

Standing up for weight management

29 August 2016, by Anthony Moore

Alternating positions between standing and sitting while performing deskwork could make the difference in whether the thin red needle in your bathroom scale tilts to the left or the right of your goal weight.

A new study from the University of Pittsburgh's School of Education examined the potential weight management benefits of sit-stand desks. Pitt's researchers found that regular use of a height-adjustable workstation, when combined with other low-intensity activities, is an effective measure for maintaining weight for most people.

The study found that if an individual were to stand for half of one hour—30 minutes—they could burn 5.5 more calories than they would have by [sitting](#) for that entire hour. Standing for the full hour burned an extra 8.2 calories. Switching evenly between sitting and standing over the course of an eight-hour day—four hours sitting and four hours standing—could result in an [energy expenditure](#) of as much as 56.9 calories for men and 48.3 calories for women.

Pitt's researchers acknowledge that the actual caloric expenditure from using a sit-stand desk in isolation is modest. Within their research, they point to separate studies that suggest small increases in daily [physical activity](#), just 100 calories per day, would be enough to prevent weight gain in most individuals. When aligned with such advice, researchers believe regular usage of sit-stand desks could be one of many small energy expenditure changes in the work environment that would help office workers to maintain their weight.

"Sit-stand desks are an easy way to get a boost in energy expenditure that fits into America's current office culture. By combining the act of standing for part of the day with other casual activities—say, opting to walk to the printer farthest away from your work area or choosing to use the restroom that's located a couple of flights of stairs away—you can achieve a meaningful amount of extra energy expenditure while at work that could aid in weight

control," said Bethany Barone Gibbs, the study's lead researcher and an assistant professor of health and physical activity within Pitt's School of Education. "It is important that we understand standing at work isn't going to burn as many [calories](#) as going for a brisk walk or a long run. However, our findings add to a growing field of research that shows the benefits of sit-stand desks, including increases in productivity and energy, and lower pain, blood sugar, and potentially blood pressure."

For the study, subjects performed standardized deskwork at different positions for three separate one-hour sessions: 60 minutes sitting, 60 minutes standing, and 60 minutes spent alternating between sitting and standing for 30 minutes each. Standardized deskwork included copying articles from a magazine and completing worksheets consisting of rudimentary reading comprehension and math exercises. Subjects completed experimental sessions in a random order, at least 48 hours apart, and within four weeks. Participation consisted of 18 individuals—nine men and nine women—between the ages of 22-57. All participants had earned at least a high school degree and worked sedentary office jobs with an average daily sitting time of 8.8 hours.

The study "Energy expenditure of deskwork when sitting, [standing](#) or alternating positions," is currently available online in *Occupational Medicine*.

More information:

occmmed.oxfordjournals.org/content/.../cmed.kqw115.full.pdf

Provided by University of Pittsburgh

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