



## SUNGLASSES AND UV: THE GOOD, THE BAD AND THE UGLY

Forget your sunglasses – no big deal, right? Think again. Ultraviolet (UV) radiation is a known culprit for painful sunburns and melanoma, yet few adults associate it with serious vision problems. But unprotected exposure to UV rays can have very serious eye consequences – especially over the lifetime.

A study by The Vision Council found that 40 percent of U.S. adults do not wear sunglasses outside, increasing unfiltered exposure to the sun. This statistic is troubling but the good news is that wearing UV-protective sunglasses can prevent damage and reduce the onset of vision diseases. Here's a look at the benefits of wearing sunglasses every day:

### The Good: Sunglasses

- ✓ **Reduces UV-related eye damage:** UV-protective sunglasses block dangerous UV rays from reaching the eye. A host of vision problems can occur from UV exposure (see below), so limiting eyes' vulnerability to the sun can mean healthy eyes and vision well into adulthood.
- ✓ **Protects eyes and eyelids:** Wrap-around sunglasses provide extra protection to shield both the eyes and the skin near the eyes from sunburns. For little ones, sunglasses can prevent accidents with sunscreen getting in the eyes.
- ✓ **Prevent squinting:** Without sunglasses, we squint due to the intensity of the sun. For the beauty conscious, frequent squinting can result in wrinkles around the eye, including crow's feet. Squinting can also increase a person's propensity to develop headaches because eye muscles become fatigued.
- ✓ **Enhances visual performance:** There are specific lens options, tints and colors that are best for outdoor activities. Finding a pair of sunglasses optimized for your specific needs and lifestyle can make life easier.

#### Lens Options

- **Photochromic lenses** automatically darken and lighten to provide the right level of protection and comfort over a wide range of light conditions.
- **Anti-reflective lens treatments** dramatically reduce distracting reflections to improve contrast, visual acuity and comfort in difficult lighting situations.
- **Polarized lenses** filter out reflected glare from shiny surfaces and improve contrast and visibility while reducing squinting and eye strain.

#### Lens Tints

- **Solid tints** cut glare from all directions.
- **Gradient tints** which have a gradual change in color (from dark to light), cut overhead glare and provide clearer vision when looking straight ahead or down.
- **Double gradient** tints, which have a more intense color change (from dark to light to dark), cut overhead and reflected glare.

#### Lens Colors

- **Brown/Amber/Copper:** reduce glare and improve contrast and visibility by selectively filtering blue light. Best for driving, golfing, water spots, and snow sports.
- **Gray/Green-Gray:** reduce glare while maintaining natural colors; keep eyes refreshed. Best for driving.
- **Yellow/Rose:** enhance contrast and definition, especially in lower light conditions. Best to use when fog or haze is present.

## The Bad: UV Damage

Although short-term effects of UV eye damage don't last forever, the conditions associated with too much exposure to UV can be painfully debilitating. The following are reminders of why it's important to always protect your eyes:

- ✓ **Sunburn of the eyes (Photokeratitis):** Unprotected exposure to UV can actually sunburn the eyes, specifically the cornea. For those who experience this condition, it is extremely painful and can cause temporary blindness. Known as "snow blindness", "welder's eye", or "flash burns", photokeratitis is not permanent and is easily preventable through the use of UV protective eyewear.
- ✓ **Surfer's eye (Pterygium):** Cumulative UV exposure can result in a non-cancerous, growth of pink, fleshy tissue on the white of the eye. Growths typically appear in the corner of the eye nearest to the nose. While not painful, pterygium can be a nuisance and may lead to vision impairment. Surgical removal is an option, however the growths may reappear.

## The Ugly: UV Damage

Imagine having your vision slowly robbed from you each day. For millions of aging Americans, this is a reality. When it comes to our well-being, we often wait to address health issues before things are too late. Being more vigilant about wearing sunglasses is crucial, as damage over time can ultimately affect your vision later in life:

- ✓ **Cataracts:** This condition causes progressive clouding of the lens inside the eye. It is expected that by 2020 more than 30 million Americans will develop cataracts. While cataracts are the most common cause of vision loss in adults 40 and older, the issue is also the most treatable. While some cataracts occur naturally due to normal aging, their development and growth has also been attributed to long-term UV exposure. UVB rays, which contribute to the changes in lens of the eye, are considered especially damaging.
- ✓ **Age-related macular degeneration:** Loss of vision is a frightening prospect, with many older adults facing issue as they age. While age is a major determinant, studies suggest that UV exposure has been linked to age-related macular degeneration (AMD), which is the leading cause of blindness in adults 60 and older. This eye disease is characterized by cell deterioration in the macula – an overtly yellow spot near the center of the eye's retina. There is currently no cure for AMD, but can be managed when properly diagnosed and treated.
- ✓ **Cancer of the eye and on the eyelid:** High amounts of UV exposure can also increase the risk of cancer in the eye and skin surrounding the eye. Intraocular cancer is rare but dangerous; nearly 3,000 cases are diagnosed in the United States annually. And the skin around the eye is susceptible to malignant growths. According to The Skin Cancer Foundation, 10 percent of all skin cancers are found on the eyelid. Individuals with light skin and eyes (blue and green) are at an increased risk of developing cancers in or near the eye.