

Fight prostate cancer with exercise

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In addition to improving fitness, study shows that an aerobic exercise program slows the progression of prostate cancer in men at high risk of developing severe forms of the disease.

In Canada, approximately 11% of men will be affected by prostate cancer in their lifetime, making it the cancer with the highest incidence in the male population. However, many of these cancers grow slowly, are not very aggressive and therefore do not pose an immediate danger to health.

For men with this low-risk type of prostate cancer, we usually go for what is called active surveillance, that is, instead of treating the cancer immediately with surgery and radiation therapy, rather, the progress of the cancer is carefully monitored with the help of regular tests and examinations (dosage of the prostate antigen PSA, physical examination) and the treatments are initiated only if there is a progression of the tumor.

This close follow-up is very important because about half of the men who are under active surveillance require more aggressive cancer treatment within 10 years of diagnosis.

HEART AND PROSTATE, SAME FIGHT

In addition to being more at risk of developing aggressive prostate cancer over time, men under active surveillance are generally older and therefore more at risk of cardiovascular disease, one of the main chronic diseases affecting the aging population.

In fact, studies show that men under active surveillance overall are three times more likely to die from cardiovascular disease than from complications from prostate cancer (1).

To increase the probability of survival of these patients, it is therefore necessary both to improve cardiovascular health while minimizing the progression of prostate cancer.

Exercise is arguably the best way to achieve this. On the cardiac side, it is clearly established that aerobic physical activity improves cardiorespiratory capacity and substantially reduces premature mortality caused by cardiovascular disease.

When it comes to cancer, studies show unequivocally that the most active and physically fit people have a lower risk of getting multiple types of cancer.

In general, physically fitter people are also more resistant to cancer treatments, have less risk of cancer recurrence, and have a higher likelihood of survival.

ONE STONE, TWO BLOWS

To examine the impact of aerobic exercise on the progression of prostate cancer, a team of researchers recruited 52 men (mean age 63) diagnosed with low to moderate risk localized prostate cancer and who were under active surveillance (2).



The participants were randomly separated into two groups, a control group, with no change in their daily routine, and an intervention group subjected to twelve weeks of aerobic exercise training, three sessions per week.

The program chosen for the study was high-intensity intermittent exercise, a training method based on alternating intense exertion, but of short duration, and periods of low-intensity activity or rest.

In the study, the training consisted of running participants at maximum intensity for two two-minute periods, interspersed with a cool-down period.

After 12 weeks, the researchers could note that this type of training had already caused several improvements in the health of the participants.

The first is obviously physical fitness: men subjected to interval exercise showed a noticeable increase in the volume of maximum oxygen consumed during exercise (VO2 max), a parameter that is considered to be the best marker of good cardiovascular health.

The benefits of the exercise program do not end there, however, as several parameters associated with prostate cancer are also improved: decrease in PSA levels, decrease in the rate at which PSA increases in the blood and decrease of the growth potential of prostate cancer cells.

Exercise therefore kills two birds with one stone, both improving heart health and slowing the progression of prostate cancer. Another example that shows how being physically active is the key to a healthy long life. year!

- (1) Hamdy FC et al. 10-year outcomes after monitoring, surgery, or radiotherapy for localized prostate cancer. *N Engl J Med.* 2016 ; 375 : 1415-1424.
- (2) Kang DW et al. Effects of exercise on cardiorespiratory fitness and biochemical progression in men with localized prostate cancer under active surveillance: The ERASE randomized clinical trial. *JAMA Oncol.* (published online, August 19th 2021)