Do you know about the risks of digital eye strain and the dangers of blue light?

We live in exciting times with an ever increasing access to a world of technology never before experienced. Everyday our reliance on 'smart' devices grows and smart phones, tablets, computers and TVs and even smart watches have become an indispensible part of all aspects of our lives from work, to learning, socialising and play.

But all that screen time can be hard on our eyes, and research is flagging the growing concern with digital eye strain and the negative effects of blue-violet light.

Optometrists are seeing a significant increase in patients presenting with symptoms of sore, tired, gritty eyes, headaches and intermittent blurred vision after prolonged digital device use.

Our eyes were never meant to look at millions of glowing pixels all day.

On the bright side, there's no need to immediately unplug your devices and live a digital free life. Specially developed lenses and lens coatings can provide preventative measures to relax and protect your eyes from digital devices and minimise exposure to potentially harmful blue-violet light. These specially designed lenses have been made for everyone who spends time looking at digital screens, whether that's for work or leisure.

Research suggests that one in three adults spend over nine hours a day on digital devices and an average adult will look at their mobile device over 100 times per day. It has also shown that one in four children spend more than three hours per day on digital devices.

Only two hours in front of digital screens is enough to cause eye strain. Tired or irritated eyes, blurred vision, headaches or even neck and shoulder pain after using digital devices can be symptoms of digital eye strain. Another consideration for both eye and general health is the increasing abundance of potentially harmful blue light from natural and manmade sources.

Blue light is part of the visible light spectrum. It comes from the sun, as well as artificial light sources like digital screens and fluorescent lights.

This type of light gets absorbed deep in the eye, making it one of the most intense forms of visible light to humans. Blue-violet light penetrates the eye and potentially affects the health of the retina. It has been implicated in the development of macular degeneration.

Blue light may be beneficial to our eyes in moderation as it is necessary for regulation of the sleep/wake cycles, mood and cognitive performances, however it can also contribute to premature eye ageing.

'EyeZen' lenses have been developed to protect your eyes in numerous ways – each lens contains three technologies in one and can assist with sharper clearer vision, more comfortable relaxed vision and protection from blue light. The lens contains a blue-violet filter that blocks at least 20% of harmful blue light.

As the sun sets and the light changes from blue to yellower tones, the pineal gland (in the brain) lets down melatonin (the sleep hormone) which helps us get to sleep at night. EyeZen lenses block the specific wavelengths of light from digital devices that stop the let down of melatonin allowing the wearer to get to sleep.

h2 Vision Centres also offer Crizal Prevencia coating on single vision and multifocal lenses. This coating selectively filters out UV rays and blue-violet light while allowing other wavelengths of blue through. As well as protecting the eyes, it has also been found to improve comfort and reduced eyestrain when using computers and electronic devices.

A/Professor Hartley, a local medical practitioner and optometrist with extensive experience in accommodation-vergence (focusing and eye coordination) problems says that these lenses have been a game changer.

"We have been requesting a lens such as the EyeZen, with blue-blocking technology and stress relieving features, from lens manufacturers for some time. Especially since the rise of digital-device use has increasingly afflicted our patients," he said.

"It's great to finally have such a lens. Our patients report tremendous benefit and some have even stated that they have increased their productivity. Certainly, the lens works as it has been designed, relieving eye symptoms associated with digital device use."

Business feature