

Age related vision loss

There are many things that can cause vision loss as people age. The most common causes are:

- Cataracts
- Glaucoma
- Macular degeneration
- Diabetic retinopathy
- Presbyopia and refractive errors

Cataracts:

Cataracts are clouding of the lens in the eye. The lens is the part of the eye that can focus light; therefore cataracts can cause vision loss.

The word cataract comes from the Latin word “catarractes” which means waterfall. This is because the foamy white cloudiness of an advanced cataract resembles the turbulent water of a waterfall.

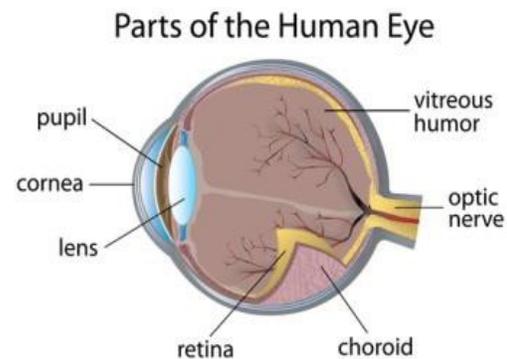
Cataracts make a person’s vision blurry or dull and can make everything look slightly brown in color. People often experience a glare from headlights and other lights.

Risks for developing cataracts include:

- Age
- Smoking
- Alcohol consumption
- Sunlight exposure
- Malnutrition and physical inactivity
- The use of steroids including prednisone

Cataracts can be detected by an optometrist or ophthalmologist just by looking at the eye. They will also test for other causes of vision loss.

Cataracts are treated by surgically removing the cloudy lens and replacing it with a new man-made one. It is a simple surgery but there is a small risk of infection or pain. It is generally done when the vision loss can no longer be corrected by eyeglasses or when it interferes with the ability to meet the needs of daily living.



Open-angle glaucoma:

Glaucoma is a disease that damages the optic nerve. It causes vision loss and may cause blindness. There are different types of glaucoma but the most common type is open-angle glaucoma which will be covered here.

Open-angle glaucoma generally causes no symptoms when it first appears. When the vision is affected; it causes what is referred to as “tunnel-vision” because the center of the visual field is clear but the edges are blurry. As the disease worsens, the entire visual field is affected.

Glaucoma can be detected by an optometrist or ophthalmologist by looking at the back of the eye for nerve damage, checking your vision in the center and to the sides, and checking the pressure in the eye. The pressure in the eye is increased with open-angle glaucoma.

If detected, open-angle glaucoma should be treated as soon as possible because treatment prevents or slows down vision loss but it does not restore the damage that has already occurred. Treatment is aimed at lowering the pressure in the eye. There are three ways to accomplish this:

- Eye drops
- Laser therapy to improve the way the fluid in the eye drains
- Surgery to make a tiny opening or place a small tube in the eye so that fluid can drain better.

Generally eye drops are tried first but if they do not lower the pressure in the eye adequately, laser therapy or surgery may be necessary.

Macular degeneration

Macular degeneration affects the vision in the central visual field so things in the center look blurry but are clearer at the edges. There are two types of macular degeneration:

- Dry macular degeneration: this is the most common type and causes gradual vision loss.
- Wet macular degeneration: this affects only 10 to 15 percent of people with macular degeneration. It causes severe vision loss rapidly and can cause blindness. Some people start with dry macular degeneration and then develop the wet type.

Risks for developing macular degeneration include:

- Age (increased incidence starting at age 50)
- Smoking
- Family history
- History of heart attack or stroke

Macular degeneration is treated with a special combination of vitamins and minerals that has been found to protect the eye. There are no other treatments for dry macular degeneration though smoking may increase the risk of developing advanced macular degeneration. Smokers should be counseled to stop smoking in order to prevent vision loss.

For wet macular degeneration, there are treatments that work by destroying abnormal blood vessels in the retina and preventing new blood vessels from forming there. These treatments involve injecting medication directly into the eye or using laser therapy.

Diabetic retinopathy

Diabetic retinopathy is an eye problem that occurs in diabetics, especially in those that do not control their blood sugars well. Most people who have diabetic retinopathy have no symptoms until the disorder is advanced. By that time it is usually too late to correct the vision loss.

Symptoms when they do occur include:

- Blurry vision
- Dark or floating spots
- Trouble seeing things in the center of the visual field
- Trouble telling colors apart

Diabetic retinopathy is detected by a dilated eye exam. The following schedule for regular eye exams should be used by all people with diabetes:

- For those with type 1 diabetes, yearly eye exams should start 3 to 5 years after diagnosis.
- For people with type 2 diabetes, yearly eye exams should start immediately after diagnosis.

Treatment includes keeping blood sugar and blood pressure levels as close to normal as possible. This can help keep the condition from getting worse. Other treatments include:

- Photocoagulation: this is laser surgery to seal or destroy leaking or growing blood vessels in the retina.
- Vitrectomy: this is surgery used to remove blood from the vitreous humor.
- Medications: some medications are injected into the vitreous humor and are used along with photocoagulation or vitrectomy.

Presbyopia and refractive errors

Presbyopia happens as a normal part of aging and changes the ability of the lens in the eye to focus up close.

Refractive errors are a group of disorders that impair vision because the cornea cannot focus light or images onto the back of the eye the right way. The most common refractive errors are:

- Myopia (near-sightedness) – images that are close are clear but things in the distance are blurry.
- Hyperopia (far-sightedness) – images in the distance are clear but things up close look blurry.
- Astigmatism – things are blurry at any distance.

Presbyopia and refractive errors can usually be corrected with eyeglasses or contact lenses. Some people with refractive errors can have a form of laser surgery called “LASIK” where a laser is used to reshape the cornea.

Prevention of age-related vision loss

Some types of age-related vision loss can be prevented. The following all help to reduce the chance of vision loss:

- Abstaining from smoking.
- Keeping blood sugar and blood pressure as close to normal as possible for people with diabetes.
- Wearing goggles or other types of eye protection when doing anything that could cause injury to the eyes.
- Eating a diet rich in fruits and vegetables and low in fat and cholesterol.