

Climb the stairs, lug the shopping, chase the kids: Incidental vigorous activity linked to lower cancer risks

July 28 2023, by Emmanuel Stamatakis and Matthew Ahmadi



Credit: CC0 Public Domain

Many people know exercise reduces the risk of [cancers](#), including liver, lung, breast and kidney. But structured exercise is time-consuming,

requires significant commitment and often financial outlay or travel to a gym. These practicalities can make it infeasible for [most adults](#).

There is [very little research](#) on the potential of incidental [physical activity](#) for reducing the risk of cancer. Incidental activities can include doing errands on foot, work-related activity or housework as part of daily routines. As such they do not require an extra time commitment, special equipment or any particular practical arrangements.

In our [study](#) out today, we explored the health potential of brief bursts of vigorous physical activities embedded into daily life. These could be short power walks to get to the bus or tram stop, stair climbing, carrying heavy shopping, active housework or energetic play with children.

How was the study done?

Our [new study](#) included 22,398 [UK Biobank](#) participants who had never been diagnosed with cancer before and did not do any structured exercise in their leisure time.

Around 55% of participants were female, with an average age of 62. Participants wore wrist activity trackers for a week. Such trackers monitor [activity levels](#) continuously and with a high level of detail throughout the day, allowing us to calculate how hard and exactly for how long people in the study were moving.

Participants' activity and other information was then linked to future cancer registrations and other cancer-related health records for the next 6.7 years. This meant we could estimate the overall risk of cancer by different levels of what we call "[vigorous intermittent lifestyle physical activity](#)", the incidental bursts of activity in everyday life. We also analyzed separately a group of [13 cancer sites in the body](#) with more established links to exercise, such such as breast, lung, liver, and bowel

cancers.

Our analyses took into account other factors that influence cancer risk, such as age, smoking, diet, and alcohol habits.

What we found out

Even though study participants were not doing any structured exercise, about 94% recorded short bursts of [vigorous activity](#). Some 92% of all bouts were done in very short bursts lasting up to one minute.

A minimum of around 3.5 minutes each day was associated with a 17–18% reduction in total cancer risk compared with not doing any such activity.

Half the participants did at least 4.5 minutes a day, associated with a 20–21% reduction in total cancer risk.

For cancers such as breast, lung and bowel cancers, which we know are impacted by the amount of exercise people do, the results were stronger and the risk reduction sharper. For example, a minimum of 3.5 minutes per a day of vigorous incidental activity reduced the risk of these cancers by 28–29%. At 4.5 minutes a day, these risks were reduced by 31–32%.

For both total cancer and those known to be linked to exercise, the results clearly show the benefits of doing day-to-day activities with gusto that makes you huff and puff.

Our study had its limits

The study is observational, meaning we looked at a group of people and their outcomes retrospectively and did not test new interventions. That

means it cannot directly explore cause and effect with certainty.

However, we took several statistical measures to minimize the possibility those with the lowest levels of activity were not the unhealthiest, and hence the most likely to get cancer—a phenomenon called "[reverse causation](#)."

Our study can't explain the biological mechanisms of how vigorous intensity activity may reduce cancer risk. Previous [early-stage trials](#) show this type of activity leads to rapid improvements in heart and lung fitness.

And higher fitness is linked to lower [insulin resistance](#) and lower [chronic inflammation](#). High levels of these are risk [factors for cancer](#).

There is very little research on incidental physical activity and cancer in general, because most of the scientific evidence on lifestyle health behaviors and cancer is based on questionnaires. This method doesn't capture short bursts of activity and is very inaccurate for measuring the incidental activities of daily life.

So the field of vigorous intensity activity and cancer risk is at its infancy, despite some [very promising](#) recent findings that vigorous activity in short bouts across the week could cut health risks. In another recent study of ours, we found benefits from daily [vigorous intermittent lifestyle activity](#) on the risk of death overall and death from cancer or cardiovascular causes.

In a nutshell: get moving in your daily routine

Our study found three to four minutes of vigorous incidental activity each day is linked with decreased [cancer risk](#). This is a very small amount of activity compared to [current recommendations](#) of 150–300

minutes of moderate intensity or 75–150 minutes of vigorous intensity activity a week.

Vigorous incidental physical activity is a promising avenue for cancer prevention among people unable or unmotivated to exercise in their leisure time.

Our study also highlights the potential of technology. These results are just a glimpse how wearables combined with [machine learning](#)—which our study used to identify brief bursts of vigorous activity—can reveal health benefits of unexplored aspects of our lives. The future potential impact of such technologies to prevent [cancer](#) and possibly a [host of other](#) conditions could be very large.

This article is republished from [The Conversation](#) under a Creative Commons license. Read the [original article](#).

Provided by The Conversation

Citation: Climb the stairs, lug the shopping, chase the kids: Incidental vigorous activity linked to lower cancer risks (2023, July 28) retrieved 28 April 2024 from <https://medicalxpress.com/news/2023-07-climb-stairs-lug-kids-incident.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--