Cataracts

A cataract is a clouding of the normally clear lens of the eye. For people who have cataracts, seeing through cloudy lenses is a bit like looking through a frosty or fogged-up window. Clouded vision caused by cataracts can make it more difficult to read, drive a car (especially at night) or see the expression on a friend's face.

Most cataracts develop slowly and don't disturb your eyesight early on. But with time, cataracts will eventually interfere with your vision.

At first, stronger lighting and eyeglasses can help you deal with cataracts. But if impaired vision interferes with your usual activities, you might need cataract surgery. Fortunately, cataract surgery is generally a safe, effective procedure.

Symptoms

Signs and symptoms of cataracts include:

- Clouded, blurred or dim vision
- Increasing difficulty with vision at night
- Sensitivity to light and glare
- Need for brighter light for reading and other activities
- Seeing "halos" around lights
- Frequent changes in eyeglass or contact lens prescription
- Fading or yellowing of colors
- Double vision in a single eye

When to see a doctor

Make an appointment for an eye exam if you notice any changes in your vision. If you develop sudden vision changes, such as double vision or flashes of light, sudden eye pain, or sudden headache, see your doctor right away.

Causes

Most cataracts develop when aging or injury changes the tissue that makes up the eye's lens. Proteins and fibers in the lens begin to break down, causing vision to become hazy or cloudy.

Some inherited genetic disorders that cause other health problems can increase your risk of cataracts. Cataracts can also be caused by other eye conditions, past eye surgery or medical conditions such as diabetes. Long-term use of steroid medications, too, can cause cataracts to develop.

How a cataract forms

A cataract is a cloudy lens. The lens 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 in the eye that functions like the film in a camera.

As you age, the lenses in your eyes become less flexible, less transparent and thicker. Age-related and other medical conditions cause proteins and fibers within the lenses to break down and clump together, clouding the lenses.

As the cataract continues to develop, the clouding becomes denser. A cataract scatters and blocks the light as it passes through the lens, preventing a sharply defined image from reaching your retina. As a result, your vision becomes blurred.

Cataracts generally develop in both eyes, but not always at the same rate. The cataract in one eye may be more advanced than the other, causing a difference in vision between eyes.

Types of cataracts

Cataract types include:

- **Cataracts affecting the center of the lens (nuclear cataracts).** A nuclear cataract may at first cause more nearsightedness or even 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.

- **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. 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. These types of cataracts tend to progress faster than other types do.

- **Cataracts you're born with (congenital cataracts).** Some people are born with cataracts or develop them during childhood. These cataracts may be genetic, or associated with an intrauterine infection or trauma.

  These cataracts may also be due to certain conditions, such as myotonic dystrophy, galactosemia, neurofibromatosis type 2 or rubella. Congenital cataracts don't always affect vision, but if they do, they're usually removed soon after detection.

Risk factors

Factors that increase your risk of cataracts include:

- Increasing age
- Excessive exposure to sunlight
- Obesity
- Previous eye injury or inflammation
- Prolonged use of corticosteroid medications
- Diabetes
- Smoking
- High blood pressure
- Previous eye surgery
- Drinking excessive amounts of alcohol

Prevention

No studies have proved how to prevent cataracts or slow the progression of cataracts. But doctors think several strategies may be helpful, including:

- **Have regular eye examinations.** Eye examinations can help detect cataracts and other eye problems at their earliest stages. Ask your doctor how often you should have an eye examination.
- **Quit smoking.** Ask your doctor for suggestions about how to stop smoking. Medications, counseling and other strategies are available to help you.
- **Manage other health problems.** Follow your treatment plan if you have diabetes or other medical conditions that can increase your risk of cataracts.
- **Choose a healthy diet that includes plenty of fruits and vegetables.** Adding a variety of colorful fruits and vegetables to your diet ensures that you're getting many vitamins and nutrients. Fruits and vegetables have many antioxidants, which help maintain the health of your eyes.

