



INSIGHTS

Glaucoma: When Pressure Builds To Blindness

Glaucoma is a group of eye disorders that cause damage to the optic nerve, a bundle of more than one million nerve fibers responsible for carrying information from the eye to the brain. It is a leading cause of blindness in the United States, slowly stealing vision over time. Though an estimated three million Americans have glaucoma, only half know it. This is because it rarely causes symptoms until the condition is more severe.

In the most common type, open-angle glaucoma, fluid builds up in the eye's drainage glands, causing eye pressure to increase, leading to optic nerve damage. Symptoms can include blind spots in the peripheral—or outer—vision in one or both eyes. In advanced stages, it can lead to tunnel vision.

People who are most at risk include African Americans over age 40, all people over 60—particularly Mexican Americans—diabetics, and those with a family history of glaucoma.

There's no cure for glaucoma, but it can be controlled, particularly if it's caught early. That's why it's important to have regular eye examinations. Your optometrist uses a device called a tonometer to measure your eyes' intraocular pressure. High readings can indicate a higher risk for vision loss from glaucoma. Your doctor may use other diagnostic tests as well.

**The Pressure is On**

In glaucoma, abnormally high pressure in the eye can cause damage to the optic nerve. With early detection and treatment, you can protect your eyes from serious vision loss.

Treatments can include medication to lower intraocular pressure or to reduce fluid in the eye, or surgery, depending on the severity of the disease. If you're diagnosed with glaucoma, it's important to take your medications as prescribed.

You can take steps to help prevent glaucoma through regular moderate exercise, such as walking or jogging three times per week. Though exercise has been shown to lower intraocular eye pressure, it's best to avoid exercise that requires your head to remain lower than your body, such as some inverted yoga positions, which can often raise intraocular pressure. Ask your doctor which exercise is right for you.



EYE CANDY

How Far Can We See?



As a child, did you ever stand along the shore and wonder if you could see Europe or Asia? The earth curves out of sight at about three miles, but if the world were flat, would you be able to see France or China?

To determine how far the human eye can see, look to the cosmos. The farthest object visible to the naked eye is the Andromeda galaxy, more than two million light years from Earth. That's because it emits enough light to reach our eyes on a dark night.

Scientists have concluded that some people can see a faint glimmer of a candle flame from as far as 1.6 miles (2.6 km), though dust and pollution on earth typically prevent you from seeing far.

From five or six feet above ground, it's likely that you can see only about two or three miles across the ocean. But if you stood atop a peak as high as Mount Everest, you may be able to see as far as 230 miles away—if the clouds do not get in the way.



EYE-Q

Q: Can a goldfish close its eyes?

See answer on back.



Which Eye Drops are Right for You?

Have you ever visited the “Wall of Tears” at your local supermarket or pharmacy? It has shelves of eye drops to relieve everything from dry eye to red eye. But are they good for your eyes?

Some over-the-counter eye drops can lubricate and soothe dry, irritated eyes and even heal scratches. There are eye drops for contact lens wearers, allergy sufferers, and computer users. With so many eye drops available, here’s what you need to know:

Lubricating drops: Also known as artificial tears, these drops can provide relief for dry eyes caused by computer eye strain or tiredness. They work by supplementing your natural tears to add moisture, making your eyes more comfortable. Some contain additives that can further irritate the eyes, so you may consider preservative-free drops. Though gel drops can help more severe cases of dry eyes, they can temporarily cause blurry vision and are best used before bedtime.

Whitening drops: Whitening eye drops help reduce or eliminate red eye by shrinking tiny blood vessels on the sclera, the white part of the eye. Though these decongestant eye drops make your eyes appear less red, they can worsen dry eye symptoms when used for long periods of time. If you have chronic red eye, be sure to check with your doctor, as it could be the sign of a serious condition.

Allergy drops: These drops are made to treat itchy, red, watery, and puffy eyes caused by allergies by reducing the histamines in the eyes.

Rewetting drops: These are specially formulated to relieve dryness for contact lens wearers, who tend to blink less often. It’s especially important to use rewetting drops made specifically for use with contact lenses, because other drops can damage contacts.

Homeopathic drops: Formulated with natural active ingredients, such as botanical extracts, various formulations of homeopathic eye drops can relieve symptoms, including burning, dryness, irritation, redness and watering.

When administering eye drops, always start by washing your hands with soap and water to avoid getting bacteria in your eyes, and never let the bottle touch your eyeball.

