

INSIGHTS

The History of Sunglasses

It's been said that the Roman emperor Nero may have watched gladiator fights through a flat, polished emerald, creating the predecessor to the first pair of sunglasses, back in the 1st century AD. China is credited with inventing dark lenses in the 12th century, when judges hid their emotions in court with flat, smoke-colored quartz lenses.

Some historians say that tinted glasses were used to help people suffering from photosensitivity related to syphilis in the 17th century. In the mid-18th century, an English optician named James Ayscough experimented with tinted lenses, believing that the blue- or green-tinted lenses could help correct vision issues.

But mass-produced sunglasses as we know them today can be traced back to 1929, when Sam Foster introduced them to beachgoers who wanted to shield their eyes from the sun on the boardwalk and beaches of Atlantic City.

In the early 1930s, the Ray-Ban brand of sunglasses was created to cut glare for U.S. Air Force pilots. This "aviator" shape lens soon became popular with the general public, and still is today. In the 1950s, James Dean made the Wayfarer model popular in "Rebel Without a Cause," and Audrey Hepburn made them a recognizable fashion accessory in the 1961 classic film, "Breakfast at Tiffany's."

Since then, sunglass styles have gone through numerous changes. Whether

18th century turn-pin spectacles like these provided eye protection long before sunglasses were considered "cool."



Sporting Sunglasses

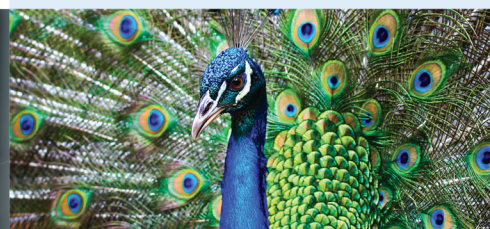
NASCAR'S Jeff Gordon wears sports sunglasses at races and is considered by many to be a trendsetter in shades.

it was Marilyn Monroe's cat-eye shades, Andy Warhol's retro square lenses, Jackie Onassis' oversized sunglasses, Tom Cruise's aviators from "Top Gun," or NASCAR's Jeff Gordon's sports sunglasses, there's a style for everyone.

But style and blocking sunglare aren't all that sunglasses are about. When you're choosing sunglasses, it's important to look for lenses with ultraviolet (UV) protection from harmful rays that can lead to eye diseases, such as macular degeneration, a leading cause of vision loss in people over 60. Sunglasses should block 100% of both UVA and UVB rays and screen out 75 to 90 percent of visible light. Be sure to ask your optometrist which sunglasses are right for you.

EYE CANDY

The Peacock's Many "Eyes"



When a peacock displays its colorful tail, it feels like a hundred eyes are looking at you. The peacock's distinct "eyesspots" are colorful patterns that a male peacock displays to court a female. It's believed that the more eyespots a peacock has, the bigger his tail and the more attractive he becomes to a potential mate.

Peacock eyespots have a long history of symbolism. In Greek mythology, the servant Argus had one hundred eyes, keeping several open while he slept. In the myth, Hera put the eye pattern on the peacock's tail to honor him after his death.

Early Christian paintings used the eyespot to represent the all-seeing eye of God. As a result, the peacock's feathers became a decorative design on medieval tombs. Native Americans believe the peacock is a symbol of dignity and beauty, and to Buddhists, it's a symbol of wisdom. The peacock is the national bird of India.

Peacocks, which live about 20 years, grow their tail feathers at around age three, and shed them every year after mating season.

EYE-Q

Q: Why do pirates wear patches?

See answer on back.



Should You Still Drive at Night?

When the sun goes down, driving can become hazardous, particularly for the elderly. The American Medical Association says that declines in vision, cognition and motor skills can make older drivers more vulnerable to crashes. And there are more and more older drivers on the road. According to the American Automobile Association (AAA), one-quarter of all drivers will be age 65 or older by the year 2025.

Added Risk for Nighttime Drivers

Nighttime driving presents many real dangers, because without natural light, the eye's field of vision is much smaller, making it more difficult to see. A driver's depth perception, peripheral vision and ability to distinguish colors all worsen in low-light conditions. Aging can worsen matters. The National Safety Council reports that a 50-year-old driver may need twice as much light to see as well as a 30-year-old does.

What's more, conditions that affect vision—particularly at night—can develop or worsen with age. People with cataracts, which cause a clouding of the eye's lens, can have night blindness, affecting central vision and the ability to see in poor lighting conditions. Age-related macular degeneration (AMD), reduces macular pigments, which help protect the eyes from light and glare, decreasing night vision. And if your eyeglasses prescription isn't up to date or you have an uncorrected astigmatism, which can cause blurriness or distortion, night driving can be even more difficult.

