HKSH Ophthalmology Centre

Happy Valley

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Service Hours

Monday to Friday: 9:00 am – 5:00 pm Saturday: 9:00 am – 1:00 pm Closed on Sundays and Public Holidays Consultation by Appointment

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For enquiries and appointments, please contact us



Digital Devices and Eye Care





"Everyone is very concerned that it may be harmful to the eye, and it's a valid concern, but there's no evidence it may be causing any irreversible damage." — American Academy of Ophthalmology

There is a common misconception that looking at a computer, smartphone or other digital screen for long periods of time will permanently damage your eyes. It's simply not true.

The amount of radiation coming from a computer has never been demonstrated to cause any eye disease. A study reprinted by the National Library of Medicine found no measurable UVA or UVB radiation from computer monitors. However, you may feel eye discomfort from staring at your screen too long.

Digital-related Eye Strain

Staring at digital screens for long hours can cause eye strain, and decreased blinking associated with computer use can cause dry eyes. If you spend hours a day using digital devices, you might notice your vision blurs, and your eyes feel achy and tired. You may also find your eyes become dry, and will tear and sting.

This eye strain is no different from the symptoms you may have when reading, writing or doing "close work" like sewing for long stretches of time. These effects are caused by people using their screens but not by anything emitted from the screens. Computer use associated with eye symptoms are usually only temporary and lessen after you stop using the computer.

Advice

- Sit about 25 inches (arm's length) from the computer screen. Position the screen so you are gazing slightly downward
- Adjust the brightness and contrast of the screen to reduce eye strain
- Reduce screen glare by using a matte screen filter if needed
- Take regular breaks using the "20-20-20" rule: every 20 minutes, shift your eyes to look an object at least 20 feet away for at least 20 seconds

- Humans normally blink about 15 times in one minute. However, studies show that we only blink about 5 to 7 times in a minute while using computers and other digital screen devices. Blinking is the eye's way of getting the moisture it needs on its surface. Make a conscious effect to blink as often as possible. This keeps the surface of your eyes from drying out
- · When your eyes feel dry, use artificial tears to refresh them
- If you wear contact lenses, give your eyes a break by wearing your glasses
- If you work on a computer for many hours at a time, you might find that using computer eyeglasses reduce eye strain. These prescription glasses allow you to focus your eyes specifically at computer screen distance (intermediate distance, which is about 20 26 inches away from your face). Some of these glasses have multifocal lenses to help you quickly shift your focus between close, intermediate and far distances
- For children, set a timer to remind them how often to look into the distance



- A) Adjustable back rest
- B) Adjustable seat height
- C) Firm foot rest if required
- D) Adequate knee clearance
- E) Wrist rest if required
- F) Adjustable document holder
- G) Wrist kept straight or at most slightly inclined
- H) Screen support adjustable for rotation and tilting
- I) Adjustable table height preferable
- J) Rounded or scrolled edge seat pad

Blue Light

Blue light enters the eye, both naturally in sunlight and from electronic screens. Eye glasses that claim to filter blue light from computers, smartphones and tablets are becoming increasingly popular. However, blue light from electronic screens does not cause blindness.

Studies that expose specific chemicals present in the eye to blue light cannot be turned into recommendations for real people in the real world. Live retinal cells have proteins that can protect them from these possible toxic effects.

On the other hand, there is evidence that blue light can interfere with humans' circadian rhythms, making us harder to fall asleep. Thus it is a good idea to limit screen time before bed or to filter out blue light from screens before bedtime.