

## What You Can't See Can Hurt You!

Summer is here, the weather is warm and thoughts turn to sandy beaches and sunbathing as well as outdoor sports. While we may think to protect our skin from sunlight, we tend to forget about the eye. Both visible and invisible or ultraviolet (UV) portions of sunlight can damage the eye, lids and surrounding skin. The nature of the injury varies with the amount and duration of exposure.

Staring at the sun can result in “eclipse blindness” or solar retinitis due to harmful photochemical effects of violet and blue light on the retina. Acute overexposure of the cornea to UV light may cause “welder’s flash” or “snow blindness”. This phenomenon known as photokeratitis is well-known to welders and skiers. Of course, intense exposure of the skin about the eye can result in sunburn.

Chronic sunlight exposure has numerous ill effects on the eye. The lids and surrounding skin can prematurely age and develop actinic keratoses that can progress to skin cancer. The incidence of skin cancer is epidemic in the nation with 1 in 5 people developing it. Various types of skin cancer exist including melanoma and non-melanoma (e.g. basal and squamous cell

carcinoma). The conjunctiva can develop pinguecula and or pterygium which are abnormal non-cancerous growths usually located in the nasal cornea of the eye. Both can be irritating and painful and the pterygium can grow over the cornea blocking vision. Repeated UV exposure contributes to debilitating cataracts and age-related macular degeneration, each of which are leading causes of blindness in those over 50 years of age.

So, how can we prevent such damage? Avoidance of excessive exposure to sunlight is essential. This can be achieved with the wear of broad-rimmed (greater than 7 cm) hats and visors and tightly woven clothing and the use of appropriate sunscreen with sun protection factor (SPF) of 30 or higher. Ultimate eye protection is provided with sunglasses that block both types of UV light (A and B). The label on them should note a minimum of 90% protection from UV A and 95% from UV B light. Don't be deceived by a designer label or the price of a pair of sunglasses as effectiveness is determined by percentage of UV blockage. A dark green or grey tint affords optimal comfort and results for the wearer throughout the day. Be certain the sunglasses wrap around the temples to protect the sides of the face.

It is also important NOT to assume that sun protection is unnecessary on a cloudy day because the sun's rays can pass through haze and clouds. The peak times for UV exposure are between 10 am and 4 pm daily regardless of cloud cover. Be sure to consult the UV index provided by the National Weather Service before venturing outside.

Since the ill effects of excessive sunlight exposure are seen later in life, it's important to note that a child's developing eyes are especially vulnerable to sun damage. It is imperative to begin sunglass and wide-brimmed hat wear in infancy.

Additional options for sun protection for the eye include clip-on sunglasses, prescription spectacles with a clear and UV-protective coating, and tinted contact lenses. While some contact lenses offer UV protection, no studies have demonstrated their long-term benefit.

So, have fun in the sun this summer SAFELY with wear of proper sunglasses, clothing and sunscreen!