

Summer 2019

Health Chronicle

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10 Ways to Protect Your Eyes This Summer

Information from the Barnet Perkins Eye Center provides great evidence-based advice on how to protect your eyes this summer. Remember we want to help you maintain good vision for many summers to come.

- 1. Wear Sunglasses with Complete Ultraviolet Protection.** You already know that you should protect your skin from ultraviolet radiation (UVR). But our eyes need similar protection, too. UVR comes from the sun and may also be reflected off surfaces such as water or sand.

Sunglasses are key but must offer 100% protection against both UVA and UVB rays. There are many choices of sunglasses that provide this protection and they don't have to be expensive. **Why is this important?:** Too much exposure to UVR can cause photokeratitis or photo conjunctivitis (also known as "snow blindness") in the short-term. Continual

exposure may also cause cataracts, pterygium (a non-cancerous growth over the cornea) or skin cancer of the eyelids.

- 2. Use Goggles at the Pool.** While swimming in a pool is a great way to cool off and get exercise, the chlorine in the water can feel awful on your eyes. The chlorine is designed to protect you from exposure to germs but can also hurt your eyes. Protect your eyes by wearing goggles and also consider wearing them if you swim the ocean or other natural bodies of water because they may contain other contaminants that may hurt your eyes. **Why is this important?:** Studies have shown that frequent exposure to chlorine negatively affects the integrity of your corneal epithelium. The epithelium protects the cornea from



irritants and pathogens and if it is compromised you may have an increased likelihood of corneal abrasion or other eye injuries.

3. **Wash Hands and Avoid Rubbing Your Eyes.** The best way to protect yourself from the spread of communicable disease is to wash your hands regularly. Doing this helps avoid contracting eye-related conditions such as conjunctivitis. You often develop conjunctivitis after touching something that someone else has touched after they rubbed their eyes. **Why is this important?:** You should wash your hands thoroughly before you apply any treatments to your eyes and avoid rubbing your eyes as much as possible. When you have conjunctivitis, be sure to wash your hands after putting in eye drops or ointment to avoid spreading the disease to others.
4. **Wear Hats.** Even if you wear sunglasses every time you go outside, you are not offering complete UVR protection to your eyes and eyelids. The gaps found along the sides of sunglasses still offer exposure to UVR. Wear a hat with a brim at least 3 inches wide to provide additional protection. Besides a sunglasses-hat combo can look very cool! **Why is this important?:** Basal cell carcinoma is a form of skin cancer that typically affects the eyelids. While it more commonly occurs on the lower eyelid, it can also develop in the corners of the eye or under the eyebrow. While BCC does not usually spread to other parts of the body, it can certainly spread to the eye itself.
5. **Protect Against Chemicals.** While people are more likely to sustain chemical burns to their eyes while at work, there are several opportunities to hurt your eyes in non-occupational tasks, as well: hand or body soap bubbles that pop near your eyes; spray paint that blows back into your face; or slashing cleaning solutions. If you are working with any kind of toxic chemicals wear protective goggles or other protective eyewear and take care to handle solutions delicately, so that they do not splash. **Why is this important?:** Chemical exposure that caused eye-related chemical burns represent a serious ocular emergency that can ultimately cause serious damage or blindness. Don't become a victim if you can avoid it!
6. **Keep Children Safe and Start Young with Eye Protection.** Too many people realize in adulthood that they should have thought of protecting their eyes when they were young. So it is never too early to start with your children. The World Health Organization notes that as much as 80% of a person's lifetime UVR exposure occurs prior to the age of 18! That is because children spend lots of time playing outdoors especially during the summer. Children should also wear sunglasses and hats and it is also good to apply sunscreen, especially on their faces. **Why is this important?:** A child's ocular lenses do not filter out UV
- light as efficiently as an adult's. This means children can sustain eye damage more readily.
7. **Wear Eye Protection During Outdoor Activities.** Dust or sand in your eye is also an environmental threat to your eyes. Foreign bodies like them can cause abrasions to the eye and the cornea of the eye. Most corneal injuries heal in a day or two without too much pain or difficulty. But if the abrasion involves woodworking or yardwork, there is a greater risk of long-term injury. Look to prevention first by using safety glasses or other protective equipment to shield your face and eyes from potential damage. Even the condition of dry eyes can increase your risk of corneal abrasion. **Why is this important?:** Eye injuries must be treated quickly to avoid the minimum amount of eye damage.
8. **Eat Healthy and Drink Plenty of Water.** Did you know that what you eat has the power to affect how well you see? Many foods are rich in nutrients that could improve your eyesight and help prevent the development of long-term vision problems. Lutein and zeaxanthin are antioxidants known to help resist macular degeneration and cataracts. Adding a supplement or foods high in Vitamins C and E and zinc can assist those with symptoms of age-related macular degeneration. During the summer, people are more likely to become dehydrated which can affect their eyes. **Why is this important?:** Serious dehydration makes it harder for the body to produce tears, leading to dry eye symptoms and other vision problems. Drinking plenty of water each day can prevent and reverse many of the negative effects of dehydration, as well as providing fluid for normal eye function. Nutrient-rich foods that are also tasty can be added easily to everyone's diet.
9. **Use Eye Drops.** Sometimes you need to use some kind of eye drops to minimize pain or manage other eye problems. This can happen after certain kinds of eye surgeries and other eye procedures. If you have allergies that make your eyes feel tired or excessively itchy, you may also benefit from eye drops. **Why is this important?:** Check with your eye doctor if your symptoms don't go away after using eye drops as this may be a sign of something more serious.
10. **Get Adequate Sleep.** Even with a busy lifestyle, you need to know that your eyes are counting on you to be rested! Rested eyes are important so that you don't suffer decreased cognition on visual tasks such as driving safely, attending to potentially dangerous activities like cooking or caring for children. When you are tired, your eyes are more likely to feel dry which encourages you to rub them and can increase the likelihood of exposure to irritants and diseases. **Why is this important?:** By taking a proactive approach to eye care during the hot summer months, you can minimize the amount of time you need professional eye care!

