

# How To Look *Directly* at the Sun

Find out more: <https://eclipse.aas.org/eye-safety> and <https://svs.gsfc.nasa.gov/12517>

## It's not an eclipse that is dangerous to observe, it's the Sun!

The Sun is so bright that its rays can cause serious damage to the sensitive tissues of the eyes, often without our being immediately aware of it. To look at the Sun directly you need a safe solar filter that can cut out intense light. **Always use a solar filter (eclipse glasses) when looking directly at any part of the bright sun.**



### Solar eclipse glasses

Eclipse glasses are NOT regular sunglasses. **Regular sunglasses, no matter how dark, are not safe for viewing the Sun.** Safe solar viewers are thousands of times darker.

### How to use solar eclipse glasses

Eclipse glasses are so effective at blocking light that you won't be able to see anything but the sun when you're wearing them, **so don't walk around with them on.**

If you normally wear eyeglasses, keep them on. Put your eclipse glasses on over them or hold your handheld viewer in front of them.

Stand still and use your eclipse glasses or solar filter to **cover your eyes BEFORE** looking up at the bright Sun. After looking at the Sun, turn away from the Sun and then remove your filter — **do not remove the filter while looking at the Sun.**

### Be safe

You should be able to see only the sun through your eclipse glasses. If any other light does get through, **don't use those glasses.**

If your eclipse glasses are torn, scratched, or punctured, **don't use them.**

If your eclipse glasses are coming loose from the cardboard, **don't use them.**



Do **NOT** look at the Sun through any optical device (camera lens, telescope, binoculars) while wearing eclipse glasses or using a handheld solar viewer — the concentrated solar rays can burn through the filter and cause serious eye injury.

### Can I observe the Sun when there is no eclipse?

Yes, you can view the Sun any time it's visible in the sky by using eclipse glasses but check them carefully each time before you use them.

When looking at the Sun through eclipse glasses you may occasionally be able to see tiny dark spots on its surface. These are groups of sunspots – cooler areas on the Sun's surface that give off less intense light and look darker to us.

### What if I don't have a solar filter?

If you don't have access to a safe solar filter, you can still observe the Sun – **indirectly** - by using the projection method. Find out more about the projection method here: <https://sdavies.com/eclipses/Projection.pdf>

