

Study finds prescribed work breaks can counter effects of sitting

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At a time when sitting for long hours at work has become the norm, a [study](#) by researchers in Western's School of Kinesiology sheds light on how taking breaks can impact our well-being.

The results of the study, led by professor Marc Mitchell, research

coordinator Madison Hiemstra, MSc, and a team that includes sedentary behavior and behavioral science experts, offer a perspective on implementing strategies to improve physical well-being. The work has been published in *Translational Behavioral Medicine*.

According to Hiemstra, [office workers](#) are subject to potential harm due to prolonged periods of sitting, which can account for up to 80 percent of their workday. This [sedentary lifestyle](#) poses significant health risks, ranging from type 2 diabetes, [cardiovascular disease](#), and certain cancers to high blood pressure and increased mortality rates.

More concerning is the fact that remote workers, growing in numbers since the pandemic, might be even more sedentary than their in-office counterparts, according to COVID-19-related data.

"It's not just about sitting too much, it's also about the pattern of how you sit throughout the day," Hiemstra said. "Sitting for long, unbroken periods can also add increased risk for negative health outcomes."

The study explored whether providing individuals with the choice to determine when and how to take breaks from sitting leads to more favorable outcomes than adhering to prescribed strategies.

Participants were split into two distinct groups, those given the freedom to choose their preferred strategies for reducing the time they spend sitting ('choice' group) and those assigned strategies without any choice ('no choice' group). In the 'choice' group, participants could self-select strategies from a list of options or have strategies recommended by experts assigned to them.

In contrast, the 'no choice' group had no say in the matter and were randomly assigned to either pick their own strategies or follow expert recommendations. This investigation aimed to explore the impact of

choice on the adoption of sitting reduction strategies among employees.

Over four weeks, the participants were monitored for the frequency and duration of their breaks from sitting, alongside the overall time spent sitting, standing and moving. The targeted aim was to prompt participants to take short breaks every 30 to 45 minutes, each lasting two to three minutes.

The study findings demonstrated that participants in both groups exhibited an uptick in break frequency and a corresponding decrease in total sitting time over the course of the study. This positive trend reflects the efficacy of interventions designed to counter the detrimental effects of prolonged sitting.

Particularly noteworthy was the 'no choice' group, which not only extended the frequency of their breaks from sitting but also increased their break duration. This outcome shows how people can adapt to break strategies and benefit from them.

"When considering employee well-being, our results suggest in some cases employers may want to consider offering programs that are a little more straightforward, or more prescriptive," Mitchell said.

Shorter breaks lead to balanced outcomes

The study's foremost recommendation notes that longer breaks aren't necessary to achieve significant health improvements. Instead, shorter breaks have been shown to strike the ideal balance between enhancing work productivity and fostering lasting behavioral change, all while promoting better health outcomes.

Central to the research was a simple yet effective workplace intervention—a three-minute-long educational video. This video,

grounded in established theories, delved into the risks and advantages of modifying sedentary behaviors.

What sets this intervention apart is its low-cost, digitally delivered nature. The study's success in implementing this user-friendly approach highlights its potential applicability across various work sectors.

"Employers seeking to help modify their remote employees' sedentary behaviors can easily implement and offer this type of intervention with the promise of improved break frequencies and durations, ultimately improving short and long-term health outcomes, without compromising productivity," Hiemstra explained.

While this study was one of the first to complete a large-scale, objective evaluation of sedentary behaviors in remote office workers, the team is hopeful that additional research will follow.

"We encourage further research that focuses on measurements of sedentary [break](#) frequency and duration, as opposed to the traditional measures of total standing and sitting time, as well as total number of breaks, in order to provide a holistic picture of office workers' workdays," Hiemstra said.

More information: Madison Hiemstra et al, When it comes to sedentary behaviour modification, should people be told what to do? A randomized comparison trial among home-based office workers living in Ontario, Canada, *Translational Behavioral Medicine* (2023). [DOI: 10.1093/tbm/ibad047](https://doi.org/10.1093/tbm/ibad047)

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