B3 OD & OA – 1CE

Blue Light Exposed

Supported by Essilor Group Canada

Saturday, February 25, 2017

7:30 am – 8:25 am  Plaza A/B – 2\textsuperscript{nd} Floor

Presenter: Don Ross

Don Ross is an enthusiastic speaker who enjoys providing eye care professionals in Canada with the tools to create positive patient experience. Don has worked in the optical industry for more than 20 years. Don is currently the Business Consultant for Essilor in BC and the Prairies where he works with optometrists and opticians to further enhance their business practices through product education and best practice solutions.

Don has worked as a dispenser for a national optical retailer, a local optical chain, an independent optometrist, and a nationally recognized independent optical boutique. He has an award-winning background as an account executive for two international frame manufacturers. Prior to his current role with Essilor, he was the Western Canadian Territory Manager for Transitions Optical. Don has a degree in communications, specializing in public relations, and held various marketing communications roles with federal and provincial government agencies, not-for-profit organizations, and a technology provider to the hospitality industry.

Course Description

Blue light has a very short wavelength, and so produces a higher amount of energy. Studies suggest that, over time, exposure to the blue end of the light spectrum could cause serious long-term damage to your eyes. Sources of blue light include the sun, digital screens, fluorescent and LED lighting. This lecture will discuss blue light and what we can do to protect our eye from this high energy light radiation.
BLUE LIGHT EXPOSED

The Effects of Blue Light and the Solutions for Your Patients
WHAT IS BLUE LIGHT?
Today’s electronic devices, such as computers, tablets, smartphones and TVs, emit high-energy blue light. Other sources of blue light include the sun, and fluorescent and LED lighting.

Virtually all of us, including your patients, are exposed to Blue Light EVERYDAY!

63% of adults don’t know that electronics emit blue light.

Expose the presence of blue light by using the Blue Light detector glasses.

Ask your patients to look at their cell phone or the in-store lighting and view the light spectrum!
With the increased use of electronic devices, the population is being exposed to more sources of blue light than ever before and for longer periods of time.

72.5% of adults are unaware of the potential dangers of blue light to eyes*

Time Spent on Digital Devices

- 9h/day*
- 40% millennials
- 25% boomers
- 33% genXers

*The Vision Council 2015 report on digital eyestrain.
Children’s Eyes

- Children’s eyes are not fully developed before the age of 10.
- Children’s crystalline lenses let through six times more harmful radiation than adult’s.
- Children should be protected against blue light overexposure as early as possible (effects are cumulative over a lifetime).

**THE BENEFITS & DANGERS OF BLUE LIGHT**

**Beneficial Effects**
- Helps regulate circadian rhythm, the body’s natural sleep and wake cycles.
- Helps activate the pupillary constriction reflex, boosts memory and cognitive function.
- Elevates moods.
- Boosts alertness.

**Harmful Effects**
- Too much blue light can disrupt the body’s natural circadian rhythm.
- Greater risk of certain types of cancers.
- Digital Eyestrain Syndrome*: blurry vision, difficulty focusing, dry and irritated eyes, headaches, neck and back pain.
- Greater risk of diabetes, heart disease and obesity.
- May cause permanent eye damage; may contribute to cataracts and to age-related macular degeneration which can lead to vision loss.
- Overexposure increases risk of depression.

* Digital Eyestrain: The physical eye discomfort felt after 2 or more hours spent in front of digital screens.
Do you spend many hours on electronic/digital devices?
Do your eyes feel tired after spending long hours on a computer?
Do you sometimes find your digital screen is too bright?

Screen for Digital Eyestrain — Consequences for the Eyes:

- Irritated eyes
- Dry eyes
- Headaches
- Blurred vision
- Neck & back pain

70% of adults
60% of kids & teens
have reported symptoms
of digital eyestrain
RECOMMEND SOLUTIONS TO PATIENTS

20-20-20 breaks: every 20 minutes, take a 20 second break and look at something 20 feet away.

Limit the amount of time spent in front of the screen.

Reduce screen brightness and increase text size to better define the content on the screen.

To ensure screen time doesn’t affect sleep time, reduce exposure to digital devices at least 2 hours before bed & avoid having them in the bedroom.

Don’t hold the screen too close to the eyes, especially for long periods of time.

Ophthalmic lenses with a special coating designed to protect against blue light are available (with or without prescription lenses).
For your lens wearers who are exposed to blue light emitted by digital devices

Blue Light Filter Coating:

- Reduces their digital eyestrain
- Enhances the comfort of their overall visual health

The best protection against the high-energy blue light waves emitted by digital devices is to wear lenses treated with a blue light filter coating.
Results from a recent study by the School of Optometry at the University of Montreal showed that:

- Wearing a lens treated with a blue-light filter coating helped reduce symptoms of eyestrain by half during prolonged computer exposure (2.42 symptoms before vs. 1.47 symptoms with blue coating, p = 0.04)

- After wearing a lens treated with a blue-light filter coating, subjects with symptoms of eyestrain due to prolonged computer exposure felt a significant improvement of the following symptoms: dry eyes, feeling of sand in the eyes, and glued eyes.

- Trends for improved overall vision and visual performance in situations of low contrast.
• The blue reflection that is visible on the lens when blue light hits the lens is not a cosmetic effect rather, it is the proof that the blue light is reflecting off the lens.

• Demonstrate the efficacy of blue light coating with the help of a lens demo.
You are in a unique position to appropriately educate your patients about the dangers of blue light and its impact on vision, and to provide patient solutions to help minimize its damaging effects.

To learn more, go to www.bluelightexposed.com
1. Blue light has a dark side. Harvard health publications
   http://www.health.harvard.edu/newsletters/harvard_health_letter/2012/may/blue-light-has-a-dark-side

   http://www.cclvi.org/contributions/effects1.htm

   http://www2.cslaval.qc.ca/cdp/UserFiles/File/telechargement/lumiere.pdf

4. «Health Effects of Artificial Light». Scientific Committee on Emerging and Newly Identified Health Risks.
   http://ec.europa.eu/health/scientific_committees/emerging/docs/scenihr_o_035.pdf


   http://www.pewinternet.org/2013/03/13/teens-and-technology-2013/

8. Kids Still Getting Too Much 'Screen Time': CDC.


https://kaiserfamilyfoundation.files.wordpress.com/2010/01/mh012010presenti.pdf


