

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.

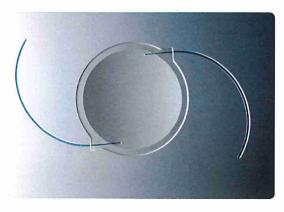
The lens bends (refracts) light rays that enter the eye, helping you to see. Your lens should be clear. But if you have a cataract, your lens has become cloudy. Things look blurry, hazy or less colorful with a cataract. Cataract surgery removes this cloudy lens and replaces it with a clear IOL to improve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



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.

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 IOLs focusing power.



Intraocular lens

Types of IOLs

The most common type of lens used with cataract surgery is called a monofocal IOL. It has one focusing distance. It is 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.

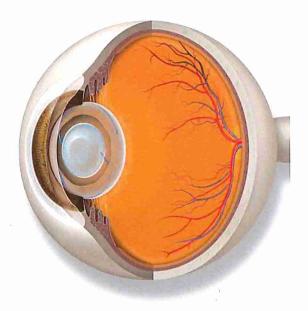
What are IOLs made of?

Most IOLs are made of silicone or acrylic. They are also coated with a special material 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. It is designed so that your brain learns to select the right focus automatically.
- Accommodative IOL: Lens moves or changes shape 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.



The IOL implant permanently replaces the natural lens.

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

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.

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