What Older Patients Can Do

But you can take steps to help improve your safety when driving at night. Use

anti-glare lenses to reduce strain, and avert your eyes from oncoming bright headlights. Keep your windshield and rearview mirrors clean, and dim the lights on your dashboard. Try to avoid driving at dusk, which forces the eyes to continually adjust as night falls.

See Your Optometrist Once a Year

One of the best ways to protect yourself when driving at night is to make sure you have your eyes checked regularly. Your optometrist can screen your eyes for changes in vision that require correction with eyeglasses or contact lenses and check for signs of conditions that can affect your overall ability to see, including cataracts and AMD.

In some states, people over the age of 70 are required to take a vision test when renewing a driver's license. Whether your state requires testing or not, it might be a good idea to take a senior driving course, which may even help reduce your insurance premiums. If driving at night has become too hazardous for you, limit your driving to daytime or have someone else do the driving for you.

The Nightmare of Nighttime Driving

Doctors recommend regular eye examinations for older patients, whose nighttime vision can decrease.



Driver's Side Cataracts



Can driving a car increase your likelihood of developing cataracts? A recent study found a correlation between driver-side automobile windows and increased rates of cataracts, a clouding of the eye's lens that can make things appear foggy or out of focus.

Though windshields are required by U.S. law to be made with laminated glass, which offers you greater protection from damaging UV rays emitted by the sun, side windows are not. Side windows vary in levels of UV-A protection, depending on the car's make and model. As a result, they tend to allow higher levels of damaging rays to reach drivers' eyes.

During the study, researchers found that windshields blocked an average of 96 percent of UV-A radiation, but driver-side windows blocked far less—an average of 71 percent. Surprisingly, luxury car windows were not necessarily better at blocking UV-A rays.

You can protect your eyes by wearing polarized, wrap-around sunglasses with UV protection when traveling in a car. You may want to drive with the windows closed and add UV-A-blocking window tinting, where it is legal.



A Feast for the Eyes

When you're planning dinner tonight, cook a little something special for your eyes. Some foods are packed with vitamins that can support your eye health. Spinach is rich in lutein and zeaxanthin, which may increase the pigment density in the macula and lower the risk of age-related macular degeneration (AMD). Sweet potatoes have beta-carotene, an antioxidant which converts into vitamin A that may help slow the progression of AMD. Some doctors believe that turmeric may also prevent damage to the macula. Here are two eye-health recipes courtesy of Jennifer Perillo of *In Jennie's Kitchen* www.injennieskitchen.com:

Roasted Sweet Potato, Spinach & Pecan Salad

Serves 4

Ingredients:

- 4 cups organic baby spinach, rinsed and dried
- 1 sweet potato, cut into half-moons or triangles
- ½ small red onion, finely chopped
- ½ cup pecan halves, toasted and chopped (divided)
- 2 tablespoons Champagne Vinaigrette salad dressing

Directions:

1. Preheat the oven to 450 degrees. Brush the sweet potato pieces with olive oil and place on a baking tray. Cook in the oven for 10 minutes and then flip the potatoes over and cook for 10 more minutes.
2. Add the spinach, cooked sweet potato, onion and half the pecans to a deep bowl.
3. Spoon the dressing on top, and stir to mix everything.
4. Divide the salad among 4 dishes, or arrange on a large serving platter. Sprinkle the remaining pecans on top, and enjoy!

Zesty Citrus, Ginger & Turmeric Tonic

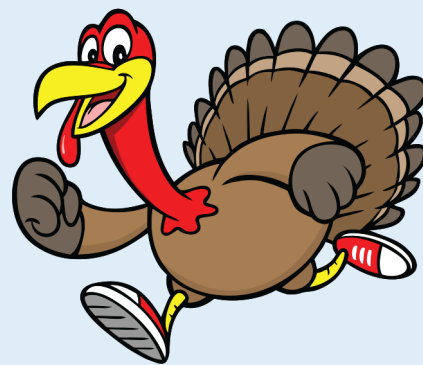
Makes 1 cup

Ingredients:

- 1 lemon, peeled and cut into quarters
- 1-inch piece of fresh ginger, cut into pieces
- 1-inch piece of fresh turmeric, broken in half
- 5 clementines, peeled

Directions:

1. Add the clementines, lemon, ginger and turmeric to the bowl of a blender. Blend until smooth.
2. Set a fine mesh strainer over a bowl. Pour the mixture through in batches, gently pushing down the pulp with a rubber spatula to release the juices. Discard the pulp. You should have about 1 cup of juice when finished. Feel free to double or triple the recipe as desired. You may need to blend it in batches depending on the size of your blender.



