

INVISIBLE EYE HAZARD

According to the National Society to Prevent Blindness, each year almost 40,000 eye injuries are reported to be related to sports and recreational products. This number only reflects those that are reported, and estimates have been as much as 100,000. The sad part about eye injuries is that they often result in permanent damage, and over 90% of the injuries sustained could have been prevented. However, most people do not take any measures to protect the eyes. They protect their heads with helmets and their bodies with pads, but few wear eyewear to protect their eyes. There are many factors that will increase your risk to injury. Those with low skill levels, often found in the younger athletes, are at a greater risk. About 44% of the reported injuries were to children under the age of 14. Thus, young children should be protected, as any eye injury could have a lifelong effect.

Another factor that increases risk is the sport you are playing. Participating in a moderate to high-risk sport signals the need for eye protection. Low risk sports usually do not involve a ball or bat, and are usually individual sports. (i.e. swimming, track and field, etc.). Moderate risk sports may involve the use of a ball or bat, and team sports. Sports injuries usually are a result of the ball hitting the eye, or a teammate or opponent poking the eye with a body part. Such sports should require protective eyewear. High-risk sports are sports that involve direct physical contact, such as boxing or wrestling. Unfortunately, no protective eyewear can be worn in these sports. Those who have an existing eye weakness should be especially cautious when participating in such sports.

UV and its Effects on the Eyes

UV affects all parts of our bodies, including our eyes. UV has been proven to cause various eye problems, such as cataracts, sunburn to the eyelids, pterygium (*a growth of scar tissue and blood vessels on the sun-exposed surface of the eye*), skin cancer around the eyes, and macular degeneration, one of the leading causes of vision loss among older Americans.

Ultraviolet is the invisible part of light, made up of UVA, UVB, and UVC rays. Ultraviolet light is found between 50 nanometers and 380 nanometers (wavelength of light), whereas visible light is between 381 nanometers and 770 nanometers. The term UV 400 stems from this. **It is recommended that you protect yourself from UV radiation up to 400 nanometers, which extends into part of the visible spectrum to ensure complete blockage of ultraviolet light.** This is what distinguishes "cheap" sunglasses from more expensive ones. Dollar store sunglasses often say that they protect from UV when they really do not. Most will block harmful UVC and UVB rays, but most do not block the most damaging UVA rays. UVA rays are the ones closest to the visible spectrum, and are known to cause cataracts and pterygium at 300 to 380 nanometers. This is why UV 400 is so important. Since most inexpensive sunglasses do not cover this range, you are still at risk. Thus, it is worth it to spend a little more to guarantee full protection.