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## Adjustable surfaces curb unsafe ups and downs

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Whether an employee works at a computer monitor, a conveyor belt or a laboratory bench, proper ergonomics are essential for safety and comfort.

The goal, always, is to "get the employee to work in a neutral posture," says Diane Stinson, principal consultant for HealthWorks Ergonomics & Injury Prevention Consultants in Calgary. And work surface height plays an important part in achieving that objective.

"The general rule of thumb on the height of surfaces is, the finer the work, the higher the surface," Stinson says.

Consider that jewellers need surfaces that keep hands above their elbows so they don't need to hunch over their work. Elbow position for many office workers, however, is likely best when it is in line with a keyboard to ensure that wrists remain flat while typing. And paperwork demands yet another change in position, so that a worker's elbows are a couple of inches below the work surface.

Adjustable surfaces can also prove useful if a chair or keyboard tray, for example, does not provide a range that suits a worker with less common proportions. It takes only a push of a button or a pull of a lever to bring an adjustable work surface into the range that fits either a very

tall or very short person. Stinson says the option is particularly useful when work stations are shared by several people.

But adjustable work surfaces are for more than offices; they may be a safe bet wherever something varies in height or weight.

For instance, in a commercial laundry operation, an employee may fill one bin with clean towels and remove soiled items from another. To avoid repeated bending that may set the stage for a future back injury, a spring-loaded platform, which lowers when a bin is heavy and rises when it is light, can ensure workers do not experience undue strain.

Adjustable work stations are also a more comfortable option for people with physical limitations, says Vancouver ergonomist Dave Coates, president of ErgoRisk. "People who have more miles on their frame, or those who've had a car accident or two in their 50 years of life, their [bodies are] going to appreciate the ability to stand," Coates suggests.

The opportunity to stand would likely be welcomed by other employees, too. "The body doesn't sit as a natural position as well as it stands at work," Coates points out.

Call centres, 9-1-1 dispatch centres or any workplaces that require remaining near a work station can make it tough for workers to inject a little movement into their days. Raising and lowering their work surfaces can help.

Sitting for long periods of time causes waste products to build up in muscles (static loading), contributing to the development of repetitive stress and other injuries, Stinson explains. But standing (preferably on anti-fatigue mats) for no longer than a half-hour should be the rule.

Then there's the third option: walking. Three years ago, Details, a company in Grand Rapids, Michigan that specializes in ergonomic furniture, introduced a sitting-to-standing work station with a treadmill.

The idea is that people find their natural walking pace "so you can get lost in your work," says Bud Klipa, the company's general manager. It's not about sweating (the device moves at no more than about three kilometres per hour) but it does add physical activity to a worker's day.

"We just assume the seated position is what we're going to be in. It's really about getting people out of that mode of thinking," Klipa says. "What we're trying to encourage is that you need to be changing your postures... and looking for ways to integrate more movement into your day."

Caitlin Crawshaw is a writer in Edmonton.