Bird is the Word

We often think about our heart health—and our waistlines—when we are choosing what to eat for dinner, but don't forget your eyes. Consider serving ostrich or turkey, which are loaded with vitamins that can help keep your eyes healthy and prevent disease.

Both birds have plenty of zinc, which is essential for maintaining healthy eyes. Zinc helps vitamin A create melanin, a pigment that protects the eye from ultraviolet light. Eating zinc-rich foods may lower your risk for age-related macular degeneration, a leading cause of vision loss in people over age 60. Three ounces of turkey provides nearly two mg of zinc—about 20 to 25 percent of the recommended daily intake of zinc for adults.

Turkey and ostrich are also rich in niacin, a B-vitamin that may protect the eyes against the formation of cataracts, clumps of protein that collect on the lens of the eye, causing cloudy vision. Three ounces of ground ostrich provide about a quarter of your daily niacin allowance, while a three-ounce serving of turkey packs about half. So don't be afraid to gobble, gobble!

Hyperopia: Far and Away a Common Vision Problem

If you have difficulty focusing on objects that are close, but can see those in the distance clearly, you may have hyperopia, or farsightedness. It's caused by a shorter than normal eyeball that makes light rays focus behind the retina, rather than directly on it.

Children can be born farsighted, but as they grow, their eyeballs lengthen, often correcting their vision. If your child suffers from headaches or seems to strain to see things that are close, he or she may have the condition, which tends to run in families. Other symptoms and signs include intermittent blurry vision, frequent blinking, eye fatigue and pain in and around the eyes.

Adults can have hyperopia, too, but it's not the same thing as presbyopia, an age-related condition that makes objects that are close appear blurry. Presbyopia tends to begin around age 40, when the lens of the eye becomes harder and less elastic, making it more difficult to focus up close. You may even notice that you need to start holding

reading material farther from your eyes to see it more clearly. Wearing reading glasses can help you see things that are close up.

Hyperopia is most common in children, affecting about eight percent of six-year-olds. By the age of 15, just one percent of teens have farsightedness. Early detection can help prevent certain complications such as strabismus, which is a misalignment of the eyes, and amblyopia, or "lazy eye," when one eye doesn't develop as well as the other. Other conditions that can occur with hyperopia include binocular dysfunction, when the eyes cannot coordinate properly, leading to headaches and double vision, and accommodative dysfunction, when the eyes may have problems maintaining prolonged focus, particularly up close.

If you suspect that your child or that you have hyperopia, visit your eye doctor who can prescribe eyeglasses or contact lenses and check the eyes for signs of complications.

Focusing on Hyperopia

If you have difficulty focusing on close objects, but can see them clearly in the distance, you may have farsightedness.



What is Drusen?

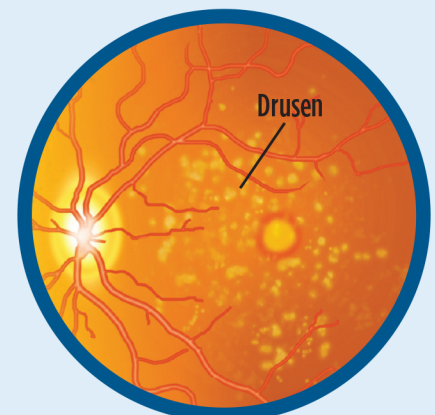
Drusen are small yellow or white lipid (fatty protein) deposits that form in the eye as we age. Smaller, hard drusen typically do not cause problems, but the presence of soft drusen may increase the likelihood of developing age-related macular degeneration (AMD), a leading cause of vision loss in people over the age of 60.

Most people over 40 have a few drusen, but increased amounts of soft drusen can be early signs of dry AMD, the most common type, in which light sensitive cells in the macula slowly break down, diminishing central vision. People with early stages of dry AMD typically have small drusen, while those with advanced dry AMD often have larger drusen and a blurred spot in the center of their vision.

Your optometrist can identify and monitor the presence of drusen and signs of AMD through routine eye examinations and may offer supplements and lifestyle changes to prevent progression.

Your Optometrist Can Spot Drusen

Increased drusen deposits in the eye can be an early sign of age-related macular degeneration.



No Stigma in Astigmatism?

