



## THE COLLEGE OF OPTOMETRISTS

### Member media alert

Last night's episode of [Watchdog](#) on BBC featured an item on the sale of blue lens filters to block blue light. It showed optical staff in high street practices citing claims on the protective factors of certain lenses for blue light to customers.

The investigation was also covered in the Daily Mail yesterday which you can [read here](#).

While the programme focused on dispensing opticians, you may be asked questions by customers about the programme, the efficacy of blue lens filters and the dangers of blue light.

### **What can you explain to customers about this issue?**

#### **What is blue light?**

Visible light ranges from blue, with the shortest wavelength, to red, with the longest wavelength. Blue light is produced naturally by the sun and artificially by electronic light sources.

#### **Is it damaging to the eye?**

There is no reliable evidence to say that using devices emitting blue light causes any permanent damage to eyes or eyesight. However, it may make users with pre-existing vision defects more aware of them. Blue light sources encountered indoors are unlikely to approach unsafe exposure limits, even for extended viewing times, and the eye possesses natural defences to mitigate blue light damage.

### **Are the eyes of children and older people any more susceptible to blue light?**

When we are born, the crystalline lens inside our eye, which we use to focus from seeing far away to seeing close up, is clear. As we get older, it naturally yellows and absorbs short wavelength (blue) light, protecting the retina. In addition to this, children's pupils are larger than the pupils of older people, so that more light (of all wavelengths) reaches the retina of a younger person than that of an older one. The combination of both of these factors means that more blue light will reach the retina of a child than that of an older person.

### **Does the crystalline lens transmit more blue spectrum light in the young?**

Yes. As the crystalline lens of a young person is clear, and the crystalline lens of an older person is naturally yellow, the lens of a young person transmits more blue light to the retina than the lens of an older person.

### **Can blue lens filters help?**

There is no scientific evidence to support the use of blue lens filters to block blue light or that they can prevent long-term damage to the retina.

### **What can regular screen users do to protect themselves?**

We recommend that patients take frequent breaks from looking at a screen by following the 20-20-20 rule: every 20 minutes, look 20ft away (6m) for 20 seconds to give the eye muscles a break. It's also recommended to remind patients to take a full blink, as often people don't blink properly in front of a screen and this can tire the eyes.

### **What else can you see or read on blue light?**

You may have seen the debate on blue light at Optometry Tomorrow 2016, presented by Thierry Vilette and Professor John Lawrenson FCOptom. If not, or if you would like to refresh, you can watch it as an online lecture on the website. [C-](#)

[52823 Blue Light \(1 CET point available\)](#)

Also, remember that you can always call (020 7766 4372) or [email us](#) with your questions or concerns. If you have any clinical or professional concerns, our advisers are here to support you.