# Get Moving: Benefits of Movement at Work

*This article has been excerpted from Sit-Stand Workstations.*

There has been a lot of buzz in the media about the ills associated with sitting. They are even calling it "the new smoking". So how can we combat the detrimental effects of too much sitting? One important way is to incorporate more movement into your workday.

But first, let's learn more about sitting, standing and movement.

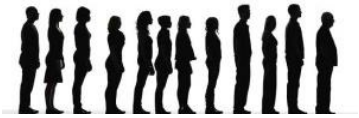
### *Sitting*

People are sitting now more than ever, and a great number of studies have linked sitting to all kinds of health problems. Short-term problems include changes in insulin function, triglyceride and cholesterol levels in the blood, leg swelling and discomfort. Long-term concerns include cardiovascular disease, diabetes, weight gain, various cancers, depression and death.

It seems there is good reason to be concerned. We need to be careful in interpreting this data, however, as these studies *link* sitting with these health problems, but that doesn't necessarily mean sitting *causes* them. More research is needed to tease out cause and effect.

So why do we sit then? There are clear advantages over standing: better visual and fine hand control (such as when mousing); lower energy consumption; easier on the joints of the lower limbs; and lower demands on the circulatory system, particularly the lower limbs. And let's face it—sitting is just less tiring than standing.

### *Standing*



So if sitting is bad for us, standing must be better, right? If only it were that simple.

Just as prolonged sitting causes problems, so does prolonged standing. Standing results in increased pooling of blood in the lower limb veins, swelling and discomfort of the legs and feet. It is more fatiguing to the whole body and people who stand a lot throughout the day have shown accelerated progression of cardiovascular disease, and increased risk of blood clots and varicose veins. Fine hand control and vision are also negatively impacted.

On the other hand, standing may result in lower intervertebral disc pressures. It also offers better reach characteristics, owing to the improved mobility of the hips compared to sitting.

Clearly both prolonged sitting and standing have negative repercussions in terms of health. Standing is not better than sitting. As it turns out, movement is what is important.

### *Just add movement*

Any potential benefits of sit-stand workstations stem from the increased potential for movement when doing office work. The human body is a beautifully designed instrument for movement, and long periods of not moving have negative impacts on circulation (particularly in the lower limbs, with the aforementioned increased risk of varicose veins and blood clots), blood chemistry, metabolism, soft tissue function, and intervertebral disc nutrition in our spines. This goes for stationary standing, as well as sitting.

There is also mounting evidence that interrupting our sedentary patterns typically seen in the office have positive health impacts. So it is not just the amount of sitting, per se, but also how long you remain in one position before moving that counts. Sit-stand workstations may be one way to interrupt those patterns by allowing users

opportunity to engage the large leg muscles when moving from sitting to standing, and vice versa, thereby breaking up those sedentary episodes.

***Steps to comfort***

Although prolonged sitting is often connected to musculoskeletal discomfort, a systematic literature review by Lis, Black, Korn and Nordin (2007) found that sitting on its own is not associated with back pain; not unless you add awkward postures (such as when a chair does not fit or is not properly adjusted) or whole body vibration (such as in drivers).

For this reason it is important to first apply tried-and-true basic ergonomics principles:

1) **Make sure your existing workstation is adjusted to fit.** This includes making sure the chair fits and that it is properly adjusted to you. To get set up, you need to do the online self-assessment and review the various resources on Office/Computer Ergonomics page on the POD.
2) **Incorporate more movement into your work day.** Both sitting and standing without moving result in venous pooling in the lower limbs, but periodically walking can equalize lower limb blood pressure in as few as 10 steps. Movement is also a requirement for intervertebral disc nutrition. It is recommended that people whose work does not force them to get up and move frequently be sure to get up and walk around a bit every 30 minutes. Some ways to help incorporate more walking at work include, but are not limited to, the following:

- Walk for a face-to-face conversation with a colleague rather than instant messaging or emailing;
- Stand up when talking on the phone;
- Drink small glasses of water (that force people to get up and refill frequently);
- Walk to a more distant bathroom;
- Take the stairs instead of the elevator;
- If you have a standing height counter available (or even a shelf or top of a bookcase), use it for certain tasks (e.g. reading, or paperwork), even for short periods;
- Remove the printers from private offices and print to a common printer, or send your documents to a more distant printer;
- Consider walking or standing meetings instead of sitting around a board room table, since research has shown meetings are such shorter and more collaborative and creative, while walking meetings see boosts in creativity with no effect on attention;
- Go for walks during breaks; and
- Get a pedometer to set goals and monitor your daily activity.

If you have more ideas on how to incorporate more movement into your day, please email them to us at ergo@phsa.ca!