



DENNY EYE & LASER CENTER

DIGITAL EYE STRAIN SOLUTIONS DURING COVID

Today, the reliance on digital technology is skyrocketing. Many of us wonder how this new reality will affect our eyes. The use of digital devices and prolonged focus up close has long been known to cause eye issues. In fact, Digital Eye Strain, also known as Computer Vision Syndrome, is on the rise and has been recognized as an eye health problem for several decades.

The most common symptoms of Computer Vision Syndrome include headache, blurred vision, dry eyes, eye strain and pain in the neck and shoulders. Thankfully, these symptoms are usually temporary and will go away once the stimulus is removed. However, many of us need to use technology for work or as a distraction.

Specific symptoms may vary, depending on the cause of the strain. For example, increased concentration can decrease blinking rate, causing eye surface dryness. The muscles in and around the eyes can fatigue as well, resulting in temporary blurry vision. Neck and shoulder

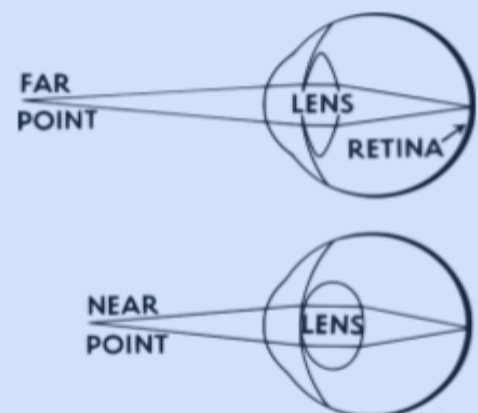
pain can be the result of improper focus distance or inappropriate glasses type.

The focus reflex, or accommodation, is the primary reason for eye strain for those of us younger than 40 years old. Sustained focus is a repetitive task, similar to holding your arm in a fixed position for a long time. The accommodation system can spasm or become stiff after several hours of use. A simple solution is to give your visual system a break. At Denny Eye and Laser Center, we recommend the "20/20" rule. Every 20 minutes, look 20 feet away for at least 20 seconds. It is good practice to schedule regular breaks away from close work to stretch your back and neck and rest your eyes.

For those of us over 60 years old, accommodation is not a major factor because the flexibility of the lens decreases with age. This is reflected in glasses prescriptions when extra numbers are "added" to the bottom of our prescription, which your doctor calls the ADD. Because the flexibility of the lens is reduced, we rely on glasses to focus at different distances. This means that you might need several pairs of glasses.

What is Accommodation?

The eye is an optical system, like a camera. The front part of the eye is purposefully clear so that it can focus the light entering the eye. The structures that focus light are called the cornea and the lens. The lens in particular is nearly five times more powerful than the average glasses prescription. When looking at objects at different distances, optical systems will manipulate the lens structure in order to maintain clear focus. In a camera, the lens accomplishes this by changing positions - moving forward or backwards. In our eyes, the lens changes shape - becoming thicker or thinner. This process is called accommodation since our eyes are "accommodating" our need to look at objects at different distances. Accommodation affects our glasses prescriptions and can influence how our eyes work while reading or looking at the computer.





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Let's review how to find the comfortable focus point of your glasses using the *trombone test*. This is called the *trombone test* because it involves moving reading material closer and farther from your eyes, like a trombone player moves a slider to make different sounds.

1. What type of glasses do you have?
 - a. For single vision glasses look through the center of the lenses.
 - b. For multifocal glasses, move your gaze into the reading portion of your glasses at the bottom.
2. Use a magazine or small print book and move it closer to you until it becomes blurry. The point right before it becomes blurry is the *near point* of your focus.
3. Move the magazine or small print book farther from you until it also becomes blurry. The point right before it becomes blurry is the *far point* of your focus.

The most comfortable focus point will be in the middle, between the near and far points. If you have multifocal or progressive glasses and find you are leaning your head far back, it is worthwhile to consider another pair of glasses that have wider optical zones to ease head and neck strain.

Digital Eye Strain, or Computer Vision Syndrome, is very common, especially with our increasing reliance on technology. Symptoms can be alleviated by addressing the causes of strain. We hope these suggestions make your home stays more comfortable. Use the overview graphic to check off all your possible areas of eye strain. We wish you health and hope to see you back at Denny Eye and Laser Center for your eye care needs soon.

See you then!

Joy Ohara, OD
Primary Care Optometrist

