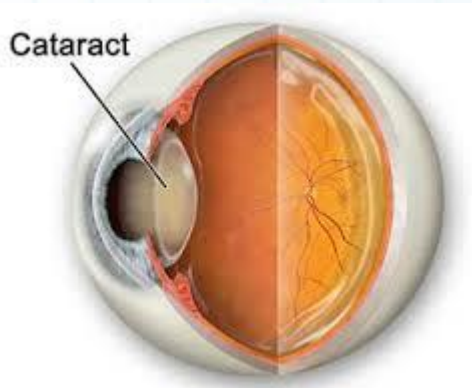


# Cataract



A cataract is a clouding of the lens in your eye. It affects your vision. Cataracts are very common in older people. By age 80, more than half of all Americans either have a cataract or have had cataract surgery.

A cataract can occur in either or both eyes. It cannot spread from one eye to the other. Common symptoms are

- Blurry vision
- Colors that seem faded
- Glare - headlights, lamps or sunlight may seem too bright. You may also see a halo around lights.
- Not being able to see well at night
- Double vision
- Frequent prescription changes in your eye wear

Cataracts usually develop slowly. New glasses, brighter lighting, anti-glare sunglasses or magnifying lenses can help at first. Surgery is also an option. It involves removing the cloudy lens and replacing it with an artificial lens. Wearing sunglasses and a hat with a brim to block ultraviolet sunlight may help to delay cataracts.

## Causes of Cataract

The lens, where cataracts form, is positioned behind the colored part of your eye (iris). The lens focuses light that passes into your eye, producing clear, sharp images on the retina — the light-sensitive membrane on the back inside wall of your eyeball that functions like the film of a camera.

A cataract scatters the light as it passes through the lens, preventing a sharply defined image from reaching your retina. As a result, your vision becomes blurred.

As you age, the lenses in your eyes become less flexible, less transparent and thicker. Age-related changes cause tissues within the lens to break down and clump together, clouding small areas within the lens. As the cataract continues to develop, the clouding becomes denser and involves a greater part of the lens.

Cataracts may develop in only one eye, but they usually develop in both of your eyes. However, the cataracts usually aren't totally symmetrical, and the cataract in one eye may be more advanced than the other.

## Types of cataracts

- Cataracts that affect the center of the lens (nuclear cataracts). A nuclear cataract may at first cause you to become more nearsighted or even experience a temporary

improvement in your reading vision. But with time, the lens gradually turns more densely yellow and further clouds your vision.

As the cataract slowly progresses, the lens may even turn brown. Advanced yellowing or browning of the lens can lead to difficulty distinguishing between shades of color.

- Cataracts that affect the edges of the lens (cortical cataracts). A cortical cataract begins as whitish, wedge-shaped opacities or streaks on the outer edge of the lens cortex.

As it slowly progresses, the streaks extend to the center and interfere with light passing through the center of the lens. People with cortical cataracts often experience problems with glare.

- Cataracts that affect the back of the lens (posterior subcapsular cataracts). A posterior subcapsular cataract starts as a small, opaque area that usually forms near the back of the lens, right in the path of light on its way to the retina.

A posterior subcapsular cataract often interferes with your reading vision, reduces your vision in bright light, and causes glare or halos around lights at night.

- Cataracts you're born with (congenital cataracts). Some people are born with cataracts or develop them during childhood. Such cataracts may be the result of the mother having contracted an infection during pregnancy.

These cataracts also may be due to certain conditions, such as myotonic dystrophy, galactosemia, Lowe's syndrome or rubella. Congenital cataracts don't always affect vision, but if they do they're usually removed soon after detection.

## Symptoms/Prevention of Cataract

Factors that increase your risk of cataracts include:

- Increasing age
- Diabetes
- Drinking excessive amounts of alcohol
- Excessive exposure to sunlight
- Exposure to ionizing radiation, such as that used in X-rays and cancer radiation therapy
- Family history of cataracts
- High blood pressure
- Obesity
- Previous eye injury or inflammation
- Previous eye surgery
- Prolonged use of corticosteroid medications
- Smoking

Make an appointment with your usual eye care provider if you notice changes in your vision. If your doctor determines that you have cataracts, then you may be referred to an eye specialist who can perform cataract surgery (ophthalmologist).

