

Solar Eclipse



Safety

On April 8, 2024, a total solar eclipse will cross North America, passing over Mexico, United States, and Canada. A total solar eclipse happens when the Moon passes between the Sun and Earth, completely blocking the face of the Sun. The sky will darken as if it were dawn or dusk.

According to the American Academy of Ophthalmology, **looking directly at the sun during most parts of an eclipse can permanently damage your vision or blind you.** The only time it is safe to look directly at the sun is when it is completely covered by the moon during the totality phase of an eclipse. During all other times, you could damage your retina, possibly causing blindness. (aao.org/eye-health/tips-prevention/how-to-safely-watch-great-american-eclipse-of-2017.)

HERE ARE THREE SAFE WAYS TO WATCH THE ECLIPSE:

1. Wear eclipse glasses with certified solar filters

Sunglasses, even very dark ones, are not enough to protect your vision if you look at the sun. Homemade filters are also a bad idea, and will not protect your eyes. Plan ahead and obtain eclipse glasses or hand-held solar viewers. These products contain a solar filter that must meet a very specific worldwide standard known as ISO 12312-2. This filter is the only way to truly protect your eyes from the sun's powerful rays.

2. Make a pinhole viewer to watch the eclipse indirectly

A safer and easier way to see the eclipse is through a pinhole projection or video display. A pinhole viewer lets you project an image of the sun onto another surface, like paper, a wall or pavement. The image of the sun is safe to look at throughout the eclipse. [Learn from NASA how to make a pinhole projector.](#)

3. View a live stream of the eclipse

Consider watching the eclipse online. NASA will have a live stream of the solar eclipse at:

science.nasa.gov/eclipses/future-eclipses/eclipse-2024/live/

