

SOMETIMES IT'S NOT ONE BIG INJURY, BUT A THOUSAND LITTLE ONES, THAT CAN LAY YOU OUT AND STOP YOU WORKING

Ergonomic Indicators

"There was an employee last week who was on a creeper, welding underneath a large machine, and he had to continually hold his head up in one position to see," says Jon Pel, Senior Environment Health and Safety Advisor for Finning (Canada). "He ended up pinching a couple of nerves in his neck." That welder isn't alone. It turns out that soft tissue injuries are on the rise, not only because of repetitive motion, but because, like the welder, workers might be maintaining static positions for long periods.

Ergonomics involves fitting the tasks, systems and workspace of a particular job to the worker and not the other way around, and it's becoming a major consideration of workplace safety. But when it comes to incorrect work design and the often-resulting injuries, what may be surprising is that some of the culprits are the tools we most commonly use in the workplace, and how we use them.

Most of the soft tissue injuries that Finning employees report are to the upper arm, shoulder and back. And there are almost as many reasons behind them as there are injuries. Problems can stem from the awkward position of a tech's arm, for example, when he reaches over a large engine to tighten down cylinder heads, overextending his arm and straining his shoulder. Other times, a tech uses heavy tools in hard-to-reach places.

"Or the wrist might be bent and they're holding on to a five- or 10-pound impact wrench for a long period of time," Pel says. "So the vibrations are causing injury to the blood vessels and the force applied is injuring ligaments and tendons." But problems aren't limited to the shop floor.

"One of the biggest problems we see is office chairs" says Mike Harnett, President of the Association of Canadian Ergonomists

(AB/NWT). "You can have a \$1,000 dollar office chair and all people know is how to move it up or down. As a result, they could be sitting improperly and that causes grief and pain." Harnett has applied her more than 20 years of knowledge to the benefit of a wide variety of industries. So when Jon Pel needed assistance launching a new program entitled the Finning Ergonomic Initiative, Harnett's company, workSMART, was a logical choice.

"The results of annual reviews of our safety statistics pointed out ergonomics-related injuries as a growing problem," says Pel.



"It was widespread among our shop employees. Now, obviously we have an awful lot of shop mechanics, but we also have welders, field mechanics, warehouse personnel and office employees, too."

In the office, chair-related causes of injury are numerous. They might include employees sitting at the keyboard in such a way that their wrists aren't in a neutral position, or bending their arms at less than a 90-degree angle. Or they may be overtaxing a shoulder by extending the mouse arm too far. Size of the chair is often a factor, especially for women. If it's too big, the arm rests are likely too far apart and a worker will lean to one side, straining his or her back. Even with the perfect chair, position and posture, "if you just sit there for eight hours a day, you're going to get hurt,"

says Harnett. "Our bodies are designed for movement."

The red flag rose when Pel and Harnett observed that soft tissue injuries accounted for around 50% of all injuries. Sometimes referred to as "strain and sprain" injuries, they come from a variety of incidents including repetitive use, awkward positioning and sudden movement. It's important to note here that the concept of "soft tissue injuries" or "musculoskeletal injuries" is slowly replacing the more commonly recognized term "repetitive strain injuries." There's good reason for that. "Repetitive strain" has been kind of a misnomer because there are a lot of injuries occurring from very static positions," says Harnett.

Workplace assessments in hand, Pel and Harnett are now declaring war on Finning's soft tissue injuries. Education is the first part of the process. They teach that even if pain ceases quickly when you finish a task, you may be at stage one of a soft tissue injury. They show how to do preventative stretches to counter the onset. And they pay attention to the work environment and the tools themselves.

Revamped tools include hydraulic torque wrenches and pin presses to slide-sledgehammers, in which the head of a sledgehammer slides down a shaft and takes the impact off the user. There is nothing that modern health and safety personnel are unwilling to rethink. But few remedies, says Harnett, are as important as the micro-break – giving your body a rest accompanied by stretching opposite to the motions you are making. In other words, stop what you are doing periodically.

"Some people, God bless them, have a work ethic that won't let them stop," says Harnett. "But giving your body the breaks it needs will help keep you on the job." ■

Visit the Canadian Centre for Occupational Health and Safety website at www.ccohs.ca or workSMART www.worksmart.ca