



Patient Information

Keeping an Eye on Cataracts

The way your eye works is very similar to the way a camera works. Light passes into the eye through a lens, which focuses the light on the back part of the eye, called the retina. The retina converts the light into visual signals that are carried to the brain by the optic nerve. The brain then translates the signals into images.

The eye's lens is made up mostly of water and protein. Often, as we age, the protein clumps together and clouds the lens. This cloudiness is called a cataract. If left untreated, the cataract may grow and keep more and more light from passing through the lens. When this happens, it's harder for the retina to form signals, and vision becomes blurred.

Cataracts are the leading cause of blindness in the world, especially among older people. More than 20 million Americans aged 40 years and older have cataracts, and more than half of all Americans either have a cataract or have had cataract surgery by age 80. A cataract can occur in 1 or both eyes, although it cannot spread from 1 eye to the other.

How do I know if I'm at risk?

You don't have to be older to get a cataract. Younger people can get them too. They even can be found in newborn babies. These cataracts tend to be small and usually don't affect vision, however; it isn't until after age 60 that most cataracts start to steal vision. Your chances for developing a cataract may be higher if you smoke, drink large amounts of alcohol, have diabetes,

take steroids, have been exposed to certain types of radiation, or get too much exposure to sunlight. Cataracts also can develop after a trauma to the eye, for instance after injury or surgery.

What are the warning signs?

If you have a cataract, your vision may become cloudy or blurry, you may see a halo around lights or a glare from lamps, your night vision may become poor, you may see double or multiple images (although this tends to go away as the cataract worsens), your eyeglass prescription may change often, and colors may look faded.

A small cataract may not cause any symptoms at all. Cataracts tend to grow slowly and impair vision gradually. Some people with cataracts actually have sudden but temporary improvements in their close-range vision.

What tests do I need?

If you have any of the symptoms listed above, you should visit an optometrist or an *ophthalmologist* (ahf-thal-mohl-uh-juhst) for an eye exam. It's possible that these symptoms may indicate other eye problems. During the exam, your eye doctor will test your ability to see distant objects and will dilate your pupils with eye drops, which widens your eye so that the doctor can use a magnifying lens to look at your retina and your optic nerve at the back of the eye. This test can make your vision blurry for several hours after the exam.

You'll also be given a *tonometry* (toe-nahm-uh-tree) test for *glaucoma* (glaw-



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ko-ma), an eye disease that can cause blindness. For this test, your doctor will place drops in your eye to numb it and use a special device to measure your eye pressure.

Some of these tests can affect your vision for several hours. Therefore, it is best to have someone who can drive you home accompany you to your eye exam.

How can I avoid the problem?

If you're older than age 60, it's important to have an eye exam that includes pupil dilation at least once every 2 years. Most eye doctors routinely check for cataracts in people aged 40 and older.

Although most people will develop a cataract if they live long enough, studies have shown that a diet that's high in vitamins A, C, and E (called antioxidants) can delay cataracts. Polyunsaturated fat, protein, and certain vitamins in the B family (such as thiamin, riboflavin, and niacin) also may protect against cataracts.

How is it treated?

If your cataract is small, then stronger lighting, glasses, or a magnifying lens may be all you need. It may be years before you require surgery to remove the cataract, or you may never need it. Usually, delaying surgery won't harm your eye. But if the cataract is interfering with such daily activities as driving and reading, or if it's preventing your doctor from easily examining or treating another eye problem, you and your doctor should discuss whether it's time for surgery.

Cataract surgery is one of the safest, most common, and most effective surgeries performed in the United States. There are 2 main ways to remove a cataract, and your doctor can help you decide which is best for you. In 1 procedure, called

phacoemulsification (fake-oh-ee-mull-sih-fih-**kay**-shun), your doctor makes a small cut in the cornea (the clear surface of the eye). Through this cut, your doctor inserts a tiny probe that emits ultrasound waves, which soften and break up the cataract. The cataract is then removed by suction.

The second type of surgery is called *extracapsular* (ex-tra-**kap**-syu-ler) surgery. In this, your doctor makes a slightly longer cut in the cornea, removes the hard center of the lens, and then removes the rest of the lens by suction.

In most surgeries, the damaged lens is replaced with a clear, artificial plastic one—called an *intraocular* (in-tra-**ahk**-you-lar) lens, or IOL. The IOL works just like your old lens, and you shouldn't be able to feel it. If, for some reason, you can't have an IOL implanted, your doctor may give you a soft contact lens to wear, or you may need to use more powerful glasses.

After surgery, your doctor may instruct you to use special eye drops to hasten the healing process and to not lift anything heavy. Your vision will be blurry as your eye heals and learns to focus with your other eye. Colors also may appear off for a while but, within 2 months, your eye should be completely healed.

For more information on cataracts, visit the National Eye Institute's Web site (<http://www.nei.nih.gov/health/ataract>). ●

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