

Computer Vision Syndrome



What is Computer Vision Syndrome?

Computer Vision Syndrome (CVS) describes a group of eye and vision-related problems that result from prolonged computer use. At Vista Eye Care in Thornton, Colorado, our eye doctors are good at identifying the causes of CVS and helping our patients get back to seeing and working comfortably. Many individuals experience eye discomfort and vision problems when viewing a computer screen for extended periods.

What are the common symptoms of CVS?

Symptoms include eyestrain, headaches, blurred vision at near and far, dry eyes, neck pain, and shoulder pain.

What are contributing factors to CVS?

Poor lighting, glare, improper viewing distances, poor seating posture, and uncorrected vision all contribute to CVS. Living along the Front Range like we do, we have particularly dry air which can aggravate dry eyes. If you live in Thornton, Brighton, Westminster, or Denver, you're predisposed to having dry eyes just based on your altitude alone.

Why is viewing a computer different than viewing other things?

Viewing a computer screen often makes the eyes work harder. As a result, the unique characteristics and high visual demands of computer-viewing make many patients susceptible to the development of vision-related symptoms. Uncorrected vision problems can increase the severity of symptoms. Viewing a computer screen is different than reading a printed page.

The letters on the computer screen may not be as precise or sharply defined, the level of contrast of the letters to the background is reduced, and the presence of glare and reflections on the screen may make viewing difficult. Computer users tend to blink considerably less while viewing computer screens which can lead to dry eye issues.

The presence of even minor vision problems can often significantly affect comfort and performance at a computer. Uncorrected or under-corrected vision problems can be major contributing factors to computer-related eyestrain. People who have an eyeglass or contact lens prescription may find it's not suitable for the specific viewing distances of their computer screen. Some people tilt their heads at odd angles because their glasses aren't designed for looking at a computer, or they bend toward the screen in order to see it clearly. Their postures can result in muscle spasms or pain in the neck, shoulder, or back.

How is CVS diagnosed?

CVS can be diagnosed at Vista Eye Care's comprehensive eye examination. Special testing will include:

- **Patient history** – Determines any symptoms you are experiencing and the presence of any general health problems, medications taken, or environmental factors that may be contributing to the symptoms related to computer use.
- **Visual acuity** – Our optometrists will carefully measure your acuity to assess how your vision may be affected.
- **Refraction** – Determine the appropriate lens power needed to compensate for any refractive errors (nearsightedness, farsightedness, or astigmatism).
- **Eye Teaming** – In order to obtain a clear, single image of what is being viewed, the eyes must effectively change focus, move, and work in unison. This testing will look for problems that keep the eyes from focusing effectively or make it difficult to use both eyes together.

How is CVS treated?

CVS can usually be alleviated by obtaining regular eye care, wearing the appropriate eyewear, and making changes to how you view your computer screen.

What kind of lenses can I wear to relieve my symptoms?

In some cases, individuals who do not require the use of eyeglasses for other daily activities may benefit from glasses prescribed specifically for computer use. In addition, persons already wearing glasses may find that their current prescription does not provide optimal vision for viewing a computer. As the number of people using computers on a daily basis increases, the number of people suffering from CVS also increases. The eye care industry has responded to this challenge and developed a series of lenses call "office lenses" that make viewing a computer screen much easier on your eyes. The idea is to make a spectacle lens do all the focusing for your eyes, allowing your eyes to remain relaxed. Office lenses can relieve eye strain and headaches, making your work day much more comfortable. An antireflective coating on your lenses can reduce the amount of screen glare you experience, and is essential for patients who spend long hours in front of a computer.

How should I view my computer to relieve my symptoms?

Some important factors in preventing or reducing the symptoms of CVS have to do with the computer and how it is used. This includes lighting conditions, chair comfort, location of reference materials, position of the monitor, and the use of rest breaks. Here are some tips to get your workplace optimized for your comfort:

- **Location of computer screen** – Most people find it more comfortable to view a computer when the eyes are looking slightly downward. Optimally, the computer screen should be 15 to 20 degrees below eye level (about 4 or 5 inches) as measured from the center of the screen, and 20 to 28 inches from the eyes.
- **Reference materials** – These materials should be located above the keyboard and below the monitor. If this is not possible, a document holder can be used beside the monitor. The goal is to position the documents so you do not need to move your head to look from the document to the screen.
- **Lighting** – Position the computer screen to avoid glare, particularly from overhead lighting or windows. Use blinds or drapes on windows and replace the light bulbs in desk lamps with bulbs of lower wattage.
- **Anti-glare screens** – If there is no way to minimize glare from light sources, consider using a screen glare filter. These filters decrease the amount of light reflected from the screen.
- **Seating position** – Chairs should be comfortably padded and conform to the body. Chair height should be adjusted so your feet rest flat on the floor. If your chair has arms, they should be adjusted to provide arm support while you are typing. Your wrists shouldn't rest on the keyboard when typing.
- **Rest breaks** – To prevent eyestrain, try to rest your eyes when using the computer for long periods. Rest your eyes for 15 minutes after two hours of continuous computer use. Also, for every 20 minutes of computer viewing, look into the distance for 20 seconds to allow your eyes a chance to refocus.

Please call our office today at **(303) 450-2020** to schedule a comprehensive exam to evaluate your eyes for CVS

