

How We See

Our eyes work just like a camera. When we look at an object, light rays reflect off that object and enter our eyes through the cornea. The lens behind the cornea focuses the rays onto the retina, which, in turn, converts the rays into electrical impulses that travel through the optic nerve to the brain. The brain converts the electrical impulses into images.

Seeing depends on this entire chain of events. But seeing clear, focused images depends largely on the lens.

Common Vision Problems

Myopia (Nearsightedness)

People who are nearsighted can see up close, but have difficulty seeing objects at a distance. Myopia is typically caused by an eye that is too long, which causes light to focus in front of the retina.

Hyperopia (Farsightedness)

Farsighted people can see objects at a distance, but have difficulty seeing up close. Hyperopia is typically caused by an eye that is too short, which causes light to focus behind the retina.

Presbyopia

Presbyopia is an age-related condition that blurs eye vision. It's caused by a gradual loss of flexibility in the eye's natural lens and surrounding muscles.

Astigmatism

Sometimes the surface of the cornea is curved more like a football than a basketball, with both flatter and steeper curves. This common irregularity, called "corneal astigmatism," causes blurred or distorted vision. This occurs when light rays are not focused at one spot to provide clear vision.

Myopia, hyperopia, presbyopia, and astigmatism require the use of bifocal or "progressive" lenses to see clearly both near and far. The important thing to remember is that cataract surgery can often correct one or more of these at the same time. This means it may be possible for you to gain clear vision with little or no need for glasses or contact lenses.

Cataracts: A Natural Part of Aging

Cataracts are the leading cause of vision loss in adults age 55 and older. A cataract is a clouding of the natural lens inside your eye. This lens, located behind the iris, works just like the lens of a camera focusing light images on the retina, which sends images to the brain. The human lens can become so clouded it prevents light and images from reaching the retina.

A cataract can be the reason sharp objects become blurred, bright colors become dull, or seeing at night is more difficult. A cataract may also be the reason why reading glasses or bifocals that used to help you no longer seem to be effective. Vision with cataracts has been described as seeing life through old, cloudy film.

But a cataract is not a "film" over the eye, and neither diet nor lasers will make it go away. Nor can it be prevented. Eye injury, certain diseases, or even some medications can cause clouding, but the majority of cataracts are simply a result of the natural aging process. The best way to treat a cataract is with surgery that removes the old, clouded lens and replaces it with a new, artificial one to restore your vision and, in many ways, significantly improve your quality of life.

Wellness

Cataract Surgery: Clarity in the Blink of an Eye

Cataract removal is one of the safest and most effective surgical procedures. In fact, more than 3 million cataract surgeries are performed each year in the United States. The operation entails making a tiny incision in the eye and inserting an instrument about the size of a pen tip to break up and remove the cloudy lens. Once the cloudy lens is removed, a cataract replacement lens or "IOL" is inserted through the same tiny incision and set into its permanent position.

What to Expect Before and After Surgery

Most people are surprised to find out just how easy and pain-free cataract surgery is. The surgery typically takes 20 to 30 minutes and most patients are back to their normal activities the very next day. The following facts will help you prepare for surgery:

- You will receive an anesthetic to numb the nerves in and/or around your eye.
- Before and/or after the surgery your doctor may prescribe eye drops to help prevent infection and reduce swelling.
- Most patients have improved vision soon after surgery, but your sight may continue to improve for several days or weeks.

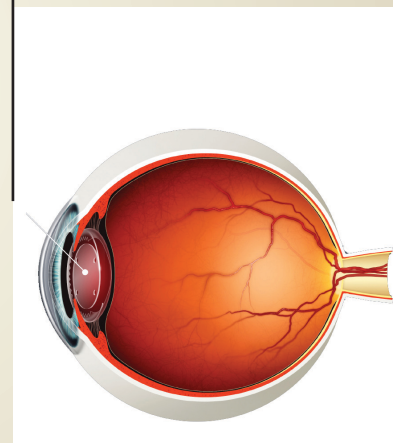
What Is an Intraocular Lens (IOL)?

An IOL is an artificial lens that is implanted in your eye during cataract surgery. The good news is that you have encountered cataracts at a time when intraocular lens technology has taken great leaps of progress.

Traditionally, monofocal IOLs were used for cataract surgery. This type of lens is very effective at restoring functional distance vision. However, people still need glasses to correct for near vision, and glasses or additional surgery to correct any existing astigmatism.

Recent advances have been so significant that new-generation lenses could allow you to see well at all distances without the help of glasses, bifocals, or reading glasses.

Intraocular Lens



Wellness

Following are three primary types of lenses currently available and a description of what each type of lens is designed to do for your vision:

- **Monofocal lenses** have one point of focus and can usually give you clear distance vision. While distance vision is improved, most patients still need to wear glasses for certain tasks, such as reading or working at a computer.
- **Multifocal lenses** are designed to replace cataracts and correct presbyopia at the same time. Their goal is to give you a full range of clear vision near to far and everywhere in between.
- **Astigmatism-correction lenses** are for patients with existing corneal astigmatism. Similar to monofocal lenses, these lenses usually give patients quality distance vision with less dependence on glasses. Most patients will still need to wear glasses for tasks such as reading or working at a computer.

The correct lens for you will depend on your eyes and your desire to be glasses-free. Your doctor will review your options and explain what you can expect from each one.

Cataracts can dramatically affect everything you see and do, but they don't have to. With a simple procedure, you can lift the fog and get back to seeing what you love. Colors can appear rich and vibrant, and everything you look at can be in clear focus.

More information about cataracts and cataract surgery is available at the following Web sites:

www.cataractsurgery.com
www.allaboutvision.com

Questions and Answers

Q: When is the best time to treat cataracts?

A: Many people believe cataracts have to be "ripe" before they can be removed. This is no longer true. Today, cataract surgery is a routine procedure that can be performed as soon as your vision interferes with the quality of your life.

Q: What happens if cataracts go untreated?

A: Over time, the clouded areas of your lens can become larger and more dense, causing your sight to become worse. This could take anywhere from a few months to many years. Eventually, your entire lens can cloud over and cause blindness.

Q: How do I know which lens implant is right for me?

A: No single lens works best for everyone, and only your ophthalmologist can determine the most appropriate option for you. Overall, patients who chose the multifocal over the monofocal intraocular lens have expressed greater satisfaction with the increased quality of living.

Q: Can cataracts come back?

A: Once a cataract has been removed it cannot return. However, over time, patients may complain that their vision has once again become cloudy. This condition is known as a secondary cataract, which can be easily and rapidly treated by a simple laser procedure performed in the office.

Q: Who performs cataract surgery?

A: Only ophthalmologists with special training in eye surgery can perform cataract surgery.

Wellness