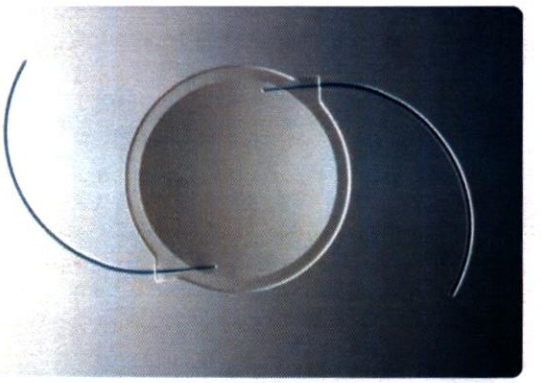
Intraocular Lenses (IOL) for Cataract Surgery

What are intraocular lenses?

An intraocular lens (or IOL) is a tiny, artificial lens for the eye. It replaces the eye's natural lens that is removed during cataract surgery.

The lens bends (refracts) light rays that enter the eye, helping you to see. Your lens should be clear. But if you have a cataract, your lens has become cloudy. Things look blurry, hazy or less colorful with a cataract. Cataract surgery removes this cloudy lens and replaces it with a clear IOL to improve your vision.



Intraocular lens

Eye Words to Know

Lens: Clear part of the eye behind the colored iris. It helps to focus light on the retina (back of the eye) so you can see.

Cornea: Clear, dome-shaped window of the front of your eye. It focuses light into your eye.

Types of IOLs

The most common type of lens used with cataract surgery is called a monofocal IOL. It has one focusing distance. It may be set to focus for up close, medium range or distance vision. Most people have them set for clear distance vision. Then they wear eyeglasses for reading or close work.

IOLs come in different focusing powers, just like prescription eyeglasses or contact lenses. Your ophthalmologist will measure the length of your eye and the curve of your cornea. These measurements are used to set your IOL's focusing power.

What are IOLs made of?

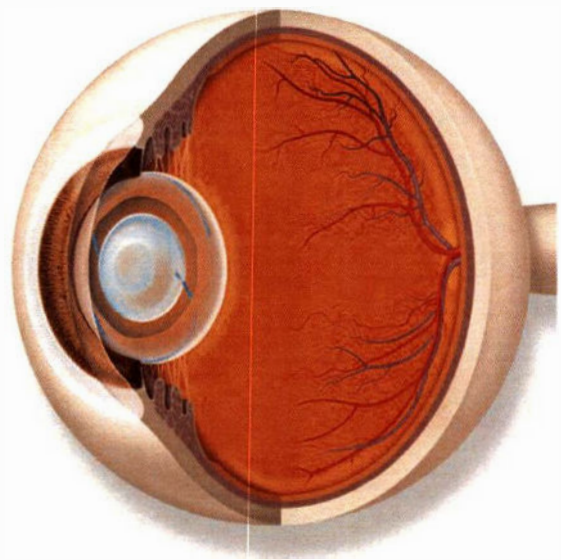
Most IOLs are made of silicone, acrylic, or other plastic material. They are also coated with a special substance to help protect your eyes from the sun's harmful ultraviolet (UV) rays.

Some IOLs have different focusing powers within the same lens. These are called **multifocal** and **accommodative** lenses. These IOLs reduce your dependence on glasses by giving you clear vision for more than one set distance.

- **Multifocal IOL:** Provides both distance and near focus at the same time. The lens has different zones set at different powers.
- **Extended depth-of-focus lenses:** Similar to multifocal lenses, **extended depth-of-focus (EDOF) lenses** sharpen near and far vision, but with only one corrective zone, which "extends" to cover both distances. This may mean less effort to re-focus between distances.
- **Accommodative IOL:** Lens moves or changes position inside your eye, allowing focusing at different distances.

For people with astigmatism, there is an IOL called a **toric** lens. Astigmatism is a refractive error caused by an uneven curve in your cornea or lens. The toric lens is designed to correct that refractive error.

As you plan for your cataract surgery, talk to your ophthalmologist about your vision needs and expectations. They will explain IOL options for you in more detail.



The IOL implant permanently replaces the natural lens.

Summary

An intraocular lens (IOL) is a clear, artificial lens for the eye. It replaces your eye's cloudy natural lens when you have cataract surgery. There are different kinds of IOLs. A monofocal IOL is usually set for clear distance vision, with eyeglasses needed for reading or close work. Multifocal and accommodative IOLs provide clear vision at more than one distance. Toric IOLs correct the refractive errors that come with astigmatism.

Your ophthalmologist will discuss IOLs with you.

Watch a cataract video from the American Academy of Ophthalmology's EyeSmart program at **aao.org/cataract-surgery-link**.