Because appointments can be brief, and because there's often a lot to talk about, it's a good idea to be well prepared for your appointment. Here's some information to help you get ready and know what to expect from your doctor.

## Diagnosis of Cataract

To protect your vision, it's important to make healthy lifestyle choices to prevent eye diseases, eye infections and eye injuries. But appropriate medical care also plays a role. From screenings to medicines and surgical treatments, care from an ophthalmologist—an eye physician and surgeon—can make the difference between healthy vision and losing your eyesight.

Sometimes, though, it is difficult to know how much eye care is enough, and which eye treatments are best for you. To help make sure you and your ophthalmologist are choosing wisely when you consider your treatment options, the American Academy of Ophthalmology has joined more than 30 other medical societies in the Choosing Wisely® campaign to encourage conversations between doctors and patients to discuss medical options.

Ophthalmologists are looking at five specific tests and treatments that could benefit from doctor-patient conversations. They include:

- Preoperative testing;
- Imaging tests;
- Antibiotics for pink eye;
- Antibiotics for eye injections; and
- Punctal plugs for dry eye.

This is the first in a series of articles that will discuss each item in detail over the next five weeks.

### Preoperative Testing

For many people, preoperative tests are not necessary. In general, patients scheduled for eye surgeries like cataract surgery do not need medical tests unless their medical history or physical examination indicates the need for a test. For example, your doctor should order an EKG before surgery only if you have heart disease, or a blood glucose test only if you have diabetes. Or, if you are on diuretics, they may need to run a potassium test. As in these examples, preoperative testing can be essential, but most patients probably do not need them, so they should not be a matter of routine. It depends on your specific medical history.

EyeSmart and the American Academy of Ophthalmology urge you to have a conversation with your ophthalmologist to discuss if preoperative tests are important for you based on your particular history and physical examination.

Ultimately, the best treatment for you will be up to you and your doctor. Choosing Wisely is all about making patient care even better and avoiding too much care that could possibly do harm. Having conversations that help avoid unnecessary tests, medicines, and procedures is one way to help keep you safe as a patient, and safeguard your pocketbook, too.

More information on the Choosing Wisely campaign is available at [Choosing Wisely](#).

Return next week to learn about the imaging tests that patients and their ophthalmologists should question and discuss together.



## Treatment of Cataract

### Pre-operative tests for cataract surgery

Before surgery, the length of your eye will be measured in what is called an A-scan, and the curve of your cornea will be measured in a technique called keratometry. These measurements help your Eye M.D. select the proper lens implant for your eye. You will also discuss the various lens options available to you.

If you have had previous LASIK or other laser vision correction, you can still have cataract surgery. In planning for cataract surgery, provide your Eye M.D. with the vision correction prescription you had before LASIK, if possible. This information will help your Eye M.D. calculate the correct IOL prescription for you. Previous refractive surgery can make determination of the correct IOL more difficult and your vision prescription prior to refractive surgery can help the surgeon calculate the correct IOL power.

### Medications and cataract surgery

If you are having cataract surgery, be sure to tell your ophthalmologist about all medications and nutritional supplements you are taking. If you currently use or have ever used alpha-blocker drugs for prostate problems, such as Flomax®, Hytrin®, Cadura® or Uroxatral® , tell your Eye M.D. These medications may prevent your pupil from dilating properly during surgery, leading to possible complications. If your surgeon is aware that you have had these drugs, he or she can adjust their surgical technique to adapt as needed, allowing for a successful cataract removal procedure. You should also tell your Eye M.D. about any other sedative medications you are taking.

To reduce the risk of infection from surgery, your ophthalmologist may prescribe antibiotic eyedrops for you to use one or two days before surgery.

### The cataract surgery procedure

The most common procedure used for removing cataracts is called phacoemulsification. A small incision is made in the side of the cornea (the front part of your eye), where your Eye M.D. inserts a tiny instrument that uses high-frequency ultrasound to break up the center of the cloudy lens and carefully suction it out.