Article reprinted from www.centerforvisionloss.org



STUDENT LOAN RELIEF BENEFIT

The Board of Directors is proud to offer StuLo as a new benefit to all Healthy Vision Association members.

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To register visit www.mystulo.com or call 888-543-6627. Group code: HealthyVision

What You Should Know Before Buying Sunglasses

Summer's almost here, so beware the brightest of sunlight! To protect your eyesight, the most important recommendation you need to follow is to wear sunglasses that block ultraviolet radiation whenever you go outside during daylight hours, according to the National Eye Institute. This is true for everyone, no matter what age, year round.

Ultraviolet radiation is the energy radiated by the sun that arrives on Earth in wavelengths too short for us to see. Both UVA (waves that are 320 to 400 nanometers long) and UVB radiation (290 to 320 nanometers long) can be harmful to your eyes. The fix, though, is simple.

"The recommendations are that eyeglasses should block UVA and UVB radiation," said Dr. Andrea Thau, president of the American Optometric Association. When shopping for sunglasses, look for a tag or label that says 100% protection against both UVA and UVB or 100% protection against UV 400.

The UV 400 designation simply means the lenses will block radiation equal to or shorter than 400 nanometers, which covers both UVA and UVB rays, Thau said.

Thau and Dr. Justin Bazan, a doctor of optometry and medical adviser to The Vision Council, a nonprofit trade organization for optical industry manufacturers and suppliers, recommend purchasing sunglasses from a reputable retailer.

These include "eyecare provider offices, or brick-and-mortar and online department stores and sunglass specialty shops -- as they offer sunglasses that meet the necessary standards for proper UV protection," Bazan wrote in an email. He adds that shoppers "should be wary when purchasing sunglasses from online auction sites, street vendors and flea markets, as sunglasses available at these locations may not meet the necessary standards for proper UV protection."

That's all good, but does UV protection wear off over time?

It doesn't, says Dr. Jeff Pettey, assistant professor of ophthalmology at the Moran Center University of Utah and a spokesman for the American Academy of Ophthalmology.

"The UV protection is embedded," Pettey said, explaining both the technology and the process have changed over time, advancing far enough that "routinely, even on the cheapest pair of glasses," the protection is built in for life.

"In the testing we've done, we've never had a pair of sunglasses that didn't meet that UV protection," Pettey said.

He acknowledges that in the early 1990s, tests on children's sunglasses showed that not all lived up to their UV protection claims, but more recently, "we just have not seen that."

Still, he suggests buying from a reputable retailer just to be safe.

"There's no guarantee, because you can't say for certain where your glasses are coming from," Pettey said, adding that there's a test you yourself can perform at any local optical shop that has a UV light meter.

"You can take your glasses in and have them tested," said Pettey. This is a handy test for when you doubt your sunglasses have the UV protection claimed by a retail tag or if they're simply old and you want to make sure.

As far as a "hard requirement," UV protection is it, he said. Tint doesn't matter, polarization doesn't matter, and although bigger is always better, "UV protection is the essential piece."

The inessentials, though, may also play a role in eye health.

Beyond UV rays

Thau says there are two parts to sunglass protection: One is non-visible radiation, and the second has to do with visible light -- how much brightness they block.

"When you're in the bright sun, like the beach, you do want something 75% or darker to block you from visible light," Thau said. Too much exposure to visible light "does bleach your receptors, and some studies have indicated it can impair your night vision and your color vision perception."



Yet blocking visible light has a downside if your sunglasses are not up to UV snuff, suggests Dr. James H. Diaz, an environmental medicine specialist and anesthesiologist.

