Exercise May Fight Cancer

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It is commonly known that exercise has many benefits for the body. It reduces your risk of heart disease, keeps you in shape, reduces stress, improves your mood, and more. People with cancer who exercise regularly tend to have better outcomes than patients who are inactive. One explanation is that physical activity helps activate the immune system, boosting the body's ability to block cancer growth. Researchers in Sweden have expanded on this in their recent study.

The researchers examined the effect of exercise on how mice responded to cancer. They separated mice with cancer into two groups. One group exercised regularly in a spinning wheel and the second group remained inactive. They found that in the active group, cancer growth slowed down and there was a lower death rate. Next, they focused on the cytotoxic T cells, immune cells that kill cancer cells, by injecting antibodies that kill those cells. When that was done, the positive effect of exercise on the mice was essentially eliminated. This suggests that T-cells are involved in the exercise-linked boost in fighting cancer. Also, when the T cells were transferred from the active to inactive mice, the inactive mice improved.

To further examine how the influence of physical activity, the researchers also studied small chemicals called metabolites, which are often produced during exercise. Some metabolites, such as lactate, increased the activity of cytotoxic T cells in both mice and humans. Activation of these cancer-fighting cells inhibits cancer growth. These results show that our lifestyle can affect our immune system and cancer risk.

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