Nethra Arogyam

Computer Vision Syndrome

EYE CARE WITH CARE

Computer Vision Syndrome

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What is Computer vision syndrome and how to reduce the effects?
As per research studies 50% to 90% of people working with computers have computer vision symptoms.

Computer vision syndrome (CVS) is an eye and vision-related complications that are caused by long-term use of digital devices such as computers, tablets, e-readers and cell phones. In recent times more number of people, of all age, are using digital devices and unfortunately the time spent on digital screens has drastically increased all over the world. It can effect at any age.

Most of them face uneasiness while using digital screens for long period of time. Discomfort and vision problems increases with increase of screen time. **Research shows that 50% to 90% of people working with computers have some of**
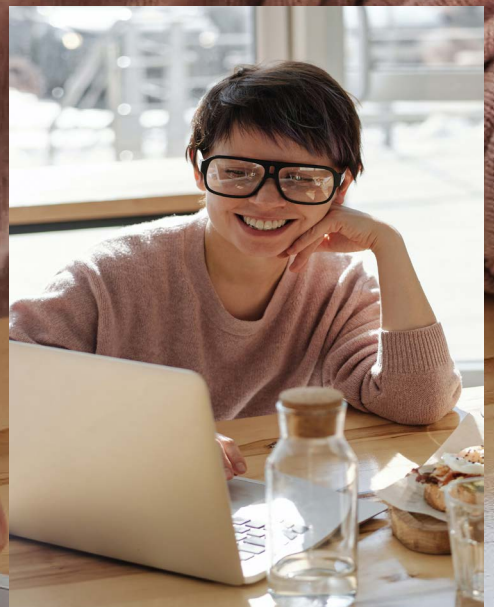
the following CVS:

- Eyestrain & eye fatigue
- Blurred vision and double vision
- Dry eyes
- Neck, back and shoulder pain
- Headaches

CVS elevates due to poor lighting, poor seating posture, constant refocusing, improper distance, inadequate blinking, glare on the digital screen, uncorrected vision problems, or a blend of the above. Digital screen time is expressively higher in all age groups. Millennials, Gen Z, and Gen Alpha in today's world have no options than using digital devices for long hours. Kids use digital devices for class and also play video games for long hours, work from home, all this can put a real strain to the eyes.

**While working on the digital screen, eyes incline to focus and refocus continuously.** The inner muscles of the eyes have to react to moving images on the screen, so that the brain can process it easily. So eye muscles need more efforts. Digital screen increases - contrast, flicker, and glare which increases **eye strain and fatigue.**

Uncorrected vision problems such as **far sightedness and astigmatism** can lead to the visual problems while using a computer or digital screen device. Not wearing prescribed spectacles, or wearing wrong spectacles for computer use may increase complications. Other problems like **dry eye disease and near-sightedness may also increase.**

Important tips for computer users

- **Wear glasses**, with Anti-Reflection Coating while working at the computer, even if one normally doesn't need corrective vision.
- **Remind yourself to blink** more often while working at the computer screen to prevent dryness of the eyes.
- **Take 15 or 20 second rest breaks every 15 minutes.** Use this time to just look around the room.
- **Keep your computer screen free of dust.**
- **Black characters on a white background are usually the best.** Avoid dark backgrounds. The size of the text should be three times the size of the smallest text you can read.
- **Make sure your seat is comfortable.** A comfortable chair that conforms to the body encourages good posture and will help to avoid neck and

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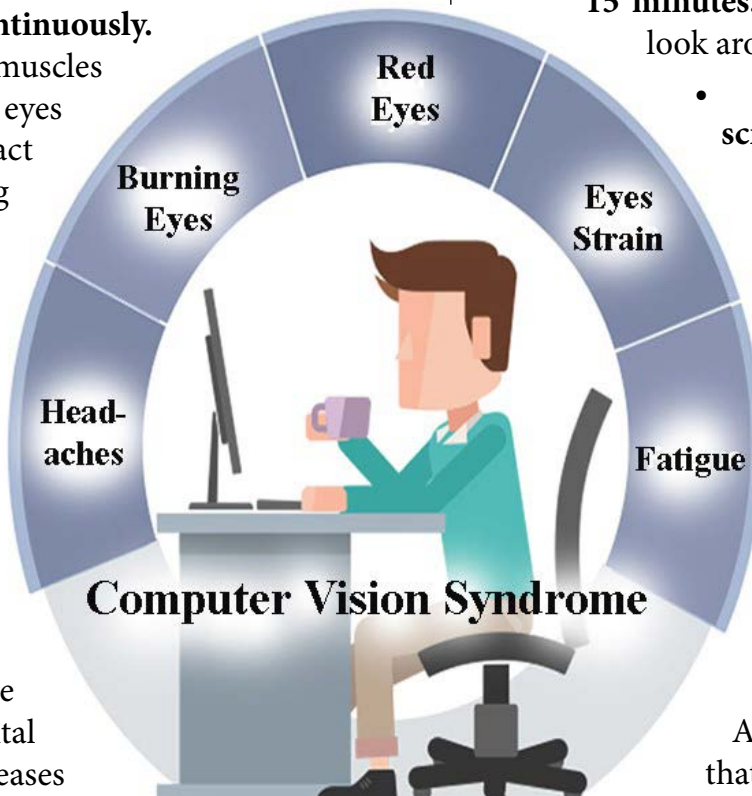
shoulder strain commonly associated with computer vision syndrome.

- **Regular spectacles or contact lenses may not be adequate for computer work.** Special lens designs with tints or coatings that reduce the effects of extended computer viewing may help to maximize visual abilities and comfort.

Did you know?

- 50% work force use computer
- 100 million workers suffer from CVS
- More than 2hrs/day of use predisposes to CVS
- Nearly 88% of all computer users will develop CVS at some time in their lives (National Institute of Occupational Safety and Health (NIOSH), 1996).

Advantages of anti-glare coating (arc)

- Eliminate reflections almost entirely.
- Reduce eye fatigue in office environment and under artificial light.
- Cuts the glare from PC Monitor.

Take home messages

- ARC coated Glasses
- Computer glasses - intermediate vision.
- Examine eyes before starting to use computer and once a year.
- Avoid bright overhead lighting that directly falls on your face.
- Use Blinds or curtains to reduce reflection on screen. Ratio of surrounding light to monitor light should be 3:1