

WELL | MOVE

Work. Walk 5 Minutes. Work.

Phys Ed

By GRETCHEN REYNOLDS DEC. 28, 2016

Stuck at your work desk? Standing up and walking around for five minutes every hour during the workday could lift your mood, combat lethargy without reducing focus and attention, and even dull hunger pangs, according to an instructive new study.

The study, which also found that frequent, brief walking breaks were more effective at improving well-being than a single, longer walk before work, could provide the basis for a simple, realistic New Year's exercise resolution for those of us bound to our desks all day.

There is growing evidence, of course, that long bouts of uninterrupted sitting can have undesirable physical and emotional consequences. Studies have shown that sitting motionless reduces blood flow to the legs, increasing the risk for atherosclerosis, the buildup of plaques in the arteries.

People who sit for more than eight or nine hours daily, which for many of us describes a typical workday, also are at heightened risk for diabetes, depression and obesity compared with people who move more often.

In response, researchers and some bosses have proposed a variety of methods for helping people reduce their sitting time at work, including standing workstations and treadmill desks.

But such options are cumbersome and costly, making them impractical for many work situations.

Some experts have worried, too, that if people are physically active at the office, they might subsequently become more tired, grumpy, distracted or hungry, any of which could have an undesirable effect on work performance and long-term health.

So for the new study, which was published in November in the *International Journal of Behavioral Nutrition and Physical Activity*, researchers from the University of Colorado Anschutz Medical Campus, the Johnson & Johnson Human Performance Institute and other institutions decided to test several methods of increasing movement among office workers. (The study was funded largely by Johnson & Johnson, with additional support from the Colorado Nutrition Obesity Research Center.)

To start, the researchers invited 30 sedentary adult office workers to a university clinic to complete a battery of health tests and questionnaires. The researchers measured their heart rates and stress hormone levels and asked them to rank, on a numerical scale, how energetic or tired they felt, as well as how happy they were, and whether they were feeling peckish or had little appetite just then.

The volunteers also completed computerized games designed primarily to test their ability to concentrate and make decisions.

Then, on three subsequent visits to the clinic, each volunteer simulated a six-hour workday.

During one visit, the volunteers sat for the whole time with no interruptions, except for bathroom breaks.

During another, they walked moderately for 30 minutes at the start of their experimental day, and then sat for the next five and a half hours with no additional scheduled breaks.

Finally, during a third visit, the volunteers sat for most of the six hours, but began each hour with five minutes of moderate walking, using treadmills at the clinic.

At the start and end of each session, the researchers drew blood to check levels of stress hormones. And periodically throughout each day, they asked their volunteers to numerically rate their moods, energy, fatigue and appetites.

The volunteers also repeated the computerized testing of their thinking skills at the close of each session.

The researchers then analyzed the data.

The numbers showed that on almost all measures, the subjects' ratings of how they were feeling rose when they did not sit for six uninterrupted hours. They said that they felt much more energetic throughout the day if they had been active, whether that activity was bunched into a single longish walk at the start of the day or distributed into multiple brief breaks.

On other measures, though, the five-minute walks were more potent than the concentrated 30-minute version. When the workers rose most often, they reported greater happiness, less fatigue and considerably less craving for food than on either of the other days. Their feelings of vigor also tended to increase throughout the day, while they often had plateaued by early afternoon after walking only once in the morning.

There were no differences on the scores on the cognitive tests, whether they sat all day or got up and moved. Stress hormones also remained steady during each visit.

These results suggest that “even a little bit of activity, spread throughout the day, is a practical, easy way to improve well-being,” says Jack Groppel, a study author and a founder of the Johnson & Johnson Human Performance Institute.

He points out that the walking breaks did not cause people to feel more tired or hungry, but instead had the opposite effect. They also did not alter people's ability to focus, so, in theory, should not affect productivity (for good or ill).

This study, however, was small in scale, short-term and limited by its dependence on the volunteers' perceptions of their responses to the experiment.

But even so, “it’s clear that moving matters,” Dr. Groppel says.

So set your 2017 appointment calendar, he suggests, to devote five minutes every hour to physical activity, whether you walk up and down a staircase, along a corridor or just pace around your office.

Correction: January 6, 2017

The Phys Ed column on Tuesday about a study of methods used to increase movement among office workers misstated part of the name of one of the institutions involved in the study. It is the University of Colorado Anschutz Medical Campus (not Center).

A version of this article appears in print on January 3, 2017, on Page D4 of the New York edition with the headline: Work. Walk 5 Minutes. Work.

© 2017 The New York Times Company