The cornea, the clear dome on the front surface of the eye, and the lens inside the eye are supposed to be symmetrically round, like a basketball. But in some people, the cornea or the lens can be shaped more like a football. This abnormal, yet common curvature is called astigmatism, and it prevents the eye from focusing light evenly onto the retina, the light-sensitive tissue in the back of the eye. Like nearsightedness (myopia) or farsightedness (hyperopia), astigmatism is a refractive error, meaning that the shape of the eye prevents it from bending light correctly.

Astigmatism causes distorted and blurred vision—both close and far. It can feel like you're looking at a fun house mirror. Other symptoms and signs include eyestrain, headaches and squinting, and it can make driving at night more difficult. Uncorrected astigmatism can impact your daily life and affect a child's ability to perform in school and during sports. People with astigmatism often have other vision problems, such as myopia or hyperopia—or both—at the same time.

Though the cause of astigmatism is unknown, it can be hereditary and it's usually present at birth. In fact, most people have some degree of astigmatism, though they might not notice any symptoms. It can, however, worsen with age. Sometimes, astigmatism develops after an eye injury, disease or surgery.

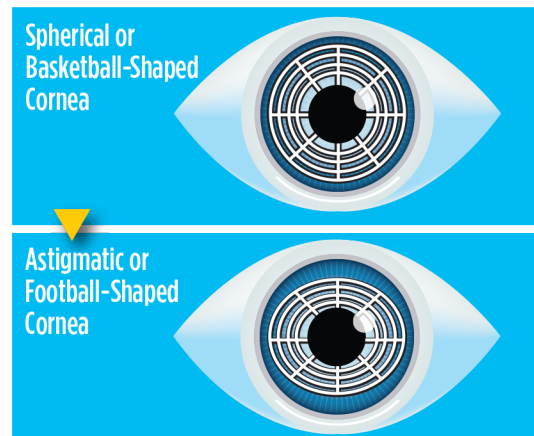
Your optometrist can diagnose astigmatism through a comprehensive eye examination, which tests your visual acuity—how well you can see close and far—evaluates the curvature of the cornea and measures how your eyes focus light. Astigmatism is measured in diopters. Most people have at least a

slight astigmatism of between .5 and .75 diopters. People whose eyes measure 1.5 diopters or more typically require contact lenses or eyeglasses to see clearly. People with keratoconus, a rare condition in which the cornea thins and becomes cone-shaped, can have a measurement of 20 diopters or more, possibly requiring a corneal transplant.

Corrective lenses, such as eyeglasses and contact lenses, help people with astigmatism to see clearly. Toric lenses are soft contacts specially made for people with astigmatism. Made of hydrogel material or silicone, they have different powers in different locations, called meridians, to correct varying amounts of myopia or hyperopia. While regular contacts have the same power in all meridians, toric lenses vary, so they are designed not to rotate when you blink. It may take trials of several brands of toric lenses before you find the one that best fits your unique eyes.

Some people with astigmatism opt for refractive surgery, in which a laser beam reshapes the cornea's curve. Newer surgical techniques can remove irregularly curved lenses from the eyes and replace them with lens implants.

Ask your doctor what's best for you.



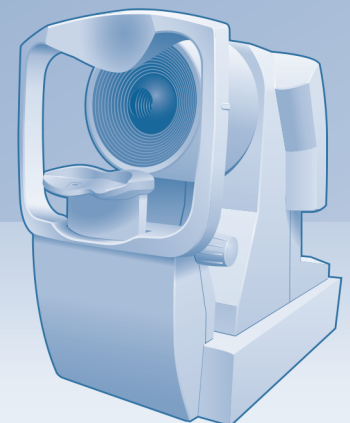
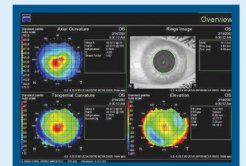
What Is a Corneal Topographer?

A standard corneal topographer uses computer imaging technology to create a three-dimensional map of the surface curvature of the cornea, the “front window” of the eye. The device helps doctors diagnose, monitor and treat conditions that affect the cornea. This includes astigmatism, in which the normally spherical cornea is oblong-shaped, like a football, and keratoconus, a condition in which the cornea thins and becomes cone-shaped.

A corneal topographer projects a series of illuminated rings onto the surface of the cornea that is then reflected back into the device. The device uses these rings to generate a detailed topographical map of the cornea, much like an elevation map of a mountain.

This helps your optometrist measure the cornea's steepness in any location to determine its overall shape and measure levels of astigmatism. It helps identify unusual areas on the cornea, helps fit contact lenses, assists in eye surgery and determines dryness on the surface of the eye—all which can affect vision.

The test takes just seconds and it is completely painless.





