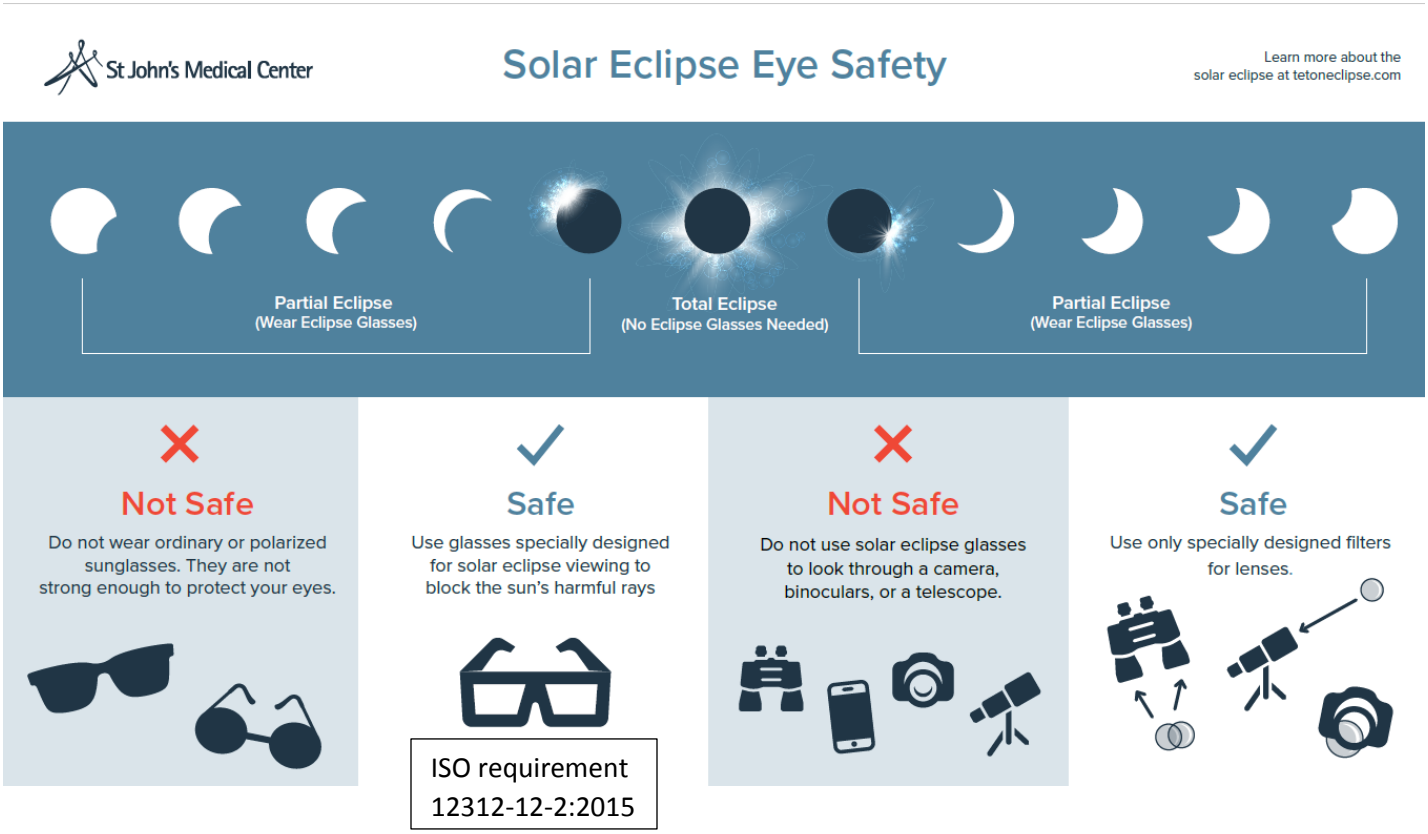
Eye Safety Information for Children and Adults during the Total Solar Eclipse

August 14th, 2017- Teton County Public Health is advising young children and individuals who cannot keep the eclipse glasses on to stay inside during the total solar eclipse. Children's eyes are more susceptible because they are clear and crystalline- they do not block UV and infrared light like adult eyes. Children and adults who look directly at the sun's rays are at risk for solar retinopathy. Solar retinopathy is photochemical damage to the retina (back of eyeball where the eye's lens projects light) by being exposed to excessively bright light. Solar retinopathy is called eclipse blindness when an individual stares at the sun during an eclipse. It only takes a few seconds of looking at the sun to cause solar retinopathy, this type of damage/ exposure is cumulative over a person's lifetime. Solar retinopathy can be immediate and permanent, immediate and reversible, or delayed and progressive depending on the circumstances.

During the solar eclipse it will be easier to look directly at the sun's rays because the moon will be blocking some of the sun's light. The partial phase of the eclipse is when the moon begins to cover the sun. During this phase children and adults must wear eclipse glasses to protect their eyes. If children cannot keep their eclipse glasses on it is recommended that they go inside during this phase of the eclipse. Eclipse glasses are designed to fit adults so they may not fit children properly. When the moon is fully blocking the sun during the total eclipse it is ok to take your eclipse glasses off and look up at the sun (see image below). The total eclipse will last for approximately 2 minutes, this is when it is safe for children who cannot keep the eclipse glasses on to experience the eclipse.



Signs and Symptoms of Solar Retinopathy (Eclipse Blindness)

- Signs of eclipse blindness include:
  - Reduced visual acuity (bad vision),
  - Central scotomas (blind spots),
  - Chromatopsia (disruption or tinting of color perception),
  - Metamorphosia (disruption or distortion of shape perception), and
  - Photophobia (light sensitivity)
- Solar retinopathy is thought to contribute to age-related macular degeneration later in life, a common cause of progressive blindness.

Treatment

If you think someone has damaged their eyes by looking at the sun during the total solar eclipse:

- STOP looking directly at the sun.
- Go indoors, preferably into a dark room and rest your eyes.
- There is no effective medical treatment for solar retinopathy.
- Follow up later with an eye specialist. Testing can be done to determine the extent of damage, but there is no effective medical treatment for solar retinopathy at this time.
- Follow up with the patient's primary eye doctor in 1-3 days.
- Vision often recovers after sun damage, but not always. Data are very limited, but in one case series of four patients, three had recovery of normal vision within 1-3 months. One patient's vision remained affected one year later.

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