

# Straining at the screen

The computer monitor has become a real site for sore eyes for millions of Canadian workers. Long hours at the screen can spell aching eyes, blurred vision and headaches, experts say. In fact, eyestrain surpasses even wrist pain as the top physical complaint among heavy computer users.

## Straining at the Screen

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Photodisc file

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SURVEYS SHOW that upwards of 70 percent of computer workers suffer from vision woes, according to the American Optometric Association (AOA), which has dubbed the condition **Computer Vision Syndrome**.

“This problem has come up as large numbers of people have become chained to their desks,” says Chris Barry, an optometrist in Bellevue, Wash., who specializes in computer vision syndrome, or CVS. “It’s an unnatural task to stare at a box for hours on end.”

Burning eyes, blurred vision and headaches are among the most common symptoms of CVS, which is also characterized by eyestrain, dry eyes, slowness in changing focus, contact-lens discomfort, neck aches and back pain.

But there are some simple steps people can take to give their eyes a break, experts say. Solutions range from rearranging a workstation to getting a pair of special glasses that make the images on a computer screen clearer and easier to see.

### RSI OF THE EYES

James Sheedy, a clinical professor of optometry at the University of California, Berkeley, characterizes CVS as a type of repetitive stress injury. Its symptoms result from repeatedly stressing the visual system, he says.

When peering into the computer screen, the eye’s focusing muscle is at constant tension. Like any muscle, it feels sore when overtaxed. And when someone spends a lot of time looking at something close, the eye muscle can get stuck on the near-focus setting and have difficulty relaxing, leaving the person temporar-

ily nearsighted, a condition called accommodative spasm that can last seconds or hours. This is why after looking at a monitor all day, some computer workers complain that their distance vision is blurred when they attempt to drive home, Sheedy explains.

While people can experience the same phenomenon after any long stretch of near work such as reading a novel or tackling a mountain of paperwork, a computer screen is a much more challenging focusing target than a printed page, experts say.

The letters on the screen are not as clearly defined as on a printed page. Take a magnifying glass to your monitor and you’ll see the letters, each made up of pinpoint sources of light, have no sharp edges. Barry notes, however, that liquid crystal display (LCD) monitors, like those found on laptop computers, are easier on the eyes because they display sharper images.

Additionally, most monitors flicker and office lights often cause reflections on computer screens, making them harder to read.

And studies have shown that when people are working on a computer, their rate of blinking goes down by two-thirds, which can result in dry, stinging eyes. This is especially a problem for contact-lens wearers, who already are at risk for dry eyes, so doctors recommend they use lubrication drops.

### PERMANENT DAMAGE?

Most doctors agree that too much screen time can result in temporary aching eyes. But while some contend that’s the full extent of the problem, others sug-



suggest there may be more serious consequences, such as myopia — or nearsightedness — that may go beyond a couple hours of accommodative spasm. Though there is no hard evidence that computers actually cause long-term damage to the lens or eye muscles, some research suggests that doing a lot of close work can contribute to myopia in people who are genetically predisposed, says Dr. Harry Knopf, an associate professor of clinical ophthalmology at Washington University School of Medicine in St. Louis.

For example, it is well known among eye care professionals that when people are in school they need more myopia correction than when they're out of school, he notes. But Dr. Anne Summers, a spokesperson for the American Academy of Ophthalmology, dismisses the notion that computer use causes lasting harm.

"It absolutely won't cause eye disease or serious problems, it can only make eyes tired," she says. Experts say more research needs to be done to determine whether the short-term effect can cause long-term vision problems.

### **ERGONOMIC COMPLAINTS**

**Computer vision syndrome** also includes a variety of ergonomic complaints related to wearing incorrect glasses or using an improper workstation, according to Knopf. Some people cock their head at an odd angle because their glasses are not designed for looking at a computer. For example, people wearing traditional bifocals will often crane their neck back to peer through the reading prescription in the bottom of the lens. Or someone who needs vision correction may need to bend toward the screen.

**START THE DAY** off with five minutes of simple stretching exercises before beginning work.

It's basically to get your body systems warmed up and supple — just as you would if you were getting ready for a sporting event. The key is to start with a simple body stretch, like some jumping jacks or stretching the arms up over head and down by the sides.

Then focus in on specific areas with exercises like shoulder rolls, small arm circles and gentle wrist flexes.

Throughout the day, take at least one more stretch break. The basic concept is that your muscles tend to get tight and cold, and you want to loosen them up.

There are several exercises you can do right at your desk to stretch out your neck, arms, fingers and other areas. Resist the urge to shake out your hands, since sharp, whip-like actions can be unsafe.

In between stretch breaks, be sure to get up from your desk at least once an hour and walk around.

Take five minutes and do something that's not tied to the computer, such as picking up your mail, making copies, checking the fax, getting a drink or talking rather than e-mailing a colleague — Something that makes you get out of your static, sitting posture.

The biggest mistake is when people get focused on a project and just burn on it until it's done.

As a reminder, consider using an alarm or software program that alerts you when it's time to rest.

People who keep their eyes glued to the screen for extended periods without appropriate breaks may be at increased risk for repetitive stress injuries.

## **Ergo-Robics**

Office work may not exactly be strenuous but it can take a toll on the body nonetheless.

Typing for long hours can stress the hands and arms, and sitting in a static posture for extended periods may lead to cramped muscles and pinched nerves.



That's why many occupational health professionals advise warming up before work and performing stretches and exercises throughout the day.



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