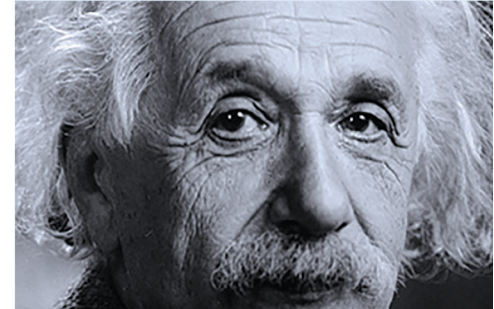
Consult with your doctor before choosing an over-the-counter eye drop and if symptoms worsen, or if you notice any of these symptoms: green, yellow, or bloody pus in your eye, flashing lights, floaters, fever, pain or extreme light sensitivity.

The Wall of Tears

Drug store shelves are overstocked with eye drops to help relieve everything from dry eye to red eye.



Eye Didn’t Know!



It has been said that the eyes are the windows to the soul, but did you know they’re also the source of some pretty wild stories? Here are some to wow your friends and family:

Einstein’s Eyes: After Albert Einstein’s death, a pathologist removed his brain and eyes—without permission. It’s been reported that his eyes were given to his eye doctor, who kept them in a safe deposit box in New York City.

Leonard “Popeye” Perry: Ripley’s Believe It Or Not said there was a man who could make his eyes pop from his head. The Georgia man, who worked in Robert Ripley’s “Odditorium” in the 1930s, pushed his eyeballs out of the sockets to create a popping look.

Double Pupils: Though pupula duplex—having two irises and pupils in each eyeball—is extremely rare, some say that Liu Ch’ung, China’s Minister of State in 995 A.D., had it. But modern doctors say he probably had polycoria, which is the presence of two pupils in one iris.

Find The Hidden Eye Pictures



Illustration by Vic Kulihi

FIND THE FOLLOWING EYE-RELATED IMAGES IN THIS PARK SCENE:

CARROTS	CLARIFYE SM DEVICE	COLOR TEST	CONTACT LENSES
EGGS	EYE	EYEBALL	EYE CHART
EYE DROPS	EYEGLASSES	OPHTHALMOSCOPE	ORANGE PEPPER
RETINAL PHOTO	SALMON DINNER	SPINACH	SUNGLASSES



See Better with Nuts and Seeds

Your mother may have told you to eat your carrots for good vision, but raw nuts and seeds may help slow the progression of cataracts, age-related macular degeneration (AMD) and other diseases.

Certain types of nuts and seeds contain omega-3 essential fatty acids, which may protect against dry eye, macular degeneration and cataracts by promoting healthy functioning of the retina. This is because the retina has a high concentration of omega-3 fatty acids that help protect against eye diseases. Raw nuts and seeds that are high in total omega-3 fatty acids include flaxseed, butternuts, walnuts, pecans and pine nuts.

Raw nuts and seeds can also be good sources of vitamin E, an antioxidant that can decrease your risk of developing cataracts and macular degeneration by protecting cell membranes from damage caused by free radicals. Sunflower seeds, hazelnuts, almonds and peanuts have high levels of vitamin E.

Ask your doctor if you should add daily vitamin E or omega-3 supplements to your diet.

Cloudy with a Chance of Cataracts

A cataract is a clouding of the eye's lens, which focuses light rays onto the retina in the back of the eye. A leading cause of blindness worldwide, cataracts in Americans are expected to double to about 50 million by 2050. By age 80, virtually everyone will have a cataract or have had cataract surgery.

As you age, proteins in the lens can clump together, causing a cataract in one or both eyes. Symptoms include a cloudiness—as though you're looking through a foggy window—blurry vision, double vision, light sensitivity, seeing “halos” around lights, and poor night vision. Some people experience a fading or yellowing of colors. Cataracts can make it difficult to read, drive a car and even see people's facial expressions. Requiring frequent changes to eyeglass or contact lens prescriptions can also be a sign of cataracts.

Most people are at risk for developing cataracts as they age, but some people have a greater risk. This may include people with diabetes, those who have had radiation treatments for cancer, smokers, and people who have had eye surgery, particularly procedures involving the retina. Prolonged exposure to ultraviolet sunlight can also lead to the development of cataracts. Women are more likely to experience cataracts than men, and 70 percent of Caucasians over age 80 have cataracts. But people in their forties and fifties can have age-related cataracts, too.

Cataracts typically develop slowly, eventually interfering with your eyesight.

