Ergonomics study finds users need different setups when standing at a computer workstation

April 12 2016

Recent studies have suggested that sitting at the computer all day can negatively affect your health. Sit-stand computer workstations are intended to provide a healthier and more comfortable work environment. But how do you find the best setup of workstation components for a standing workstation? And should it be the same as the setup you use when you're sitting down?

A new study published in *Human Factors: The Journal of the Human Factors and Ergonomics Society* notes that - in the continuing development of guidelines for user-centered standing workstation configurations - users positioned their monitor, mouse, keyboard, and desk height to suit their individual differences. The researchers were interested in determining if a study using a psychophysical protocol could provide guidance for the development of guidelines similar to those for seated computer workstations.

Researchers Michael Y. Lin and Paul Catalano at the Harvard T. H. Chan School of Public Health, and Jack T. Dennerlein at Northeastern University designed a pilot ergonomics study with 20 adults ages 21 to 40 who alternated working at sitting and standing workstations in four testing periods of 45 minutes each. Every 11.25 minutes, the experimenters moved the setups, which the participants then readjusted to their most comfortable setup. Infrared light-emitting diodes were placed on each component and on the users' head, torso and upper arm to

assess when and where they moved the components.

The final standing workstation setups were unique to each participant. Furthermore, each was significantly different from the seated workstation setups, in that the desk and monitor were lower and the mouse and keyboard were closer to the body.

"The high adjustability of the sit-stand workstation allowed users to find their own 'sweet spot.' The sweet spot was different for standing than sitting," noted Dennerlein. "We know that workstation setup is important for reducing discomfort of seated computer workers. However, standing is different from sitting. It was unclear to us if the user configurations would be different for standing. These results suggest that they are indeed different."

More information: erg.sagepub.com/content/23/3.toc

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