

# WHY YOU SHOULD GO POLARIZED

BY GARY HEITING, OD

Most of us have heard of polarized sunglasses. But it's surprising how few people really understand the technology behind these premium sun lenses—and why, in most cases, polarized lenses are safer, more comfortable and offer a much better value than regular sunglass lenses.

Here's a brief primer on what you should know about polarized lenses, and why you should consider them.



Without polarized lenses



With polarized lenses

## BASICS ABOUT SUNLIGHT—AND REFLECTIONS

To fully understand the benefits of polarized lenses, it's important to know a little about how sunlight behaves and why it sometimes causes glare, discomfort and reduced visibility.

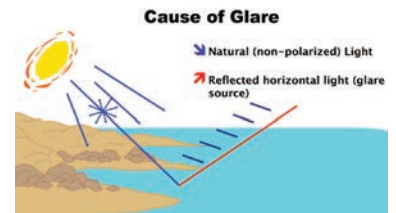
Sunlight travels to Earth in the form of waves. But unlike waves of ocean water that have a relatively common (horizontal) orientation, light waves are much more random and travel in all directions. If all light waves had the same directional orientation, this would increase the intensity of sunlight to an unbearable, blinding level.

On a smaller scale, this is what happens when sunlight strikes a flat, reflective surface. The light waves that bounce back from such a surface are more uniform in their orientation than direct sunlight. This causes the reflected light to be much more intense than the brightness of surrounding objects.

## REGULAR SUNGLASSES HELP A LITTLE...

Regular sunglasses reduce reflective glare to some degree, but tints in regular sunglass lenses treat direct (randomly oriented) light rays and reflected (more aligned and intense) light rays equally.

So bright, reflective "hot spots" that affect your vision and comfort remain, even if they are a bit less intense.



## ...BUT POLARIZED LENSES ARE BETTER

Only polarized sunglass lenses have the technology required to selectively reduce the brightness of reflected light rays to a greater degree than the brightness of surrounding objects. By doing so, bright reflections are minimized for a more uniformly illuminated visual field—which means greater comfort and better visibility.

How so?

In addition to having a tint that reduces overall brightness, polarized sun lenses have a special filter incorporated into the lens material. This thin film is chemically and mechanically engineered to absorb and filter light waves of a specific wave orientation that matches the orientation of most of the rays reflecting back from flat, horizontal surfaces—such as road surface, oncoming vehicles, or the surface of a body of water.

Specific benefits of polarized lenses include:

- Safer driving vision due to better visibility and less eye fatigue
- Fewer headaches from eye strain and squinting in bright sunlight
- Superior eye protection for sports (with trivex or polycarbonate polarized lenses)
- More enjoyment of fishing and water sports due to better visibility below the water surface
- 100 percent protection from the sun's harmful UV rays
- All-day wearing comfort (with lightweight polycarbonate polarized lenses)

Also, polarized sun lenses are available in a number of prescription lens designs to meet your visual needs.

## GO POLARIZED TODAY

Why wait any longer to enjoy life outdoors to the fullest? Ask your eye care professional for more information about polarized lenses and experience the improved vision and comfort these premium sun lenses provide.

Gary Heiting, OD, has more than 20 years experience as a clinical optometrist.

**HOYA**  
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