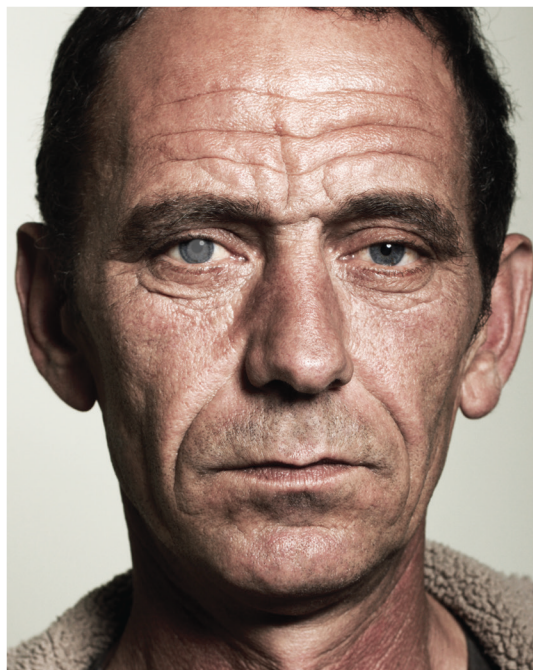
Better lighting and eyeglasses can help, but some people require surgery to replace the clouded lens or lenses in the eye when vision loss interferes with everyday activities.

To manage cataracts, make sure your eyeglass and contact lens prescriptions are up to date. Use brighter lighting and a magnifying lens when you read. Wear polarized sunglasses to help reduce glare when you're outside in the daytime, and try to limit your nighttime driving.

Though there is no proven way to prevent cataracts, you can help slow their progression by keeping your diabetes under control, wearing sunglasses when outdoors, quitting smoking and avoiding the use of steroid medications, which can often worsen cataracts.

Cataracts are Common with Age

Cataracts can cause a clouding of the eye's lens, making it difficult to see clearly.



Casting Light on Energy Efficient Lightbulbs

You may have noticed that energy-saving lightbulbs have become more prevalent than ever. That's because new federal energy efficiency regulations in the United States and Canada have led to a phasing out of traditional lightbulbs in favor of energy-saving LEDs, or light-emitting diodes. These lightbulbs use up to 75 percent less energy than traditional incandescent lightbulbs, and they can last 25 times longer.

But LEDs emit a wavelength of blue light associated with damage to the retina, the light sensitive tissue in the back of the eye, and may lead to the onset of macular degeneration. Though the sun naturally emits blue light, providing some health benefits, such as cognitive performance, our exposure to artificial blue light has increased as we spend more and more time looking at computer monitors, TV screens and cell phones. And the continent-wide switch to LEDs is increasing our daily blue light exposure.

You can protect your eyes from blue light by wearing blue light-blocking eyeglasses or sunglasses. Ask your doctor which type of protection is right for you.



7 Vision Myths You Should See Through

Did your parents tell you that if you sit too close to the television, you'll "ruin your eyes?" It's one of those vision myths you've heard, but in some cases, there can be some truth to them. Here is what you need to know:

Myth #1: You'll ruin your eyes sitting too close to the television.

There's no evidence that sitting close to the television can damage the eyes, though it can cause eye strain. If your child sits close to the TV, it could be a sign of nearsightedness, so have his or her eyes examined.

Myth #2: We're born with adult-sized eyeballs.

Though babies seem to have big eyes, a child's eyes grow and change with their bodies. This may account for why children start to require eyeglasses as they grow older.

Myth #3: Reading in dim light will harm your eyes.

It won't ruin your vision, but it can make it difficult for your eyes to focus, causing short-term eye strain and blurred vision. It can also make you blink less, leading to dry eye.

Myth #4: If you cross your eyes, they'll stay that way.

No, they won't. But some children can have strabismus, a disorder in which the eyes don't line up in the same direction because the eye muscles don't work properly. The treatments can include wearing special eyeglasses, eye-patches and sometimes, surgery.

Myth #5: Wearing eyeglasses can make your eyesight worse.

A long-term study of nearsighted children found that wearing the proper prescription did not cause eyesight to worsen. It is important, however, to wear the right prescription, so be sure to visit your eye doctor for an annual check-up.

Myth #6: It's okay to stare at the sun as long as you're wearing sunglasses.

The sun produces UV rays that can damage your eyes, so it's best not to look directly into it, even with sunglasses. And the most dangerous time to gaze at the sun is during a solar eclipse. You can help protect your eyes from everyday exposure to the sun's rays by wearing polarized, UV-blocking sunglasses.

