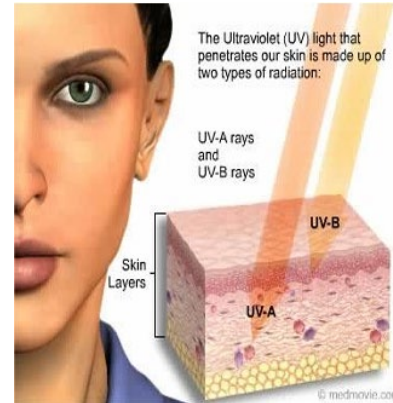


Ultraviolet Radiation and Your Eyes

Authored by Ieuan Rees

Sunglasses are not just a fashion statement, they are essential in preventing eye damage caused by the sun's ultraviolet radiation. It is common knowledge that the sun can cause sunburns to our skin and ultimately causes skin cancers, medical evidence has shown that our eyes also suffer "sunburn" which can lead to Cataracts down the track.



The long-term effects of excessive amounts of UV radiation happen slowly and painlessly, yet can impair vision. Possible damage to the eye includes inflammation of the cornea, cancer, cataracts and pterygium (a growth on the cornea).



So what is Ultraviolet Radiation?

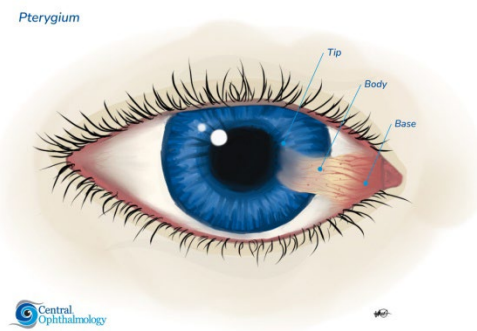
UV radiation is a type of produced by the Sun and as artificial sources like welding arcs, high intensity mercury vapour lights and tanning lamps. UV radiation consists of three main types: UVA, UVB and UVC. You need to be concerned mainly with UVB, which causes sunburn and is largely responsible for causing skin cancer. As we do not sense UV Radiation until damage is done (sunburns) it is important to take precautions every time you go outside.

Effects of UV radiation on the cornea

Most UV radiation striking the eye is absorbed by the cornea and high UV levels such as those encountered in the snow or on the beach can cause it to become inflamed. The condition is extremely painful and causes the eye to be highly sensitive to any light source. Although extremely uncomfortable, the condition usually resolves itself in about 48 hours and it is advisable to have an eye examination by an optometrist or ophthalmologist (eye surgeon) to ensure that no other damage has occurred.

Effects of UV radiation on the conjunctiva

Short-term exposure to UV radiation can damage the conjunctiva, while long-term exposure can cause it to thicken, forming a fleshy growth known as a pterygium. Progress of this condition is usually slow, with the pterygium growing until it starts to cover part of the cornea. When it can interfere with vision and become unsightly. The only treatment is surgical removal, which is a relatively minor procedure. The eye should be examined by an expert to differentiate between pterygia and other more serious growths.



Effects of UV radiation on the lens

UV radiation, particularly UVB, is associated with the formation of cataracts. These are opacities that form in the lens of the eye and interfere with vision, as though you were looking through a dirty window. In severe cases, cataracts can be removed surgically and the old clouded lens replaced by an artificial one. Cataracts have always been more common among elderly people and were thought to be a natural result of ageing. Recent research suggests that while this may be partly true, they are much more likely to be caused by prolonged exposure to UV radiation. Which can also damage the eye's, retina - the delicate nerve-rich lining of the eye used for seeing. Most forms of retinal damage are irreversible.

How to avoid effects of UV Radiation:

- Avoid outdoor activities when the Sun is at its highest- midday
- Follow the Cancer Council's Slip, Slop, Slap, Seek, Slide when outside. Slip on a shirt, slop on sunscreen, slap on a hat, seek shade, and slide on sunglasses.
- When near artificial UV radiation like welding eras, use the essential safety equipment like face shields.



Which sunglasses should you choose?

All sunglasses on sale in Australia must meet an Australian Standard that specifies how much UV radiation the sunglasses must block. Sunglasses should be close-fitting to prevent radiation getting

around the edges of frames; wrap-around models are excellent depending on your prescription. We at Buck and Todd Optometrist have a vast variety of sunglass frames as well as tints and polarised lens options.

Should children wear sunglasses?

Children are particularly at risk from UV radiation because they spend so much of their time outdoors and are not aware of the danger it poses. It is up to parents to protect their children's eyes by ensuring the children wear hats and good-quality sunglasses. Be careful when choosing sunglasses for children, checking labels to be sure they are sun smart.

Our optometrists can give you advice about prescription and non-prescription sunglasses to suit your lifestyle and needs. We recommend looking at our information sheets on Cataracts and Pterygium which can be found on our website in the 'Information on Eye Diseases' tab.