

## To Sit or To Stand...?

That is the question! Today there are alternatives to traditional desks in the form of sit-to-stand workstations. They are becoming more popular and less expensive, but, do they actually improve health? Or, are they just another fad or advertising gimmick?

There is certainly no lack of evidence documenting the harmful effects of a sedentary lifestyle. Sitting for durations of more than 1 hour has been shown to induce biochemical changes that adversely affect fat and glucose metabolism, causing fat to be stored instead of consumed by muscles. This potentially harmful result happens to everyone - no matter their weight or level of physical fitness - and may increase the risk of heart disease and/or obesity.

Sit-stand workstations allow users the ability, with varying levels of effort, to switch between sitting and standing positions while working. This sounds like just the ticket, right? Well, on the surface, it might seem to be a no-brainer, but it isn't necessarily as simple as it sounds.

For example, many people do not distribute their weight equally on both feet when standing. Instead, they have a tendency to lean to one side or the other, placing undue stress on various joints, which may lead to problems with the feet, knees, hips, etc. Additionally, many users do not realize that the equipment on a sit-stand workstation may require adjustment when changing from standing to sitting or vice versa. And if the overall height of the desk is not adjusted correctly, the risk factors for wrist, hand, and shoulder injuries may also increase.

## A partial list of potentially harmful effects from prolonged standing at work include:

- Varicose veins
- Sore feet
- Swelling of the legs
- •General muscle fatigue
- Low back pain
- •Stiffness in the neck and shoulders,
- Aggravation of other health problems





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"I've tried regular desks, and standing desks, but I found just plain old laying on the floor works best for me."

The popularity of sit-stand workstations has increased, appearing in large part to be due to claims from studies cited by manufacturers. Cochrane -- a not-for-profit global (spanning 130 countries) independent network of researchers, professionals and others interested in health -- analyzed 20 different studies, with a combined total of 2,174 participants. They concluded that there is not currently enough data available to scientifically determine whether sit-stand workstations are beneficial.

They cited that to date, there are too few studies and studies with too few participants available to review in order to make a solid recommendation regarding sitstand workstations. Additionally, the quality of the studies reviewed is in question as Cochrane indicates many of them were too poorly designed to actually provide conclusive evidence. Also, it appears that a study evaluating the long-term effects of using sit-stand workstations has yet to be conducted as Cochrane points out that, of the studies they reviewed, the maximum observation window was only 6 months.

## **CONCLUSION:**

"... at present there is not enough high-quality evidence available to determine whether spending more time standing at work can repair the harms of a sedentary lifestyle" - Cochrane Work Review Group

There currently appears to be insufficient scientific evidence available to determine if sit-stand workstations can be recommended to actually prevent injuries. Overall, the key to preventing injuries would appear to rest primarily with how users interface with their work environment. More information should become available as more and better studies are conducted. In the meantime, department-specific ergonomic training is available through Keenan Safe Schools.

## **INVEST IN YOUR FUTURE**

Preventing cumulative injuries like carpal tunnel syndrome or chronic low back pain requires ongoing and consistent effort, even (and more especially!) when there are no injury symptoms.

Most people take better care of their vehicles than they do their own bodies! If your brakes are squealing, common sense dictates that you drive cautiously and take the necessary steps to repair the problem and prevent further damage. Yet, when we experience aches and pains in our wrists, backs, etc., we frequently fail to apply the same wisdom on our own behalf! Instead of stretching, taking a micro-break, or self-evaluating our posture and movements, we usually persist until the task at hand is complete. Be warned though...doing so is at your own risk! Frequently disregarding what your body is trying to tell you may eventually lead to becoming injured.

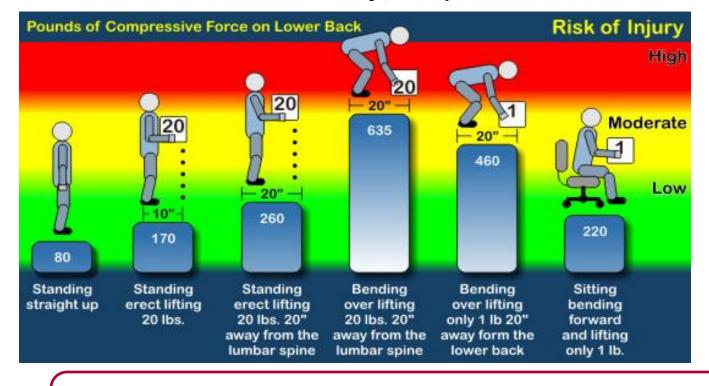
Unlike automobiles, we cannot just order/install replacement parts. While surgery may be an option for some conditions, many still suffer from chronic pain even after surgery. Chronic pain can affect daily living activities as well as increase the risk of becoming addicted to pain management therapies.

So, what's really at risk? You and your quality of life! Always remember that the actions you take today will undoubtedly affect and determine the quality of life that you live tomorrow!

**Spot-the-Hazard Challenge** Correctly identify at least 2 safety hazards from below to be entered into a \$25 gift card drawing



The image below illustrates why keeping loads carried close to the body and at waist level is important in order to reduce the compressive force exerted on the back. This is the science behind the adage to "lift with your legs, not with your back."



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