Myth #7: There's nothing you can do about preventing vision loss

While not all eye diseases can be prevented, there are things you can do to reduce your risk of vision loss. This includes wearing sunglasses when outdoors, eating foods that contain lutein, zeaxanthin, or omega-3 fatty acids, and quitting smoking. Regular comprehensive eye exams can help detect eye diseases early. Meanwhile, if you experience any changes in your eye, such as blurry vision, light flashes, pain, or a sudden onset of floaters, contact your doctor.

Clarifying ClarifyeSM

Which looks better? This one, or the ClarifyeSM digital eye exam?

LensCrafters® has changed the way your doctor performs your eye exam. Instead of old technology that requires you to determine which lens makes your vision clearer—"this one, or this one"—Clarifye's advanced, digital equipment gathers five times the information about your vision than traditional technology can. New Clarifye helps take the guesswork out of your eye exam, providing more precise diagnostics.

Vision Profiler: This technology determines the surface characteristics of the front of your eye, providing precise measurements for contact lens fittings. It also measures how light passes through the eyes to help pinpoint the best corrective lens for you.

Digital Retinal Scan: Using digital retinal imaging, it assesses the health of your retina and the blood vessels in the eye, creating a unique "fingerprint" of the eye to help identify any conditions early.

Lens Profiler: This digital lens meter measures your current eyeglasses prescription to provide a baseline for your eye exam.

Ask your doctor about new Clarifye.





Dr. Joseph Atkins
Guest Optometrist
Lafayette, LA

Q: Now that I'm in my sixties, should I worry about cataracts or any other eye problems as I get older?

A: Most people will experience cataracts if we are lucky to live long enough. It's a clouding of the eye's crystalline lens that can make things appear foggy. If you've had a lot of exposure to UV light over the course of your life, you're at a higher risk for cataracts progressing faster. Also, medications such as steroids, trauma and some diseases, including diabetes, can increase your risk.

You can help protect your eyes by wearing sunglasses with both UVA and UVB protection when you're outdoors. UV protection can be clear too, so make sure it's in your eyeglasses and/or contact lenses.

As you age, your risk of developing age-related macular degeneration, or AMD, also increases. This condition causes a gradual deterioration of the macula, which is responsible for clear central vision. This one is dear to me, because my grandfather went blind from a form of AMD. Unfortunately, at the time he had it, they did not have the technology or the medications to help treat it like we do now.

Dry eye syndrome can also occur with aging. Certain medications or hormonal conditions, such as menopause, can lead to a decrease in tear production. Also, sometimes we lose elasticity in our eyelids as we get older, and can't hold tears as well.

Often, the eye's answer to dry eye is to increase tear production, but they aren't a good quality tear. Instead, your eyes water and run down your face. I've had some patients come in with watery eyes, and when I tell them they have dry eye, they say, "You're crazy! My eyes are too wet!" But these tears don't stay on the eye.

I often recommend artificial tears and dry eye supplements that may help you produce better quality tears. There are also now two prescription medications for dry eye. Additionally, punctal plugs and amniotic membranes, performed with in-office procedures, can help fight dry eye.

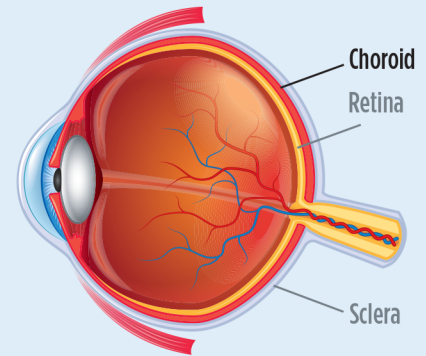
To take care of your eyes as you age, make sure you have an annual exam. Some of my patients say they don't have vision insurance, so they don't come as often. But conditions like AMD, cataracts and dry eye syndrome are medical conditions, and the treatments are often covered (up to 80%) by Medicare (after your deductible is met).

Don't Leave Home Without Them

You can take steps to protect your eyes as you get older, including wearing quality sunglasses with both UVA and UVB protection.



What is the Choroid?



The choroid, also known as the choroid coat, is a membrane in the eye that contains blood vessels and tissue. It is located between the white portion of the eye, called the sclera, and the retina in the back of the eye. It supplies blood, oxygen and nutrients to the retina, the light-sensitive layer of tissue that processes light into signals to send to the brain. It may also help cool and warm the retina.

The choroid can change thickness, helping to move the retina, which allows photoreceptors to shift into the plane of focus.

The choroid has pigment cells that absorb stray light rays, lessening glare in the eye. This pigment is what makes the eyes appear red in photos taken with a flash.

Answer to Eye-Q (from page 1)

A: No, goldfish do not have eyelids. Though they can't close their eyes, they can sleep with them open.

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