Ultraviolet (UV) Radiation and Your Eyes

Ultraviolet (UV) radiation is a component of sunlight. It can also be given off by artificial sources such as welding machines, tanning beds, and lasers. UV-A and UV-B can have damaging long-term and short-term effects on your eyes and vision as well as your skin.

If you are exposed to excessive amounts of UV-A and UV-B and your eyes are unprotected, you will likely experience a sunburn of the eyes. This often causes painful symptoms, including red eyes, a gritty feeling in the eyes, sensitivity to light and excessive tearing. Fortunately, this condition is usually temporary and rarely causes permanent damage.

Long-term exposure to UV-A and UV-B, however, can have more serious effects such as cataracts or damage to the retina. Blue light, another part of light, is perhaps even more damaging.

Protecting Your Eyes from UV Radiation

- Wear a hat or cap with a wide brim of 3 inches or larger

- Wear sunglasses that:
  - block out 99–100% of both UV-A and UV-B radiation; “UV absorption up to 400 nm” means the same as 100% UV blockage
  - screen out 75–90% of visible light
    - are perfectly matched in color and free of distortion and imperfection
    - have lenses that are grey, green, or brown, or red, orange, yellow, or amber (the latter four are best for blocking out blue light, another dangerous part of sunlight)

Other facts:

- Wrap around frames provide additional protection
- Contact lenses with a UV-blocking feature are also now available
- Glasses can be treated with a clear UV protective coating
- Your optician can check your glasses to measure UV protection
- “Polarized” has nothing to do with UV protection, but it reduces glare
- Some medications may increase your sensitivity to UV radiation—consult your doctor or eye care provider
- Protect children’s eyes with a wide-brimmed hat and appropriate sunglasses