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SCI Safety Tip: Tech Ergonomics--Laptops, Tablets, and Smartphones Sources: <u>http://www.blr.com</u> Date: September 17, 2012

Our guest author today is the founder of BIGGER PIES!, a professional services consulting firm in San Francisco, and regular contributor to BLR publications. In this article, originally printed in BLR's BLR's <u>OSHA</u> <u>Compliance Advisor</u>, Mr. Kaufman explains how to prevent MSDs when using new technologies.

Ergonomics, literally the "study of work," has been traced to Hippocrates in the 5th century. In the modern era, ergonomics has become focused on the health of the worker.

Current ergonomics has been studying the way that workers sit and work behind computer terminals. Much of the concern of the effort revolves around the need to avoid repetitive stress injuries on the job.

While most of the energy has been focused on "computer workstations," more technology users are opting for more mobile computer devices, laptops, tablets, and smartphones, instead of their desktop computers.

Just as desktop computers created ergonomic challenges, the new technologies addressed below present similar difficulties for employers when it comes to defending their workers from musculoskeletal work-related ailments.

Laptops

Stable use. The stable-use format is much like a traditional desktop setting up a laptop on a desk and using it like a desktop. Chair configuration and keyboard/screen height need to be considered. A docking station should be used to make the setup more closely resemble a workstation. That allows the user to attach a regular size, external keyboard (an adjustable keyboard tray or desk), a mouse, and even a full-size monitor.

Mobile use. The mobile user is a more complicated situation. *CIO* magazine writer Bill Snyder describes the struggle of using a laptop for serious work, "Many of us do all or most of our work on a laptop, and that means typing on an awkwardly positioned keyboard that is almost certainly flat and quite possibly not full-sized. Not using one (a real keyboard) is simply asking for trouble in the form of RSI or neck and back pain."

Unfortunately, that is not always possible. Users need to think about their position when working on laptops; there are many bad positions that people frequently use.

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When using a laptop, users should be sitting in a chair that allows for an upright or slightly reclined posture. They should center the laptop in front of them and keep their arms and elbows relaxed and close to their body with elbows bent at 90 degrees.

A possible solution for those on the move is using an empty 2- to 3-inch binder with the wider edge toward their knees to create an angle that will help keep their wrists straight and maximize the height of the screen. As with any computer user, even laptop users should incorporate minibreaks every 20 to 30 minutes to break up repetition and change the posture.

Tablets

While much tablet use is personal, there is a growing cadre of professionals who use them as their primary business tool. The heavy use of tablets creates real ergonomic challenges for users and employers.

"It's a new technology that we are quick to embrace, but we don't actually know what musculoskeletal problems might be attributed to it. Any activity where you hold your head forward in a flexed or bent position for a prolonged period of time is going to cause neck issues," says Dr. Jodi Oakman, a senior lecturer at La Trobe University's Centre for Ergonomics & Human Factors.

A solution to this heavy tablet use is creating a configuration, using an external keyboard and mouse, that makes the setup look more like a desktop. Oakman advises users to "move more, vary your positions as much as possible and, if you want to use the iPad as a typing device, use a separate keyboard."

The tablet overuse condition is even developing its own name, "iPad shoulder," after the ubiquitous Apple® version. Researchers at Harvard's School of Public Health believe tablet users are at risk of shoulder and neck pain.

"The problem is getting stuck in these awkward postures for a long period of time," commented study leader Jack Dennerlein. He recommends tablet users:

- Keep moving and changing their postures every few minutes;
- Use cases that let them keep the device propped on a table at about a 60- to 70- degree angle to prevent neck strain; *and*
- Set the font size larger so that they can read material in the appropriate neutral posture with back and neck in a straight vertical line.

Smartphones

As phones can do more, workers are increasingly spending more time working with them.

However, smartphone users are spending less time on the "phone" and more time using it as a visual interface.

A Wireless Intelligence survey found that in 1 month, using applications accounted for an average of 667 minutes of smartphone usage, messaging took 671 minutes of time, voice calling used up 531 minutes, and users browsed the Web for 422 minutes.

"The posture we assume while texting and e-mailing from mobile devices—using our thumbs to type, crunched over a tiny keyboard—is unnatural. That said, it only presents problems when we do it constantly without giving our body enough breaks," said Kermit Davis, PhD, associate professor of environmental health at the University of Cincinnati College of Medicine.

"When you combine this behavior with other hand-intensive activities, such as using a computer mouse or playing video games, the cumulative effects on the hands and forearms may cause problems." Davis recommends that users:

- Draft briefer messages
- Use word recognition tools to reduce keystrokes
- Keep the wrist relatively straight
- Avoid twisting wrists into odd angles

Safety Connections Inc.

SCI OSHA News: Hilda L. Solis on fatal occupational injuries in 2011 Source: <u>http://www.osha.gov</u> Date: September 20, 2012

WASHINGTON – Preliminary results from the Bureau of Labor Statistics' National Census of Fatal Occupational Injuries were released today. Findings show that the number of fatal work injuries in 2011 was slightly lower than final results from 2010. Last year, 4,609 workers died from work-related injuries, down from a final count of 4,690 in 2010. Secretary of Labor Hilda L. Solis issued the following statement in response to the census:

"Today's report shows a decline in the number of workplace fatalities. It's a step in the right direction, but more needs to be done. We will continue to collaborate with employers, workers, labor leaders, and safety and health professionals to ensure that every American who clocks in for a shift can make it home safe and sound at the end of the day.

"On average, 13 workers lose their lives each and every day, and that loss ripples throughout their communities. Children, parents, brothers, sisters and neighbors all bear an enormous burden when a loved one dies on the job.

"It's clear that we must maintain our commitment to ensuring our workplaces are safer and healthier for every American. This is a challenge that must be undertaken not just by the government but by the entire country. We know how to prevent these fatalities, and all employers must take the steps necessary to keep their workers safe.

"At the Labor Department, we take these challenges very seriously. Each and every one of us is committed to doing what we can so that every worker can return home at the end of the day in the same condition he or she left. The workers of our nation deserve nothing less."

HEALTHY BITES

Quick Tips for Healthy Living



MENTAL AND EMOTIONAL HEALTH

GENERAL

- Dread going to work every day? Time to update your résumé. A bad job is more harmful to your mental health than being unemployed
 - Being unemployed for a long time can take its toll on a person's mental health, as anyone who's been out of work knows. That's why taking the first position you're offered can be tempting — especially when the bills are piling up. But if it's not a job you want, you may want to hold out for something better. Research shows that taking a job that's beneath you is even worse for your emotional health than being unemployed. According to the study, demanding jobs that offer little control, support or



reward are bad for your well-being. Even though we all love to gripe about hating our jobs, research shows that we benefit from them, because they provide a sense of purpose and the opportunity for friendships. If your job is draining your emotional reserves, it may be time to update your résumé and call the headhunter.

What do you think? Send us an email at: <u>jlconnections@aol.com</u> See our bold new look @ http://www.safetyconnections.com/

In Loving Memory of Jessica Lehrke