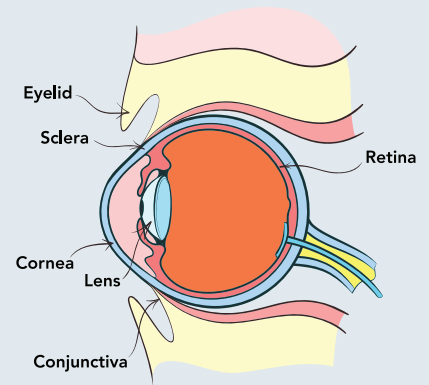


THE EYES AND SUN DAMAGE

In surveys, people consistently say vision is the sense that they cherish the most.

Yet most people are unaware that every day they spend in the sun without sunglasses may be putting them at risk of eye damage—possibly even permanent vision loss.

Here's a summary of the major structures of the eye, along with a brief description of the damage too much sun can inflict on them:



EYELIDS

Though they aren't part of the eye itself, the eyelids and skin around the eyes serve important functions and care of these structures should be part of your eye care.

Too much time in the sun without sunglasses that block 100 percent UV and a significant amount of high energy visible light, (HEV or "blue light"), can increase the risk of cancer of the eyelids and skin around the eyes.

The most common cancer that affects the eyelids is basal cell carcinoma (BCC), which accounts for about 85 percent of all eyelid tumors and is the most frequently occurring type of cancer in the entire body.

FRONT SURFACE OF THE EYE

The front surface of the eye consists of these structures:

Cornea

The clear central "window" of the eyeball that allows light to enter the eye. The cornea provides about 70 percent of the focusing power of the eye.

Sclera

The tough outer coating that forms the "white" of the eye.

Conjunctiva

Conjunctiva – A thin, clear membrane that contains tiny blood vessels and covers the sclera.

Sun-related eye problems affecting the front surface of the eye include:

Photokeratitis

A painful sunburn of the cornea. Though commonly called snowblindness, photokeratitis can occur in summertime as well—especially when on the water, which reflects UV and HEV rays.

Pinguecula

A non-cancerous but unsightly yellow growth in the conjunctiva.

Pterygium

A pink, triangular-shaped growth on the sclera that can invade the cornea, causing vision problems.

Conjunctival Tumor

Repeated sun exposure has been linked to a cancer of the conjunctiva called squamous cell carcinoma, which can recur after treatment and may spread to other parts of the body.

LENS

The lens of the eye—located directly behind the pupil—works with the cornea to focus light on the retina. Studies have linked high lifetime exposure to sunlight to certain types of cataracts, (clouding of the lens), which affect vision and can be treated only with surgery.

RETINA

The retina is the light-sensitive inner lining of the back of the eye, where light is transformed into electrical impulses that are transmitted to the brain for vision to occur. Longer wavelength UV rays (UVA) and HEV blue light can penetrate deep into the eye and have been shown in laboratory tests to cause damage to light-sensitive cells in the retina consistent with changes caused by age-related macular degeneration (AMD). These and other studies suggest too much sunlight over a person's lifetime may increase the risk of AMD later in life. Currently, there is no cure for macular degeneration, which can cause permanent vision loss.



THE BEST PROTECTION FROM THE SUN

The best way to protect the eyes, eyelids and skin around the eyes from sun-related damage is to wear quality sunglasses that block 100 percent UV rays and also shield the eyes from blue light. And remember: UV radiation can penetrate clouds, so sunglasses are important on overcast and cloudy days as well as sunny days.

HOYA
MUCH MORE TO SEE