

# The Aging Eye

Eye diseases and disorders become more common as we age. Many eye problems can be prevented or corrected if detected in their early stages. Regular eye examinations by an ophthalmologist are the best way to detect eye conditions early, while they can be treated. The following are eye problems commonly experienced by older people.

## **Presbyopia**

When you are young, the lens in your eye is flexible and changes shape easily, allowing you to focus on objects both close and far away. As you grow older, your lens becomes less flexible. By about age 40, the lens cannot change shape as easily as it once did, and it becomes more difficult to read. This normal condition is called presbyopia. No exercise or medication can reverse presbyopia. You will need reading glasses or bifocals to help your eyes focus. The lens continues to harden, so you will need to change prescriptions as you grow older.

## **Floaters**

You may sometimes see small specks or clouds moving in your field of vision. These are called floaters. You can often see them when looking at a plain background, like a blank wall or blue sky. Floaters are actually tiny clumps of gel or cells inside the vitreous, the gel-like fluid that fills the inside of the eye. The specks that you see are the shadows they cast on the retina — the layer of light sensing cells lining the back of the eye. You should see your ophthalmologist if you suddenly develop new floaters. These symptoms may indicate a torn retina, which could lead to a retinal detachment.

## **Cataract**

A cataract is a clouding of the eye's naturally clear lens. When the lens becomes cloudy, light rays cannot pass through it easily, and vision becomes blurred. Protecting your eyes from sunlight may slow the progression of cataracts. There are no medications, eye drops, exercises, or eyeglasses that will cause cataracts to disappear once they have formed. Surgery is the only way to remove a cataract.

Common symptoms of cataracts include:

- a painless blurring of vision;
- glare, or light sensitivity;
- poor night vision;
- double vision in one eye;
- needing brighter light to read;
- fading or yellowing of colors.

It is up to you to decide when to have a cataract removed. When you are unable to see well enough to do the things you like or need to do, you should consider cataract surgery. In cataract surgery, the cloudy lens is removed through a small surgical incision. The focusing power of the natural lens is restored by replacing it with a permanent intraocular lens (IOL) implant. Cataract surgery improves vision in the vast majority of cases. Cataract surgery is done on an outpatient basis so you can return home very soon after the surgery.

## **Glaucoma**

Glaucoma is one of the leading causes of blindness in the United States. It develops when the pressure inside the eye, called the intraocular pressure (IOP), is elevated. Aqueous humor is a clear liquid that normally flows in and out of the eye. When this liquid cannot drain properly, pressure builds up in the eye. Over time the resulting increase in pressure damages the optic nerve. Blind spots in the vision eventually develop. The most important risk factors for glaucoma include:

- age;
- elevated eye pressure;
- family history of glaucoma;
- African ancestry;
- past eye injuries.

The only sure way to detect glaucoma is with a complete eye examination. Symptoms of glaucoma are not noticeable until damage has already occurred. Early diagnosis and treatment are the keys to preventing blindness. Glaucoma is usually controlled with eyedrops. Laser surgery and operative surgery are also used to treat the disease. Treating glaucoma only prevents further damage. Damage or loss of sight that has already occurred cannot be reversed.

## **Macular degeneration**

Macular degeneration causes damage or breakdown of the macula of the eye. The macula is the small, central area of the retina that allows us to see fine details clearly. Macular degeneration is caused by aging and thinning of the tissues of the macula. Vision loss is usually gradual. In some cases, abnormal blood vessels develop and leak fluid or blood under the macula. Vision loss in these cases may be rapid. When the macula doesn't function correctly, you experience blurriness or distortion in the center of your vision. Macular degeneration makes close-up work, like reading or threading a needle, difficult or impossible. Although macular degeneration reduces reading vision, it does not affect your peripheral vision. For example, you may see the outline of a clock but not be able to tell what time it is. Macular degeneration alone does not result in total blindness.

If you experience one or more of the following symptoms, have your eyes examined promptly:

- words on a page look blurred in the center;
- straight lines look distorted, especially toward the center of your vision;
- a dark or empty area appears in the center of vision;
- colors look dim.

There is no proven cure for macular degeneration. However, new medications can often maintain vision by stabilizing leaky retinal blood vessels. Various low-vision optical devices can help people continue with many of their normal activities. Because side vision is usually not affected, a person's remaining sight can be very useful. A wide range of support services, rehabilitation programs, and devices are available to help people with macular degeneration maintain a satisfying lifestyle.

## **Diabetic eye problems**

Many older adults have diabetes, a disease in which the body does not use or store sugar properly. Diabetes can damage the blood vessels in the retina, causing them to leak fluid or blood. This condition is called diabetic retinopathy. If untreated, it can lead to blindness. The progression of diabetic retinopathy can be slowed through good control of blood sugar and blood pressure. Laser surgery is the most effective treatment for diabetic retinopathy. It often does not return vision to normal, but it is very helpful in preventing continued loss of vision. Intraocular injections of medications and operative surgery may also be needed.

You can have serious, sight-threatening retinopathy without any symptoms. The best protection against loss of vision from diabetic retinopathy is to have regular eye examinations.