,7} In this case, the pay-off may prove to be life-changing in a wonderful way!

564,830 deaths from all forms of cancer this year will be related to poor nutrition, inactivity, and overweight.¹ We **can** do something about these awful statistics - that is get moving!

Why exercise?

The positive benefits of regular physical activity are impressive:

- Lower blood pressure, cholesterol, and fat
- A stronger heart, healthier blood vessels, lower risk of diabetes
- Increased energy and self-esteem
- More flexible joints, tendons, and ligaments
- Stronger bones - lower risk of fractures
- Reduced stress and anxiety; less risk of depression
- Deeper, more restful sleep
- A longer lifetime for all the things we want to do²

Exercise and cancer risk

Last summer the American Institute for Cancer Research reviewed what is known about this connection. Over 180 observational epidemiologic studies have examined the relationship between physical activity and cancer prevention at specific cancer sites. The benefits of physical activity on cancer risk can be classified as "convincing" for colon and breast cancer, "probable" for endometrial cancer, and "possible" for prostate and lung cancer. This translates to an average 10-30 % risk reduction for prostate cancer; 30 - 40 % for breast, endometrial, and lung cancers, and a 40-50 % risk reduction for colon cancer.³

Why? Nothing is known for certain yet, but researchers have some good ideas. Exercise tends to lower biologically available sex hormones; an overabundance is implicated in hormone related cancers of reproductive tissues of both sexes. Obese women have increased infertility which may increase breast cancer risk. Also carcinogens are typically stored in abdominal fat, and may be released in overweight people. Indeed, it is suggested that weight control may be especially important in reducing cancer risk. Physical activity increases the muscular waves that move food through the gastrointestinal tract, reducing the time the gut lining is exposed to carcinogens. Strenuous activity increases prostaglandin F, which inhibits overgrowth of colonic cells. Acid metabolism is also

Resources

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5. *Physical activity in your daily life.* American Heart Association. More ideas for home, office and play. <http://www.americanheart.org/presenter.jhtml?identifier=2155>
6. *Make small changes in your lifestyle habits.* Lay, J.M. <http://tinyurl.com/nskpd>
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