



CANADIAN ASSOCIATION OF OPTOMETRISTS
ASSOCIATION CANADIENNE DES OPTOMÉTRISTES

Solar Eclipse Eye Safety

Tools and Resources for CAO Members



Solar Eclipse Eye Safety

Upcoming Eclipses

A remarkable total solar eclipse is set to occur on **April 8, 2024**, spanning from Southern Ontario to Newfoundland and Labrador, with the rest of Canada experiencing a partial eclipse. While these events are awe-inspiring, they also pose potential risks to eyesight if proper precautions are not taken. As optometrists, ensuring our patients' eye health and safety is paramount during these exceptional occurrences.



Background

During a solar eclipse, the moon moves between the Sun and the Earth, partially or completely blocking the Sun's rays. The danger lies in the fact that even during a partial eclipse, the Sun's intense radiation can cause severe damage to the eyes. Looking at the Sun directly during an eclipse can lead to solar retinopathy, permanently damaging the retina's light-sensitive cells.

To safeguard against eye damage, recommend the use of specially designed solar filters, such as eclipse glasses or handheld solar viewers. These filters should comply with the ISO 12312-2 safety standard, blocking out harmful ultraviolet (UV) and infrared (IR) radiation, as well as intense visible light. Advise patients to obtain filters from reputable sources to ensure authenticity and to inspect them for any damage before use. Discourage the use of homemade filters like sunglasses, unfiltered cameras, CDs, or exposed film, as these do not provide sufficient protection against solar radiation.

Educate patients on the proper use of solar filters. Emphasize the importance of putting on eclipse glasses/filters before looking up at the Sun and keeping them on while viewing. Even a brief look at the partly eclipsed Sun can result in harm to the eyes. Children may need extra supervision during eclipses as they may not fully comprehend the risks involved, so encourage parents to educate them about eye safety and provide proper filters or alternative safe viewing methods.

Optometrists play a crucial role in promoting eye safety during eclipses. Ensuring patients are aware of the risks associated with direct Sun observation and advocating for the use of certified solar filters will safeguard their long-term eye health. Educate your patients and the public about risks and best practices for eye safety to ensure that eclipses are unforgettable and enjoyable experiences.



CAO Eclipse Resources

- [CAO Eye Health Library Solar Eclipse Safety](#) piece with viewing safety tips:
- Optical Prism Article Aug 2023: [Solar Eclipse Alert: What ECPs need to know to protect their patients - Dr. B Ralph Chou](#)
- Optical Prism Article Sept 2023: [Playing Hide & Seek with the Sun: Eclipse Dos and Don'ts – Dr. Martin Spiro](#)
- [Eclipse infographic](#)
- [Eclipse Q&A videos](#)
- [Eclipse Social Media Guide](#)
- [Eclipse Social Media Content](#)

Other Eclipse Resources

- [Watch the eclipse online](#)
- [Eclipse app](#)
- Eclipse path: The [American Astronomical Society](#) and [eclipse2024.org](#) websites have detailed information on the eclipses, including the timing and path across North America.
- Eclipse viewers/glasses: [The American Astronomical Society](#), the [Eclipse2024](#) website and [Royal Astronomical Society of Canada](#) all have information and links for ordering solar eclipse glasses.
- Watch the webinar by the Royal Astronomical Society of Canada on [“Planning for a Solar Eclipse”](#)
- Read more about the upcoming solar eclipse at [DiscoverTheUniverse.ca](#) (includes a video featuring Dr. Ralph Chou)
- [Pinhole camera instructions](#)
- [Article on 2024 eclipse viewing in Canada](#)