Daily Physical Activity, Even at Light Intensities, Linked to Lower Cancer Risk

NIH study finds number of steps taken daily may be more important for cancer risk than the intensity of activity.

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In a prospective cohort study of more than 85,000 adults in the United Kingdom, researchers at the National Institutes of Health (NIH) and University of Oxford found that individuals who engaged in light- and moderate-to-vigorous-intensity daily physical activity had a lower risk of cancer than individuals who were more sedentary.

The findings, published March 26, 2025, in British Journal of Sports Medicine, are among the first to evaluate the cancer risk reduction associated with light intensity activities such as doing errands and performing household chores.

Previous studies have shown an inverse association between physical activity and cancer risk, but most of these studies relied on self-reported questionnaires, which may not accurately capture the intensity of different activities. Earlier studies that used objective measures were focused on higher-intensity physical activity.

In the new study, led by researchers from NIH's National Cancer Institute, participants in the UK Biobank study (median age of 63) wore wrist accelerometers that tracked total daily activity, activity intensity, and daily step count over a period of one week. The researchers then looked at the relationship between the daily averages and incidence of 13 cancer types, including breast and colorectal cancer, previously associated with physical activity.

After a mean follow-up of 5.8 years, 2,633 participants had been diagnosed with one of the 13 cancer types. Individuals with the highest total amount of daily physical activity had a 26% lower risk of developing cancer than individuals who had the lowest amount of daily physical activity.

The researchers also explored the impact of replacing daily sedentary time with light- and moderate-to-vigorous-intensity physical activity and found that this shift was associated with a reduced risk of cancer. The associations between physical activity and cancer risk remained even after researchers adjusted for demographic factors, lifestyle factors, body mass index (BMI), and

other health conditions.

Higher daily step count, but not the pace of the steps (step intensity), was also associated with a lower risk of cancer. Compared with cancer risk in those taking 5,000 steps per day, cancer risk was 11% lower for those taking 7,000 steps per day and 16% lower for those taking 9,000 steps per day. Beyond 9,000 steps, the risk reduction plateaued. The researchers suggested that less physically active individuals may lower their cancer risk by incorporating more walking, at any pace, into their daily routine.

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