Studies haven't proved that antioxidants in pill form can prevent cataracts. But a large population study recently showed that a healthy diet rich in vitamins and minerals was associated with a reduced risk of developing cataracts. Fruits and vegetables have many proven health benefits and are a safe way to increase the amount of minerals and vitamins in your diet.

- **Wear sunglasses.** Ultraviolet light from the sun may contribute to the development of cataracts. Wear sunglasses that block ultraviolet B (UVB) rays when you're outdoors.
- **Reduce alcohol use.** Excessive alcohol use can increase the risk of cataracts.

Diagnosis

To determine whether you have a cataract, your doctor will review your medical history and symptoms, and perform an eye examination. Your doctor may conduct several tests, including:

- **Visual acuity test.** A visual acuity test uses an eye chart to measure how well you can read a series of letters. Your eyes are tested one at a time, while the other eye is covered. Using a chart or a viewing device with progressively smaller letters, your eye doctor determines if you have 20/20 vision or if your vision shows signs of impairment.
- **Slit-lamp examination.** A slit lamp allows your eye doctor to see the structures at the front of your eye under magnification. The microscope is called a slit lamp because it uses an intense line of light, a slit, to illuminate your cornea, iris, lens, and the space between your iris and cornea. The slit allows your doctor to view these structures in small sections, which makes it easier to detect any tiny abnormalities.
- **Retinal exam.** To prepare for a retinal exam, your eye doctor puts drops in your eyes to open your pupils wide (dilate). This makes it easier to examine the back of your eyes (retina). Using a slit lamp or a special device called an ophthalmoscope, your eye doctor can examine your lens for signs of a cataract.
- **Applanation tonometry.** This test measures fluid pressure in your eye. There are multiple different devices available to do this.

Treatment

When your prescription glasses can't clear your vision, the only effective treatment for cataracts is surgery.

When to consider cataract surgery

Talk with your eye doctor about whether surgery is right for you. Most eye doctors suggest considering cataract surgery when your cataracts begin to affect your quality of life or interfere with your ability to perform normal daily activities, such as reading or driving at night.

It's up to you and your doctor to decide when cataract surgery is right for you. For most people, there is no rush to remove cataracts because they usually don't harm the eyes. But cataracts can worsen faster in people with certain conditions, including diabetes, high blood pressure or obesity.

Delaying the procedure generally won't affect how well your vision recovers if you later decide to have cataract surgery. Take time to consider the benefits and risks of cataract surgery with your doctor.

If you choose not to undergo cataract surgery now, your eye doctor may recommend periodic follow-up exams to see if your cataracts are progressing. How often you'll see your eye doctor depends on your situation.

What happens during cataract surgery

Cataract surgery involves removing the clouded lens and replacing it with a clear artificial lens. The artificial lens, called an intraocular lens, is positioned in the same place as your natural lens. It remains a permanent part of your eye.

For some people, other eye problems prohibit the use of an artificial lens. In these situations, once the cataract is removed, vision may be corrected with eyeglasses or contact lenses.

Cataract surgery is generally done on an outpatient basis, which means you won't need to stay in a hospital after the surgery. During cataract surgery, your eye doctor uses a local anesthetic to numb the area around your eye, but you usually stay awake during the procedure.

Cataract surgery is generally safe, but it carries a risk of infection and bleeding. Cataract surgery increases the risk of retinal detachment.

After the procedure, you'll have some discomfort for a few days. Healing generally occurs within a few weeks.

If you need cataract surgery in both eyes, your doctor will schedule surgery to remove the cataract in the second eye after you've healed from the first surgery.

Lifestyle and home remedies

To deal with symptoms of cataracts until you decide to have surgery, try to:

- Make sure your eyeglasses or contact lenses are the most accurate prescription possible
- Use a magnifying glass to read if you need additional help reading
- Improve the lighting in your home with more or brighter lamps
- When you go outside during the day, wear sunglasses or a broad-brimmed hat to reduce glare
- Limit your night driving

Self-care measures may help for a while, but as the cataract progresses, your vision may deteriorate further. When vision loss starts to interfere with your everyday activities, consider cataract surgery.