

Treadmill desks offer limited benefits, pose challenges in the workplace, study shows

February 9 2015

Treadmill desks can help overweight or obese office workers get out of their chairs and get moving, but a 12-week study by an Oregon State University researcher found that the increase in physical activity was small and did not help workers meet public health guidelines for daily exercise.

Introducing treadmill desks in the workplace also can pose logistical challenges that may not make such a program feasible for companies, said John M. Schuna, Jr., an assistant professor of exercise and sports science in the College of Public Health and Human Sciences at OSU.

In a small study of treadmill desk use by overweight and obese [office workers](#), Schuna and his colleagues found that workers who used the desks increased their average number of daily steps by more than 1,000, but did not record any significant weight loss or changes in Body Mass Index after 12 weeks. The employees only used the treadmills about half the time they were asked to, averaging one session and 45 minutes a day on the machines, Schuna said.

"Treadmill desks aren't an effective replacement for regular exercise, and the benefits of the desks may not justify the cost and other challenges that come with implementing them," Schuna said.

His findings were published recently in the *Journal of Occupational and Environmental Medicine*. Co-authors include Damon L. Swift of East Carolina University and several researchers from the Pennington

Biomedical Research Center in Baton Rouge, Louisiana. The research was supported by Blue Cross and Blue Shield of Louisiana.

Treadmill desks have been gaining popularity as a solution for helping sedentary workers out of their desk chairs during the work day. Schuna and his colleagues wanted to evaluate the effectiveness of such desks in changing workers' behavior.

"There's been a societal shift to more sedentary work and we are not making it up in our leisure time," Schuna said. "We were trying to identify ways we could increase [physical activity](#) and combat the decline in occupational physical activity we've seen in the past 50 years."

The study targeted overweight and obese office workers whose jobs at a private health insurance company required continuous desk work. About 40 employees participated in the 12-week study, with half using the treadmills and the other half serving as a control group for comparison.

While the participants who used treadmills did increase their daily step counts, they tended, on average, to walk at about 1.8 miles an hour, a speed that would generally be considered light intensity physical activity. Public health guidelines suggest adults need 30 minutes of moderate to [vigorous physical activity](#) several days a week.

"This was not moderate-intensity exercise," Schuna said. "One of the challenges with the treadmill desk is that it needs to be lower-intensity activity so employees can still perform their work duties."

There may be cardiovascular or other benefits when people begin increasing their steps, even in small amounts at low intensity, but reversing the effects of a sedentary lifestyle would likely require more activity, including moderate or vigorous exercise, he said.

Researchers faced several challenges with the study, including difficulty recruiting employees to participate. Initially, more than 700 employees of the company were targeted for recruitment, with roughly 10 percent of them expressing interest in participating. Some of those employees were deemed ineligible for the study for a variety of reasons, while others did not receive approval from a supervisor.

They also found work considerations often kept employees from using the desks, even though the company had approved and encouraged [employees](#) to participate in the program. Employees shared the treadmill desks, which required scheduling the time they would be using them.

Schuna said the findings from this study indicate that future research on exercise in the workplace should focus on interventions that avoid some of the pitfalls that come with treadmill desks.

"We need to identify some form of physical activity that can be done simply and at a low cost in an office setting," he said.

Provided by Oregon State University

Citation: Treadmill desks offer limited benefits, pose challenges in the workplace, study shows (2015, February 9) retrieved 26 April 2024 from <https://medicalxpress.com/news/2015-02-treadmill-desks-limited-benefits-pose.html>

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