CONDITION

Cataract - adult

Learn how adult cataracts affect vision, how they are diagnosed, when surgery may help, and which eye symptoms need urgent care.

WHAT IT IS
Cloudy area in the eye's natural lens

BODY SYSTEM
Eyes and vision

MAIN SYMPTOMS
Blurred vision, poor night vision, glare, faded colors

WHAT CAUSES IT
Age-related lens changes

HOW IT IS DIAGNOSED
Comprehensive eye examination with slit-lamp and dilation

MAIN TREATMENT
Cataract surgery

CAN IT BE CURED?
Yes - surgery removes the cloudy lens

IS IT AN EMERGENCY?
Sometimes - sudden major vision loss

LONG-TERM OUTLOOK
Usually treatable, but other eye disease may limit improvement

Overview

A cataract is a cloudy area in the eye's natural lens. The lens sits behind the colored part of the eye and helps focus light on the retina, the light-sensitive tissue at the back of the eye. A healthy lens is clear. When it becomes cloudy, light does not pass through or focus as well.

Most adult cataracts develop slowly as part of aging. They may affect one or both eyes, although each eye can change at a different rate. Cataracts do not spread from one eye to the other and are not contagious.

Small cataracts may have little effect at first. As clouding increases, vision can become blurred, dim, or sensitive to glare. This may make it harder to read, drive, recognize faces, or move safely in low light. Cataracts are important because they can interfere with independence and daily activities, but they are usually treatable.

A cataract does not always need to be removed as soon as it is found. Updated glasses, brighter lighting, and other adjustments may be enough for a time. Surgery is generally considered when the cataract affects activities that matter to the person or prevents an eye care professional from examining or treating another eye condition.

Symptoms

Cataract symptoms usually appear gradually. The changes may be subtle, and people sometimes adjust to them without realizing how much their vision has declined.

Possible symptoms include:

Different cataract patterns can affect vision in different ways. Clouding in the center of the lens may gradually reduce distance vision and change the glasses prescription. Clouding near the back of the lens may cause marked glare or reading difficulty even when the cataract appears relatively small.

Cataracts themselves usually do not cause sudden vision loss, severe eye pain, marked redness, or flashing lights. Those symptoms may have another cause.

Seek emergency eye care for sudden major vision loss, a dark curtain or shadow across the vision, severe eye pain, or an eye injury. Contact an eye surgeon promptly after cataract surgery if vision is worsening rather than improving, especially with increasing pain, redness, light sensitivity, discharge, new flashes, or many new floaters.

- Blurred, hazy, or cloudy vision
- Greater difficulty seeing at night or in dim light
- Glare from sunlight, headlights, or indoor lights
- Halos around lights
- Colors that look faded, dull, or yellowed
- A need for brighter light when reading
- Frequent changes in a glasses or contact lens prescription
- Double vision in one eye, which may remain when the other eye is covered
- Reduced contrast, making edges or objects harder to distinguish

Causes and risk factors

Age-related changes are the most common cause. Over time, proteins and fibers within the lens can change and clump together. The lens may also become less flexible and less transparent. These changes can scatter or block light.

Cataracts can occur earlier or progress faster in some people. Factors associated with a higher risk include:

Corticosteroids like prednisone or hydrocortisone include medicines such as prednisone and some steroid eye drops, injections, or inhaled treatments. They can be important for controlling serious illnesses. A person should not stop a prescribed steroid because of cataract concerns without speaking with the clinician who prescribed it.

An injury-related cataract may develop soon after the injury or years later. Cataracts may also occur with certain genetic or medical conditions, although these are less common causes in adults.

Sunglasses that block ultraviolet radiation and a hat with a brim can reduce ultraviolet exposure. Not smoking and managing diabetes support overall eye health. These steps may reduce risk, but they cannot guarantee that cataracts will not develop. No food, supplement, or eye drop has been shown to clear an established cataract.

- Increasing age
- Diabetes, especially when blood glucose is not well controlled
- Smoking
- Long-term exposure to ultraviolet light from the sun
- Previous eye injury or inflammation
- Previous eye surgery
- A family history of cataracts
- Radiation exposure
- Use of corticosteroid medicines, particularly over a long period

Diagnosis

An optometrist or ophthalmologist can diagnose a cataract during a comprehensive eye examination. An ophthalmologist is a medical doctor who specializes in eye disease and eye surgery. An optometrist provides eye examinations, vision correction, and diagnosis or management of many eye conditions.

The examination may include:

The clinician will consider whether the cataract explains the vision changes. Conditions such as age-related macular degeneration, glaucoma, diabetic eye disease, corneal disease, or problems with the optic nerve can also reduce vision. These conditions may affect how much improvement is possible after cataract surgery.

