



Deborah S. Bernay, O.D.
Meagan LeGrand, O.D.

Cataracts

A cataract is a clouding of the eye's natural lens, which lies behind the iris and the pupil.

Cataracts are the most common cause of vision loss in people over age 40 and is the principal cause of blindness in the world. In fact, there are more cases of cataracts worldwide than there are of glaucoma, macular degeneration and diabetic retinopathy combined, according to Prevent Blindness America (PBA).

Today, cataracts affect more than 22 million Americans age 40 and older. And as the U.S. population ages, more than 30 million Americans are expected to have cataracts by the year 2020, PBA says.

Types of cataracts include:

- A **subcapsular cataract** occurs at the back of the lens. People with diabetes or those taking high doses of steroid medications have a greater risk of developing a subcapsular cataract.
- A **nuclear cataract** forms deep in the central zone (nucleus) of the lens. Nuclear cataracts usually are associated with aging.
- A **cortical cataract** is characterized by white, wedge-like opacities that start in the periphery of the lens and work their way to the center in a spoke-like fashion. This type of cataract occurs in the lens cortex, which is the part of the lens that surrounds the central nucleus.

Cataract Symptoms and Signs

A cataract starts out small and at first has little effect on your vision. You may notice that your vision is blurred a little, like looking through a cloudy piece of glass or viewing an impressionist painting.

Hazy or blurred vision may mean you have a cataract.

A cataract may make light from the sun or a lamp seem too bright or glaring. Or you may notice when you drive at night that the oncoming headlights cause more glare than before. Colors may not appear as bright as they once did.

The type of cataract you have will determine which symptoms you experience and how soon they will occur. When a nuclear cataract first develops, it can bring about a temporary improvement in your near vision, called "second sight."

Unfortunately, the improved vision is short-lived and will disappear as the cataract worsens. On the other hand, a subcapsular cataract may not produce any symptoms until it's well-developed, so that it appears to have developed over a short period of time.

If you think you have a cataract, see an eye doctor for an exam to find out for sure.

What Causes Cataracts?

The lens inside the eye works much like a camera lens, focusing light onto the retina for clear vision. It also adjusts the eye's focus, letting us see things clearly both up close and far away.

The lens is mostly made of water and protein. The protein is arranged in a precise way that keeps the lens clear and lets light pass through it.

But as we age, some of the protein may clump together and start to cloud a small area of the lens. This is a cataract, and over time, it may grow larger and cloud more of the lens, making it harder to see.

No one knows for sure why the eye's lens changes as we age, forming cataracts. But researchers worldwide have identified factors that may cause cataracts or are associated with cataract development. Besides advancing age, cataract risk factors include:

- Ultraviolet radiation from sunlight and other sources
- Diabetes
- Hypertension
- Obesity
- Smoking
- Prolonged use of corticosteroid medications
- Statin medicines used to reduce cholesterol
- Previous eye injury or inflammation
- Previous eye surgery
- Hormone replacement therapy
- Significant alcohol consumption
- High myopia
- Family history

One theory of cataract formation that's gaining favor is that many cataracts are caused by oxidative changes in the human lens. This is supported by nutrition studies that show fruits and vegetables high in antioxidants may help prevent certain types of cataracts (see below).

Cataract Prevention

Though there is significant controversy about whether cataracts can be prevented, a number of studies suggest certain nutrients and nutritional supplements may reduce your risk of cataracts.

One large, 10-year study of female health professionals found that higher dietary intakes of vitamin E and the carotenoids lutein and zeaxanthin from food and supplements were associated with significantly decreased risks of cataract.

Good food sources of vitamin E include sunflower seeds, almonds and spinach. Good sources of lutein and zeaxanthin include spinach, kale and other green, leafy vegetables.

Other studies have shown antioxidant vitamins such as vitamin C and foods containing omega-3 fatty acids may reduce cataract risk.

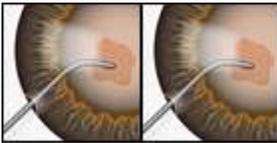
Another step you can take to reduce your risk of cataracts is to wear protective sunglasses that block 100 percent of the sun's UV rays when you are outdoors.

Cataract Treatment

When symptoms begin to appear, you may be able to improve your vision for a while using new glasses, strong bifocals, magnification, appropriate lighting or other visual aids.

Think about surgery when your cataracts have progressed enough to seriously impair your vision and affect your daily life. Many people consider poor vision an inevitable fact of aging, but cataract surgery is a simple, relatively painless procedure to regain vision.

How Cataract Surgery Works



Cataract surgery is very successful in restoring vision. In fact, it is the most frequently performed surgery in the United States, with more than 3 million Americans undergoing cataract surgery each year, according to PBA. Nine out of 10 people who have cataract surgery regain very good vision, somewhere between 20/20 and 20/40.

During surgery, the surgeon will remove your clouded lens and in most cases replace it with a clear, plastic intraocular lens (IOL).

Implant lenses are now available to correct astigmatism and in bifocal designs to allow for clear distance and near vision without the need for glasses.