Q: My eyes get itchy and red the same time every year. What can I do?

A: You're not alone! Many people get the symptoms of allergic conjunctivitis, which is inflammation of the eye caused by an allergic reaction to pollen or mold spores. Their eyes itch, burn and become red and watery. Sometimes, they get swollen eyelids. They may also get sniffing, sneezing and nasal congestion.

Here in my part of Texas, it tends to happen seasonally, often in the winter when the cedar pollen counts rise. I know I can count on it right around mid-December to February, myself. That's often when I see more patients who, like me, are allergic to cedar pollen. But it can also happen year-round as a response to dust mites, pet dander, chlorine, air pollution and feathers in bedding.

If you know you're allergic to certain pollens, try to stay indoors when counts are high. Take frequent showers to remove pollen from your hair and eyes, so it doesn't wind up on your pillow. If you have to go outside, wear wrap-around sunglasses to shield and protect the eyes. Of course, avoid pets that make you sneeze.

Try to resist the urge to rub your eyes, because that will often release more histamines, making your symptoms worse. You should minimize wearing contact lenses, which can trap allergens, but if you do wear them, use 1-day

contacts so they don't bind to allergens from the day before.

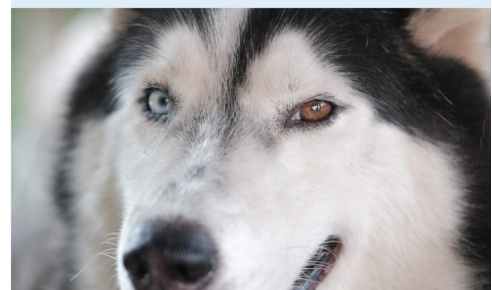
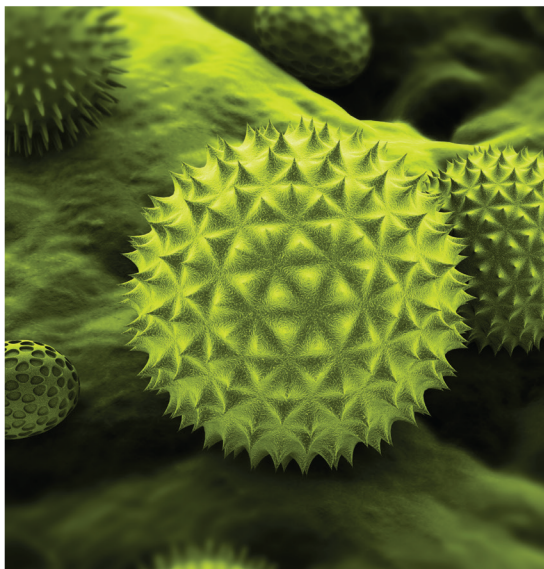
There are several medications on the market today that can help alleviate symptoms. Over-the-counter artificial tears lubricate the eye to help remove allergens from tear film. For mild to moderate allergic conjunctivitis, topical and oral antihistamines or decongestant drops, which you can find at a pharmacy or supermarket, can provide relief.

If these treatments do not work for you, call your optometrist, who may prescribe mast cell stabilizers, such as Pataday™, for itchy eyes. Sometimes, I prescribe ophthalmic steroids to treat acute severe allergies, but only for a week or two to help minimize the long-term effects of steroids.

If you know that an allergy season is coming soon, you should consider using treatments for two to four weeks before it hits your area to help minimize the effects. Feel better!

If You're Just Itching for Relief...

If you're allergic to certain pollens, try to stay indoors when counts are high and take frequent showers to remove pollen from your hair and eyes, so it doesn't wind up on your pillow.



Eye-catching Eyes

Did you know actress Mila Kunis has one brown and one green eye? And she isn't the only star to have heterochromia, when a person's irises are two different colors. Actor Christopher Walken and Nationals pitcher Max Scherzer also have two different colored eyes. Though it's uncommon in people, dogs, cats and horses frequently have heterochromia.

Some people are born with it, while others develop it after birth. Though it doesn't cause any symptoms, it can be a sign of another condition, such as Horner syndrome, which is caused by a disruption of a nerve from the brain to the face. Others develop heterochromia later in life after an eye injury or after surgery. Latisse, a glaucoma medication that's also used to help grow eyelashes, can change the color of the iris.

A comprehensive eye exam can determine any underlying cause for the condition, though most people do not need treatment.

Answer to Eye-Q (from page 1)

A: Pirates wore eyepatches to keep one eye adapted to the dark, so when they went below deck they could switch the patch to the other eye and see right away.

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