



— JULY IS —  
**UV SAFETY**  
— AWARENESS MONTH —

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Every morning we are fortunate to be able to wake up in the warmth of sunshine. But do we ever wonder what are the dangers of the Sun to our eyes? When we take a walk in the garden, make our way to work or spend a day at a beach lime, do we protect ourselves from the dangers of the sun?

You may have seen many adverts warning you about the purposed dangers of the light that is coming from our digital devices. Some of these adverts are designed to shock you into buying special lenses that may not be necessary for you as a patient. However, they warn grandparents that they should be protecting their precious grandchildren's eyes from the damaging screens, considering they are spending more time on these devices due to COVID-19. Many of these adverts provide no evidence of what they claim.

We need to ask ourselves why are these adverts not warning the grandparents of a bigger danger to their grandchildren. One that is there as soon as their grandchildren step out from their house. The Sun! The Sun is the biggest producer of light called "High energy visible" light & UV light, almost 50 times more powerful than the light coming from our devices but these companies do not want to warn you about this danger.

Ultra Violet light is at the end of the light range beside violet. The danger is we as humans cannot see it! *But yet it can do damage to our eyes.*

*Ultra Violet light is split into 3 types, UVA, UVB and UVC.*

- ➔ UVA is the range where an excessive amount of this will cause our skin to age, become wrinkly and saggy.
- ➔ UVB is the range where an excessive amount of this will cause our skin to burn, become blistered and painful
- ➔ UVC is the range where an excessive amount of this will cause skin cancer.

UVC is normally absorbed by the Earth's Ozone layer but over years of neglect by humans, the ozone layer is depleted and hence more UVC is reaching our atmosphere than before. This has led to an increase in skin cancers around the world.

However, UV can also cause damage to the eye, both front and back. It can cause a form of sunburn<sup>1</sup> to the front of the eye that is quite painful. UV light is known to cause fleshy lumps (pterygium)<sup>2-6</sup> to grow on the white of your eye. UV can cause early cataracts<sup>7-10</sup> and UV can also cause damage to the back of the eye<sup>11-14</sup>.

## **What can we do to protect our eyes against this danger?**

The best way to protect your eyes is to wear sun shades every time you are out in the sun. And not just any old shades, proper sun shades that have been proven to protect your eye against UV. Proper sunshades should block a minimum of 99% of the UVA and UVB from reaching your eyes. It is not the tint that is protecting your eyes against UV. So that is why a brown tint, grey tint or green tint is left up to you the patient to decide. What is protecting your eyes is a special UV layer. But patients, not all sun shades come with this layer. Many of the ones you may find in the markets or non-optical stores do not have this protection hence why they are so cheap.

You may think, well something is better than nothing right? Well patients, those shades which have the tint but not the protection are worse than nothing at all! If you go outside in the sun without any protection, the middle of your eye gets smaller and tries to stop some UV from getting into your eyes. However, when a dark tint is in front of your eye, the middle of your eyes gets bigger and so without the UV protection, **more** UV will get in than ever before and more likely to cause the damage listed above.

Your children and grandchildren are at the highest risk. It's estimated that up to 25-50% of lifetime exposure to UV happens before the age of 18<sup>15</sup>. Keep children younger than six months out of direct sunlight, ensure children of all ages wear sunglasses and sun hats when outside.

Also, as an adult wearing a wide brim hat is advised even when you are wearing sunshades.

You do not even need to be relaxing in sunlight to be in danger. UV reflects off water, sand and the pavement.

**Hence the need for UV protection no matter what you are doing! UV Protection is a full-time job!**

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## ABOUT THE AUTHOR



**Niall is an Irish trained optometrist who moved to Trinidad in 2001 to work for Ferreira Optical.**

**In 2013 he joined the University of the West Indies in the BSc Optometry programme where he is now Head of the Optometry Unit. He is also a past President of Trinidad and Tobago Optometrists Association.**

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