“The darker the sunglass lenses, the more the pupils will dilate and allow more UV light to enter the eye,” Diaz wrote in an email. This is true of blue light, which ranges in length from 400 to 440 nanometers.

“The longer the retinas are exposed to unfiltered blue light, the greater the risk of macular degeneration,” Diaz said. However, the National Eye Institute does not list protection against blue light as necessary when purchasing sunglasses. In fact, research has shown blue light exposure is good for us, as it helps regulate our circadian rhythms and so affects both mood and cognition.

“Orange and yellow lenses provide the best protection from blue light, and blue and purple lenses provide the least protection,” Diaz said.

Thau noted color is not crucial in protecting eye health. “Most popular colors are gray, green and brown. They are the least distorting for color perception, with gray being the most neutral,” she said.

People who have color vision deficiencies generally find that they see much better with brown lenses, while “green seems to give more contrast,” said Thau.

Whether you opt to filter out blue light or not, a good pair of UV-blocking sunglasses can protect both your short-term and long-term health.

Protect your thin skin

“Skin around the eyelid is the thinnest in the body, so it is susceptible to skin cancers,” Thau said. This thin skin is most likely to develop basal cell and squamous cell cancers, so the recommendation is to wear the largest pair of sunglasses possible to protect the eyelids and surrounding skin.

Meanwhile, Pettey warns that cancers of the eye itself, including squamous cell carcinomas and malignant melanomas, also can result from sun exposure.

“The same damage that occurs to our skin occurs to the eye,” he said: specifically “eye burn,” a form of short-term damage similar to a sunburn.

Thau says sun exposure can also cause photokeratitis, an inflammation of the cornea, with temporary symptoms of blurry vision, light sensitivity and a

burning or gritty sensation. Too much sunlight may also lead to a thickening and/or yellowing of the conjunctiva, the membrane covering the eye. Though unsightly and annoying -- your eyes will feel too dry when this happens -- this doesn't cause blindness, says Thau.

Other conditions caused by too much unprotected time in the sun may have longer-term consequences, according to Pettey. Pterygium, for instance, is a growth of fleshy tissue that can cover part of the cornea and hurt your vision. This is sometimes called "surfer's eye."

"Inside of the eye, as far as function, increased UV light leads to increased progression of cataracts and also likely increased progression of macular degeneration, both of which are conditions that cause loss of sight," Pettey said.

Thau says the latter is the more serious of the two complications.

"Cataracts can be removed surgically, but macular degeneration is yours for life," she said. "It literally causes damage to the photo receptors. It's like damaging film in a camera, and you cannot replace the film."

One other long-term danger of looking directly at the sun is solar retinopathy. Just like your mother told you, don't ever look directly at a solar eclipse, such as the one coming August 21.

"If you were to look at that level of radiation, even for a few seconds, without the brightness of the light telling you to look away because it would be painful, you can actually cause burns on the retina in the back," Thau said. These burns cause permanent damage to your sight, and regular sunglasses are not enough protection for a solar eclipse.

Though the sun is the main cause of UV radiation damage, artificial sources such as tanning beds, lasers and welding machines also produce UV radiation that might damage vision.

One other consideration at least for some is their location on the globe, Diaz said.

Polarized lenses

"We have more sunny days in the South, especially in Florida, and the West, especially in California, than in other areas of the US, and therefore, we see more sun-related injuries," said Diaz, who has researched this topic. Naturally, this is also true for the sunniest spots around the globe.

"Another problem in the coastal South and all coastal areas is the reflected magnification of UV radiation off of surface waters," Diaz said. UV-blocking sunglasses protect against these reflections, but there is a risk of the same complications that result from direct sunlight.

Beyond the standard UV recommendations, does polarization matter?

"I like to fish, and polarized lenses will reduce reflection and glare off surface waters and allow one to see at a greater depth," Diaz said.

Thau says this is not mandatory, "it's just an optional add-on benefit you can have."

Though most of us are concerned with eye health, the Vision Council reports that only 31% of Americans always wear sunglasses when outside.

They're not merely a fashion statement, insists Thau, but if that gets you to wear them, go with it. She herself owns five pairs and has been known to put them on even when sitting in a bright room.

To be safest, Thau recommends that an annual comprehensive eye examination with a credentialed doctor to learn more about eye health and which sunglasses might be most beneficial in any given circumstance.

"It's also important for children to start with some protection early, because it's cumulative damage over time," Thau said. "My family does not walk out the door without their sunglasses on, except at night."