Before surgery, measurements are taken of the eye's length and corneal shape. These help calculate the power of the artificial lens that will replace the cloudy natural lens. The care team will also ask about daily visual needs, previous eye procedures, medicines, and other health conditions.

- Visual acuity testing: Reading letters or symbols at different distances to measure how clearly each eye sees.
- Refraction: Testing different lenses to determine whether updated glasses improve vision.
- Slit-lamp examination: Using a microscope and a narrow beam of light to examine the cornea, lens, and other structures at the front of the eye.
- Dilated eye examination: Using eye drops to widen the pupil so the lens, retina, and optic nerve can be examined.
- Eye pressure measurement: Checking pressure inside the eye, which helps assess for glaucoma and other problems.

Treatment and management

Early cataract symptoms may be managed without surgery. Helpful changes can include an updated glasses prescription, brighter task lighting, anti-glare measures, magnifying tools, and limiting night driving if glare makes it unsafe. Regular eye examinations can track changes in vision and check for other eye disease.

Cataract surgery is the only established treatment that removes the cloudy lens. The decision is based mainly on how vision affects daily life, safety, work, hobbies, or independence. A person does not usually need to wait until a cataract is "ripe." The presence of a cataract alone also does not mean that surgery must happen immediately.

During the most common operation, the surgeon makes a small opening in the eye, breaks the cloudy lens into small pieces using ultrasound, and removes them. This technique is called phacoemulsification. A clear artificial intraocular lens, or IOL, is then placed inside the eye. Surgery is commonly performed without an overnight hospital stay.

Several types of IOL are available. A standard monofocal lens usually provides its clearest

focus at one chosen distance, so glasses may still be needed for reading, distance, or both. Toric lenses can reduce certain types of astigmatism, which is blur caused by an unevenly curved cornea. Multifocal and extended-depth-of-focus lenses may reduce dependence on glasses but can produce glare, halos, or reduced contrast in some people. No IOL can guarantee freedom from glasses.

The best lens choice depends on eye health, visual priorities, previous surgery, cost, and tolerance for possible optical side effects. The surgeon should explain realistic benefits and tradeoffs rather than promise a particular result.

People should give the surgical team a complete list of medicines and supplements. Blood thinners and medicines used for prostate or urinary symptoms may affect planning. They should not be stopped unless the prescribing clinician and surgical team provide specific instructions.

After surgery, prescribed eye drops help control inflammation and reduce infection risk. Instructions vary, so patients should follow their own surgeon's plan rather than use someone else's drops. Rubbing the eye and activities that could expose it to injury, water contamination, or heavy strain may be restricted for a period determined by the surgeon.

If both eyes need surgery, they are often treated separately, although practices vary. Timing depends on visual needs, eye health, recovery, and local surgical procedures.

Complications

Without treatment, a cataract may continue to reduce vision. This can make driving, reading medication labels, navigating stairs, and recognizing hazards more difficult. Reduced vision can also contribute to falls or loss of independence. Progression is often slow, but the rate is not predictable for an individual.

Cataract surgery is widely performed and often improves vision, but every operation has risks. Possible complications include infection inside the eye, bleeding, inflammation, swelling of the cornea or retina, changes in eye pressure, movement of the artificial lens, retinal tear or detachment, and loss of vision. Some risks are more likely when another eye condition is present.

A common later problem is posterior capsule opacification. The thin tissue that supports the artificial lens becomes cloudy, causing vision to blur again. This is sometimes called a "secondary cataract," but the original cataract has not grown back. It can often be treated with a brief laser procedure that creates a clear opening in the cloudy tissue.

Some people still need glasses after surgery. Others have limited improvement because of

retinal, corneal, optic nerve, or other eye disease. Discussing these conditions before surgery helps set realistic expectations.

Follow up

A cataract that is not yet affecting daily life can usually be followed during routine eye appointments. The eye care professional will recommend the timing based on vision, cataract progression, diabetes, glaucoma risk, and other findings. Arrange an earlier assessment if gradual blur, glare, or night-driving difficulty begins to interfere with normal activities.

After surgery, attend all scheduled visits even if the eye feels comfortable. These checks allow the team to monitor healing, eye pressure, inflammation, and the position of the artificial lens. Vision may fluctuate during early healing, and a final glasses prescription is usually considered after the eye has stabilized.

Contact the surgical team promptly for increasing redness, pain, light sensitivity, discharge, or a clear decline in vision after surgery. New flashes, a sudden increase in floaters, or a curtain-like shadow need urgent assessment because they can be symptoms of a retinal tear or detachment.

Sudden severe eye pain or sudden major vision loss is not routine cataract progression. Seek emergency eye care rather than waiting for a standard appointment.

Sources

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