Healthy computing

Dr Paul Martiquet, Medical Health Officer

With so many of us spending extended periods of time in front of computers both at work and at home, we should be paying attention to preventing the pain and even injuries that can accompany less than ideal positioning and habits. Good ergonomics can make the difference between a pleasant and productive work day and one that sends you home in pain, or worse.

Ergonomics is designing the way we work to reduce strain and injury to our bodies. It focuses on how we interact with equipment, furniture, environment, job processes and tasks. When not well implemented, a computer work station can lead to serious ergonomic concerns from muscular discomfort to repetitive strain, carpal tunnel and more.

The default position for muscles (might as well use the terminology of computing) is at rest. This allows blood to flow freely distributing nutrients to cells and carrying away waste. As muscles tense or tighten, blood flow is restricted. Do this too long and muscles will stiffen and cause pain. It is not normal for muscles to stay contracted for extended periods, but this is the exact situation of many work situations — at a desk or workstation, even at home on our computers (or video game console for that matter).

The key to avoiding injury and pain is to lessen the time that muscles are under tension. The simplest suggestion is to regularly move around, stretch, look away and take breaks. A rule of thumb you might consider is the '20-20-20 Rule.' That is, take a 20 second break every 20 minutes and focus your eyes at least 20 feet away. Simple rule, just have to remember to do it.

The physical work station itself is a critical element for ensuring healthy computing. First, your seating position should be comfortable and ergonomically sound. That means having a chair that is properly adjusted for your physique and that provides good back support. Your feet should be flat on the floor (or on a foot rest). Your upper arms should drop straight down and forearms be horizontal to the floor.

Your monitor needs to be placed at eye level: your eyes should be level with the top of the monitor, itself about an arm's length away. It should also be centered in front of you so that you do not have to look to the side to view the screen. This is less of a problem if you only occasionally use the computer, but for regular use, right in the center is best. These few minor adjustments will significantly reduce neck and eye strain.

Your keyboard and mouse should be very close together to minimize reaching, and they should be on the same level for the same reason. And, when typing or mousing, do remember that these are not force-feedback tools — you do not need to hit the keys hard. There is no advantage to hard punctuation!!!

Getting more information about setting up your work station is easy with umpteen online (what did you expect?) sites that can help. You can start at Microsoft (search for 'healthy computing'), or Google the same keywords. One particularly extensive site is healthycomputing.com. Admittedly, they are a commercial site that offers related training and materials, but their online guides are exceptional in depth and breadth.

Most of all, healthy computing demands that you get off your duff regularly. Stretch, look around, and even chat with the people around you. You will work that much better when you get back to it.

*The 20-20-20 Rule:
Take a 20 second break every 20 minutes and focus your eyes at least 20 feet away.*

Dr Paul Martiquet is the Medical Health Officer for the Coast Garibaldi Region including Powell River, the Sunshine Coast, Sea-to-Sky, Bella Bella and Bella Coola.