After the cloudy lens has been removed, the surgeon will replace it with an intraocular lens (IOL) implant made of plastic, silicone or acrylic. This new, clear lens allows light to pass through and focus properly on the retina. The IOL becomes a permanent part of your eye. In most cases, the IOL is inserted behind the iris, the colored part of your eye, and is called a posterior chamber lens. Sometimes, the IOL must be placed in front of the iris. This is called an anterior chamber lens. When the IOL is in place, the surgeon closes the incision. Stitches may or may not be used. After the surgery, your Eye M.D. usually places a protective shield over your eye.

### Cataract surgery recovery

You will spend a short period of time resting in the outpatient recovery area before you are ready to go home. You will need to have someone drive you home.

Following your surgery, it is very important to put in the eye drops exactly as prescribed by your ophthalmologist to promote healing. You will also need to take care to protect your eye by wearing the eye shield whenever you sleep, and by wearing special wraparound sunglasses in bright light. Be sure not to rub your eye.

During the first week of your recovery, you must avoid strenuous activity such as exercise or bending and heavy lifting (including anything over 25 pounds). You will also need to avoid getting any water, dirt or dust in your eye, which can lead to infection.

You may have some blurry vision a few days to weeks after surgery procedure. If you experience any pain or loss of vision, be sure to call your ophthalmologist.

Cataract surgery risks and complications.

As with any surgical procedure, there are risks associated with cataract surgery. Risks and complications can include:

- Infection
- Bleeding inside the eye
- Increased pressure inside the eye (glaucoma)
- Swelling of the retina
- Swelling of the cornea
- Retinal detachment
- Loss of vision (partially or completely)

In some cases, the part of the lens covering that supports the IOL (called the capsule) can become cloudy several months or years after the first cataract was removed. This is called an "after cataract" or "secondary cataract." If this occurs and blurs your vision, your Eye M.D. will make an opening in the center of the cloudy capsule with a laser to allow light to pass through the lens properly again. This procedure, called a posterior capsulotomy, takes about five minutes in the doctor's office and requires no recovery period.

Most people who wear bifocals or reading glasses for near vision may still need to wear glasses after cataract surgery for reading, and, in some cases, even for distance. If you choose to have a multifocal or accommodative IOL, your dependence on glasses may be minimized or, in some cases, eliminated completely.

### **Cataract surgery costs**

Cataract surgery costs are generally covered by Medicare (if you are Medicare eligible) as well as by most private insurance plans.

Your cataract surgery costs will be covered by Medicare as long as your vision tests at a certain level of acuity or clarity. If you have a private insurance plan, they too may have similar vision requirements that you must meet in order to have your surgery covered. Even if Medicare or private insurance covers your cataract surgery, there may be some costs you would still be responsible for, such as having a special enhanced type of intraocular lens (IOL) implanted instead of a standard IOL, or choosing to have cataract surgery before your vision has deteriorated enough to be eligible for Medicare or insurance coverage.

In certain cases, it might be possible to get insurance or Medicare coverage for cataract removal before you meet the age or visual acuity eligibility requirements. Talk with your ophthalmologist if you are considering having early cataract surgery.

If you don't have Medicare or private insurance coverage, you may still be able to reduce and manage the cost of cataract surgery through other means, such as payment plans through your doctor's office or with a flexible spending account through your employer.

Your Eye M.D. can help you learn more about costs of cataract surgery and discuss your options for affording the procedure.

## References

1. Cataract Surgery - Eye M.D.-approved information from EyeSmart. 2015. *Cataract Surgery - Eye M.D.-approved information from EyeSmart*. [ONLINE] Available at: <http://www.geteyesmart.org/eyesmart/diseases/cataracts/cataract-surgery.cfm>. [Accessed 03 June 2015].
2. Cataracts - Mayo Clinic. 2015. *Cataracts - Mayo Clinic*. [ONLINE] Available at: <http://www.mayoclinic.org/diseases-conditions/cataracts/basics/definition/CON-20015113?p=1>. [Accessed 03 June 2015].
3. Cataract: MedlinePlus. 2015. *Cataract: MedlinePlus*. [ONLINE] Available at: <http://www.nlm.nih.gov/medlineplus/cataract.html#cat3>. [Accessed 03 June 2015].