

What you need to know:

# Eclipse of the Sun

Monday, April 8, 2024, 3pm

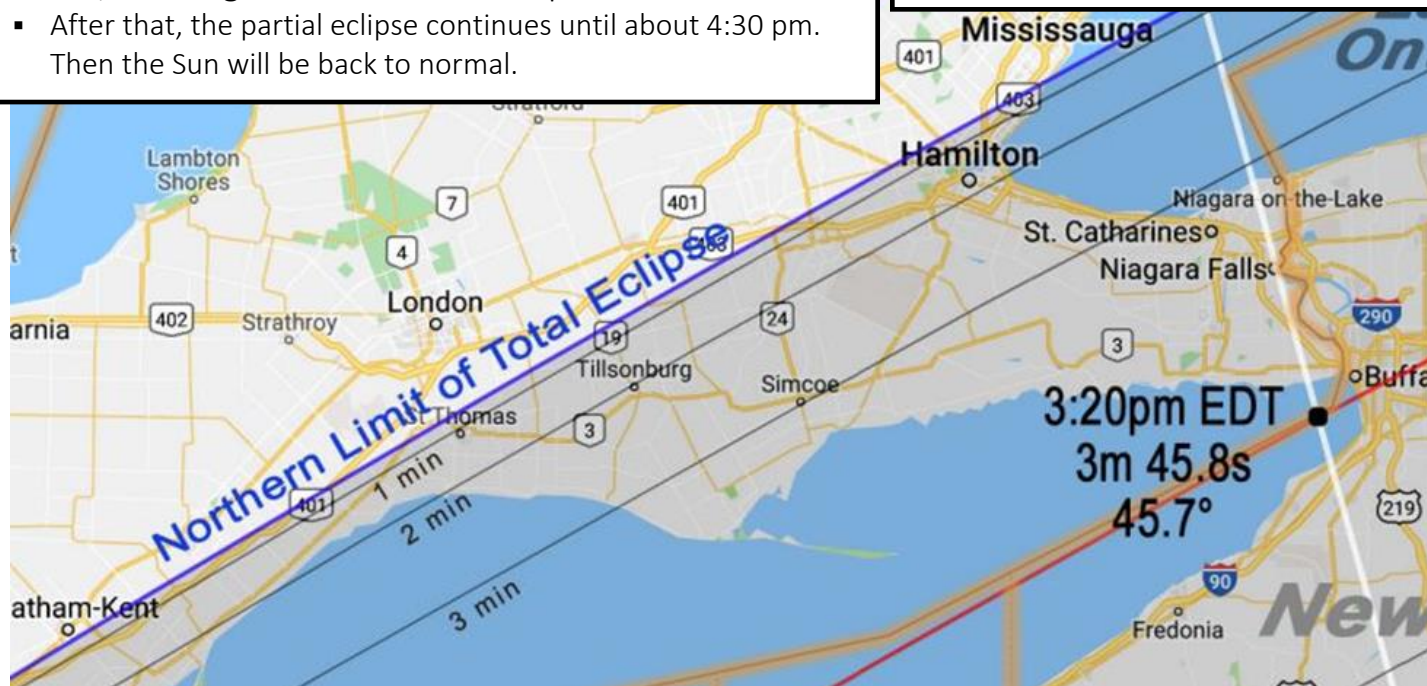


## Be Safe. . . *never* look directly at the Sun!

You have **no pain receptors inside your eye** and the Sun's rays are bright enough to damage your eye without you feeling a thing!

However, if you get to the total phase of the solar eclipse, the Sun is completely blocked and therefore it is safe to look at.

- *Provided the sky is clear*, the eclipse begins with a **partial eclipse** stage on the right side of the Sun's disk **after lunch, about 2pm**.
- *How soon will you first notice the black bite out of the Sun?*
- Even a small crescent of the Sun's disk is very bright — almost full daylight. *See if you can tell the difference in the blue sky.*
- If you are within the total solar eclipse path, you will also see the total solar eclipse.
- London is a little outside the total solar eclipse path!
- The total solar eclipse goes from Mexico to Newfoundland.
- To see the total solar eclipse, get yourself south of the blue line shown on the map below.
- **Total eclipse occurs around 3:15 pm and lasts less than four minutes.** The further southeast you are, the longer the total solar eclipse is.
- After that, the partial eclipse continues until about 4:30 pm. Then the Sun will be back to normal.



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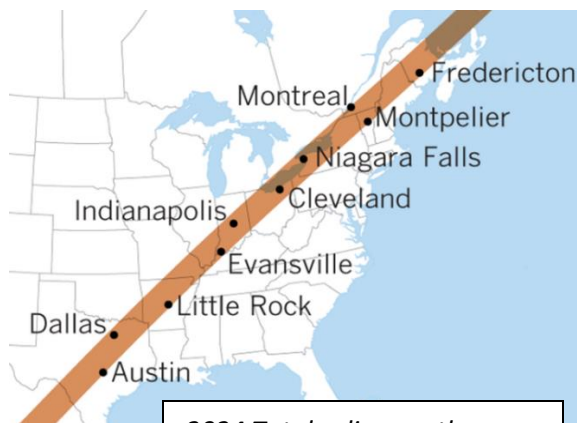
# Total Eclipse of the Sun: April 8, 2024

## along the Lake Erie shore and across the Niagara Peninsula



A Solar Eclipse occurs because the Sun is about 400 times bigger than the Moon, but it is 400 times farther away, so the Sun and the Moon appear to be the same size in the sky.

- The Earth orbits the Sun and the Moon orbits the Earth. In this pattern of going around and round, sometimes the Moon crosses the line between the Earth and the Sun.
- From our vantage point on the Earth, a solar eclipse occurs when the disk of the Sun is covered, partly or entirely. If an eclipse occurs when the Moon is a little farther from the Earth, it's an annular eclipse.
- While the disk of the Sun is completely blocked, as seen from some points on the Earth, it's a **total solar eclipse** at those locations.
- This is the first time in **99 years** that a total solar eclipse is visible in southwestern Ontario.
- Some folks travel a long way to see an eclipse happen somewhere else, but in southwestern Ontario, the next total solar eclipse is in **2144. Tell your children!**



2024 Total eclipse path across eastern North America

*Under thin clouds*, it's still worth checking to see if the eclipse is visible in a sudden moment of clear sky.

*But what if it's heavily overcast or even raining?*  
Then you won't see the eclipse, but it will still get dark.  
Try to watch a live TV channel or an internet feed.

### Safe Viewing Methods for a Partial Eclipse

- Cover your eyes with proper solar eclipse glasses that reflect more than 99% of the light and let less than 1% through. **Check for tears or scratches!**
- Safe solar eclipse glasses have "ISO 12312-2" printed on them.
- The partial eclipse lasts a couple hours — long enough to hand solar eclipse glasses to your friends and family, so solar eclipse glasses can be shared.
- Solar eclipse glasses can be purchased from telescope stores and some hobby outlets. A limited supply of free solar eclipse glasses are available at tourist information centres and libraries in London and Elgin County, as well as some schools and other science centres or observatories.
- You can build a pinhole camera out of a shoebox or something larger, then watch the small image of the Sun change shape inside the box.
- Use a colander or anything that has small holes in it to project small images of the Sun on the ground or any smooth surface, but don't look through it at the Sun!
- Use a special solar filter to cover the front of your camera, binoculars or telescope.
- During the total solar eclipse phase that lasts just a few minutes, it is safe to look without protection. It is spectacular!
- Click the QR code for more information.