*Article reprinted from www.cnn.com
By Susan Scutti*

7 Ways To Start Using Summer Wisely

- 1. Go on holiday** – Studies show that spending money on experiences, such as a concert, sporting event or vacation, instead of material objects can make you happier, and summer is the perfect time to treat yourself with a trip. But don't feel pressure to spend a fortune on a far-off destination. With the weather warming and tourist season in full swing, you won't have to journey far. Stay in-state and see what neighboring towns have to offer.
- 2. Play at the beach** – Sand and surf make the beach a prime spot to enjoy some fun and physical fitness. Whether you take a walk or join in a game of beach volleyball, the sandy terrain will provide you with less stability, making for a more challenging workout.
- 3. Indulge in longer days** – Many people find themselves affected by the amount of sunlight they're getting. For some, a lack of light can even cause what's known as seasonal affective disorder. Lift your spirits and take advantage of summer's extra hours of sunlight by spending more time outdoors. Do something for yourself and sit down in the grass with a good book or take a relaxing stroll, but make sure to wear sunscreen with at least 30 SPF.
- 4. Queue up the color** – From flower-lined streets to designer runways, summer is a season full of color. Colors can have a strong impact on our feelings. Light colors are associated with positive emotions, while green often suggests relaxation, yellow is cheerful and blue is comforting. So let summer's vibrant hues inspire you. Dress in bold shades, fill your house with colorful bouquets and take hikes through green pastures.
- 5. Find a farmers' market** – Summer is growing season, and most farms are brimming with fresh fruits and vegetables. Swing by your nearest farmers' market and reap the health benefits of homegrown produce. With growers often at their stands, you can ask how crops are produced, including the amount of pesticides or additives used. Search for superfoods such as blueberries or broccoli, which are not only nutrient-dense but have proven cancer-fighting abilities.
- 6. Meet your neighbors** – Warm weather usually draws people out of their homes. Whether it's to a summer festival or a neighborhood park, head into town and spend time in your community. Being a member of a group is vital to happiness. Studies show a sense of belonging can increase motivation and persistence. And summer is the perfect time to meet people and be a part of something.
- 7. Take a dip** – The local pool is a hot spot during the summer season. Not only does water give you a place to cool off, but swimming laps provides a first-rate, low-impact workout that will have you burning 400 to 600 calories an hour. Change up your stroke to tone various muscles: Freestyle works the body all over, the backstroke strengthens the core, the breaststroke helps shape the legs and butt, and the butterfly increases upper-body strength.

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HVA SUPPORTS HEALTHY VISION AROUND THE WORLD

Every year, Healthy Vision Association sponsors a variety of charitable organizations. Here is a list of the organizations we currently, and are continuing to, sponsor.

- **Prevent Blindness** – <http://www.preventblindness.org>
- **Optometry Giving Sight** – <http://www.givingsight.org>
- **America's VetDogs** – <http://www.vetdogs.org>
- **Himalayan Cataract Project** – <http://www.cureblindness.org>
- **The Seeing Eye** – <http://www.seeingeye.org>
- **United States Association of Blind Athletes (USABA)** – <http://www.usaba.org>
- **Eye Thrive (Formerly Eye Care Charity of Mid-America)** – <http://www.eyethrive.org>
- **Macula Vision Research Foundation** – <http://www.mvrf.org>
- **Children's Center for the Visually Impaired (CCVI)** – <http://www.ccvi.org>
- **Guiding Eyes for the Blind** – <http://www.guidingeyes.org>
- **Team Activities for Special Kids (TASK)** – <http://www.tasksports.org>
- **Mercy Ships** – <http://www.mercyships.org>
- **Delta Gamma Center for Children with Visual Impairments** – <http://www.dgckids.org>
- **1Touch Project** – <http://www.1touchproject.com>
- **ARCHS FBO Kids Vision for Life** – <http://www.kidsvisionforlifestlouis.com>
- **Unite for Sight** – <http://www.uniteforsight.org>
- **Folsom Project for the Visually Impaired**
- **MUOT Tiger OT Low Vision Program**
- **NY Metro Blind Hockey Team** - www.nymbh.org
- **St. Louis Blues Blind Hockey Club** - www.stlbbhc.com
- **United in Stride** - www.unitedinstride.com
- **Thompson Center for Autism - University of Missouri Autism and Visual Impairment Outreach** - <https://thompsoncenter.missouri.edu>

HVA is very fortunate to have an extremely impressive board of directors. Their real world success and experience and their overall commitment and care have been pivotal to the growth and success of HVA. Please feel free to visit the membership site for more information on the individuals that make up the board of the Healthy Vision Association.

HVA SCHOLARSHIP RECIPIENTS

The Healthy Vision Association is proud to recognize the scholarship recipients from these Optometry schools:

- Chicago College of Optometry
- Indiana University School of Optometry
- Inter American University of PR School of Optometry
- Kentucky College of Optometry
- MCPHS University
- New England College of Optometry
- Nova Southeastern University
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The HVA Health Chronicle is published by:
Healthy Vision Association

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