



COVID-19 and the blue screen challenge

WESLEY GIBBINGS

Pandemic conditions have served to overturn several measures recommended by physicians and other medical professionals to preserve good health and general wellness.

Among such advice are well-founded warnings against overexposure to the screens of computers and handheld digital devices such as tablets and mobile phones.

The reliance on screens during home-schooling has, for instance, now led psychologists and other child development experts to warn about “mental health drawbacks” that add to harmful physical impacts including those associated with eye care.

Home-based working adults made to spend longer than usual hours on computers and tablets also face the prospect of a variety of eye and other health complaints. “Screen fatigue” is now a much more frequent complaint.

Executive member of the T&T Optometrists Association (TTOA), Stephanie Marchack believes there are eye-care risks to all users of digital devices that cannot be ignored but can be addressed through a few simple measures.

“There has been a significant increase in the use of digital devices since the start of the pandemic as persons are working from home, have online school and use their phones and devices to stay in touch with loved ones and keep up to date with the latest news,” she told T&T Guardian.

This, she says, poses several “visual challenges” including Computer Vision Syndrome (CVS) - a condition increasingly being observed among eye patients.

Symptoms of CVS include eyestrain when “eyes might feel as though they’re pulling”, dry eyes detected when “eyes may feel gritty and water more than usual and vision may be blurred”, headaches on the forehead or above the eyes and generally tired eyes.

Marchack and her TTOA colleagues all agree that several simple behavioural changes can make a significant difference when it comes to minimising such risks.

For instance, screen users should follow what eye care specialists call “The 20-20-20 Rule.”

“Every 20 minutes look at something 20 feet away, for 20 seconds,” Marchack advises. “This relaxes the eye muscles in between long stretches of close work.”

She also recommends an increase in users’ “blink rate” in order to keep eyes moist. “Re-wetting drops can also be used during screen time,” she advises. “Ask your optometrist which drops would be best for you.”

It is recommended that computer users ensure they are at least 50 centimetres (about the length from fingertip to elbow in adults) away from computer screens and about 40 centimetres from phones and tablets.



T&T Optometrists Association executive member Stephanie Marchack. PICTURE COURTESY TTOA

It’s also good advice, she says to “reduce the brightness of the screen or try switching to night-mode.” There are also matte screen protectors available which may help reduce glare.

Marchack is however ambivalent on the growing use of “computer glasses” to help address CVS.

“Computer glasses claim to block blue light which in turn allows the user to have a better night’s sleep, reduces digital eye strain and helps to prevent eye disease,” she says. “(But) the amount of blue light a person is exposed to is important for their bodies’ natural sleep/wake cycle.”

“Increased amounts of blue light (however) reduce the release of melatonin - a hormone that induces sleep.”

“Simply stopping all device use one hour before bedtime and setting devices to night mode can assist with better sleep patterns,” she advises.

It is also recommended that screen users “always make sure to have good general lighting in your study or work area. Don’t let the light coming from the screen be the only light source. The screen can also be angled to avoid glare from overhead lighting or windows.”

The TTOA executive suggests that digital eye strain is most often caused by “how we use our devices, not by the blue light that comes from them.”

According to Marchack, plano lenses (i.e. lenses without a prescription) with a blue light filter “tend to act more as a placebo or only as a short-term solution.”

“The amount of blue light that comes from digital screens is quite small and the clinical evidence to date does not indicate that it will cause any harm to the eyes,” she says.

“In short,” Marchack advises, “the main way to resolve symptoms caused by increased use



Homework time for young Liam.

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of digital devices is to modify our habits while on the devices.”

The standing recommendation if problems are being experienced is to “speak with your optometrist if you have any concerns and remember that any trusted eyecare professional will prescribe based on what is in the best interest of their patient.”

Marchack is an optometrist in private practice with experience in routine eyecare, as well as screening and counselling for both cataracts and refractive surgery. She studied at the University of Manchester, and practised in the UK for two years before returning to T&T in 2013. Contact the Association at ttoptoma@gmail.com for more information.



The home-schooling screen is now the norm for Dejenaye.