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How to View an Eclipse Safely

It's not the eclipse that is dangerous to observe, it's the Sun! The Sun's visible (and invisible) rays can cause serious damage to the sensitive tissues of the eyes, often without being immediately aware of it! Normally, our common sense protects us from looking directly at the Sun for more than a second. But during an eclipse, astronomical enthusiasm can overwhelm common sense, and people can wind up staring at the Sun for too long. Make sure all attendees have something with them to protect their eyes before the eclipse becomes total – or if they are only seeing the partial eclipse.

Are eclipses of the Sun dangerous to watch?

The few minutes of total eclipse (when the Sun is completely covered) ARE safe, but anytime that even a small piece of the bright Sun shows, your eyes are in danger. Paper glasses with special filters made of protective material will be sold in lots of places. (Make sure that on the back, in small print, they say that they are ISO 12312-2 certified.) Sunglasses are NOT sufficient to protect your eyes!

To summarize: If you are lucky enough to be in the path of the total eclipse, you can and should remove your glasses during the few minutes that the eclipse is total, so you can take in the beauty of the scene. But if you are viewing the partial eclipse only, you must keep your glasses on anytime you are looking in the direction of the Sun.



Girls and Woman With Eclipse Glasses

What are some ways I can watch the eclipse safely when part of the Sun is still visible?

A. Sun Filters to Look Directly at the Sun

To look at the Sun directly, except during the total phase of the eclipse, you need a good filter that can cut out not just its intense light, but also its ultraviolet and infrared waves. Sunglasses or smoked glass are NOT OK! If you have access to welder's supplies (and not many people do), #14 arc-welder's glass is an excellent filter (but it has to be #14 and not lower numbers). Or you can use special black or aluminized polymer filters that are sold as eclipse glasses; but make sure you get them from a reliable source and that they are certified. Companies making and selling them in bulk include:

American Paper Optics:

<http://www.eclipseglasses.com/>

Rainbow Symphony:

<http://www.rainbowsymphony.com/>

Thousand Oaks Optical:

<http://www.thousandoaksoptical.com/>