Diagnosis of Cataracts

Cataracts can be diagnosed through a comprehensive eye examination. This examination may include:

- Patient history to determine vision difficulties experienced by the patient that may limit their daily activities and other general health concerns affecting vision.
- Visual acuity measurement to determine to what extent a cataract may be limiting clear vision at distance and near.
- Refraction to determine the need for changes in an eyeglass or contact lens prescription.
- Evaluation of the lens under high magnification and illumination to determine the extent and location of any cataracts.
- Evaluation of the retina of the eye through a dilated pupil.
- Measurement of pressure within the eye.
- Supplemental testing for color vision and glare sensitivity.

Additional testing may be needed to determine the extent of impairment to vision caused by a cataract and to evaluate whether other eye diseases may limit vision following cataract surgery.

Using the information obtained from these tests, your optometrist can determine if you have cataracts and advise you on options for treatment.

Information adapted from

AMERICAN OPTOMETRIC ASSOCIATION

Treatments for Cataracts

The treatment of cataracts is based on the level of visual impairment they cause. If a cataract affects vision only minimally, or not at all, no treatment may be needed. Patients may be advised to monitor for increased visual symptoms and follow a regular check-up schedule.

In some cases, a change in eyeglass prescription may provide temporary improvement in visual acuity. Increasing the amount of light used when reading may be beneficial. The use of anti-glare coatings on clear lenses can help reduce glare for night driving.

When a cataract progresses to the point that it affects a person's ability to do normal everyday tasks, surgery may be needed. Cataract surgery involves removing the lens of the eye and replacing it with an artificial lens. The artificial lens requires no care and can significantly improve vision. New artificial lens options include those that simulate the natural focusing ability of a young healthy lens.

Cataract surgery is one of the safest and most effective types of surgery performed in the United States today. Approximately 90% of cataract surgery patients report better vision following the surgery.

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6/15

CATARACTS

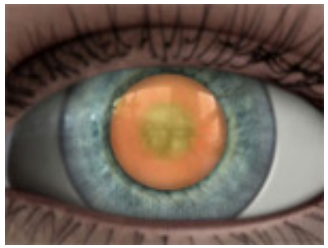
The Eye Center
AT SOUTHWEST HEALTH

WHAT IS A CATARACT

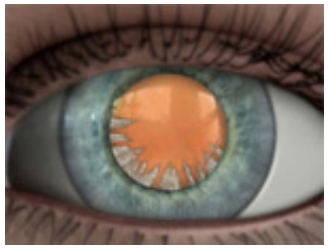
A cataract is a cloudy or opaque area in the normally clear lens of the eye. Depending upon its size and location, it can interfere with normal vision. Most cataracts develop in people over age 55, but they occasionally occur in infants and young children. Usually cataracts develop in both eyes, but one may be worse than the other.

Researchers have linked eye-friendly nutrients such as lutein/zeaxanthin, vitamin C, vitamin E, and zinc to reducing the risk of certain eye diseases, including cataracts.

Nuclear cataract



Cortical cataract



Posterior capsular cataract

Causes of Cataracts

Most cataracts are due to age-related changes in the lens. However, other factors can contribute to their development including:

- Diabetes mellitus—Persons with diabetes are at higher risk for cataracts.
- Drugs—Certain medications have been found to be associated with the development of a cataract. These include Corticosteroids and Chlorpromazine and other phenothiazine related medications.
- Ultraviolet radiation—Studies have shown that there is an increased chance of cataract formation with unprotected exposure to ultraviolet (UV) radiation.
- Smoking - An association between smoking and increased nuclear opacities has been reported.
- Alcohol - Several studies have shown increased cataract formation in patients with higher alcohol consumption compared with people who have lower or no alcohol consumption.
- Nutritional deficiency—Although the results are inconclusive, studies have suggested an association between cataract formation and low levels of antioxidants (e.g. vitamin C, vitamin E, carotenoids). Further studies may show that antioxidants have a significant effect on decreasing cataract development.

Rarely, cataracts can be present at birth or develop shortly after. They may be inherited or develop due to an infection, i.e. rubella, in the mother during pregnancy. A cataract may also develop following an injury to the eye or surgery for another eye problem, such as glaucoma.

Symptoms of Cataracts

Normally, the lens focuses light on the retina, which sends the image through the optic nerve to the brain. However, if the lens is clouded by a cataract, light is scattered so the lens can no longer focus it properly, causing vision problems.

Cataracts generally form very slowly. Signs and symptoms of a cataract may include:

- Blurred or hazy vision
- Reduced intensity of colors
- Increased sensitivity to glare from lights, particularly when driving at night
- Increased difficulty seeing at night
- Change in the eye's refractive error

Healthy Lens Cataracts

While the process of cataract formation is becoming more clearly understood, there is no clinically established treatment to prevent or slow their progression. In age-related cataracts, changes in vision can be very gradual. Some people may not initially recognize the visual changes. However, as cataracts worsen vision symptoms tend to increase in severity.

Preventive strategies may also include reducing exposure to sunlight through UV blocking lenses, decreasing or discontinuing smoking and increasing antioxidant vitamin intake through consumption of leafy green vegetables and nutritional supplements.

(continued on reverse...)