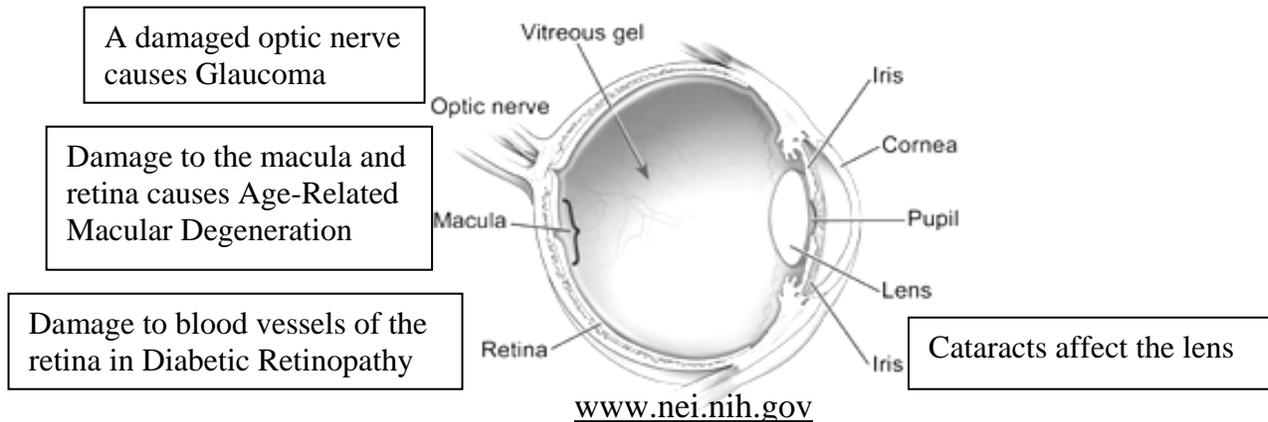


EYE HEALTH

Many of us take our good vision for granted when we're young. As we get older, we may notice that our vision isn't quite as good as it used to be. Poor vision can significantly diminish the quality of our life. Fortunately, many of the eye conditions that affect us can be treated effectively with proper care.

Our Eye and Possible Diseases



What are these diseases and are you at risk for them?

Cataracts

Cataracts is one of the most common and most treatable of eye conditions as we age. One in every six people over 40 will be affected by cataract. By the age of 80, more than half of all Americans have cataract. Cataract is a cloudy or opaque area in the normally clear lens of the eye when clumps of protein reduce the sharpness of the image reaching the retina and when the lens slowly changes to a yellowish/brownish color, adding a brownish tint to vision.

Risk Factors

- Certain diseases (for example, diabetes)
- Personal behavior (smoking, alcohol use)
- The environment (prolonged exposure to ultraviolet sunlight)

Symptoms

- Cloudy or blurry vision
- Colors seem faded
- Poor night vision
- Glare. Headlights, lamps, or sunlight may appear too bright. A halo may appear around lights



- Double vision or multiple images in one eye. (This symptom may clear as the cataract gets larger.)
- Frequent prescription changes in your eyeglasses or contact lenses



Treatment - The symptoms of early cataract may be improved with new eyeglasses, brighter lighting, anti-glare sunglasses, or magnifying lenses. Vision loss from advanced cataracts can usually be restored with eye surgery. Cataracts are hard to detect at early stages, so see an eye care doctor for a complete check up regularly.

Prevention – To prevent too much exposure to the sun, wear sunglasses or a hat. Many researchers believe antioxidants in foods and supplements might reduce risk of cataracts. They recommend eating green leafy vegetables, fruit, and other foods with antioxidants.

Glaucoma

A condition when the optic nerve, which carries the images we see to the brain, becomes damaged. In the early stages, it often has no symptoms, so regular eye exams are important to diagnose it early, when vision loss can usually be prevented.

Symptoms – A person with glaucoma may notice his or her vision gradually failing with loss of peripheral vision, have difficulty focusing on objects, and see a presence of halos around lights. Untreated glaucoma can lead to blindness.

Risk Factors

- over the age of 60 (40+ for African-Americans)
- elevated eye pressure
- family history of glaucoma
- African or Spanish-American ancestry
- farsightedness or nearsightedness
- past eye injuries
- thinner central corneal thickness
- systemic health problems, including diabetes, migraine headaches, and poor circulation
- smoking

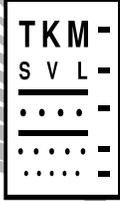


Treatment - Damage by glaucoma cannot be reversed, but prevention of further damage can be helped by eye drops, laser surgery and sometimes oral medication. Periodic exams are important to prevent vision loss.



Macular Degeneration

Age-Related Macular Degeneration (AMD) is the leading cause of vision loss of people over 65. There are different kinds of AMD and different levels of the disease.



- The dry form is most common when the part of the retina called the macula, which is responsible for central vision and allows us to do close work, becomes thin with age.
- Wet AMD is less common, but is more threatening to vision. This occurs when development of abnormal and fragile blood vessels under the retina leak fluid or bleed.

Symptoms – There is no pain and sharp vision loss occurs slowly. The first symptom is often dimming of vision while reading. Advanced forms of AMD can lead to blindness. It is recommended to have an exam by your eye doctor every year if you are over the age of 60 or have dry AMD.

Risk Factors

- gender - women are at greater risk than men
- race – Caucasians are more likely to have AMD than African Americans
- smoking may increase risk of AMD
- family history of AMD



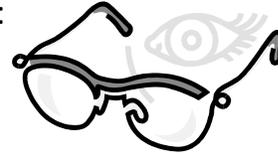
Treatment and Prevention - While there is no proven treatment for "dry" macular degeneration, some studies suggest antioxidants and zinc supplements may help. According to the Age-Related Eye Disease Study, taking high levels of vitamins C, E, and beta-carotene plus zinc and copper has shown to reduce the risk of advanced AMD by 25% in those who already had the disease. Consult your doctor if you could benefit from taking these supplements. Eye doctors can often help those with advancing macular degeneration cope with vision loss by recommending low-vision aids and rehabilitation therapy.

Wet AMD is treated by laser surgery and photodynamic therapy. These treatments are not a cure, but may slow vision loss or prevent further loss.

Diabetic Eye Disease (Diabetic Retinopathy)

Diabetic eye disease is a group of eye problems that people with diabetes may face as a complication of this disease. All can cause severe vision loss or even blindness. Diabetic eye disease could result from complications of diabetes and may include:

- cataracts
- glaucoma
- diabetic retinopathy



Diabetic Retinopathy is the most common complication of diabetes and is caused by damage to tiny blood vessels of the retina. These vessels can break down, leak, become blocked or abnormal new blood vessels may grow on the surface of the retina. Over time, this leads to vision loss or blindness.

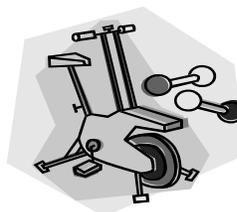
Risk Factors – Anyone who has diabetes (Type I and II) is at risk for these diseases. The longer one has diabetes, the more at risk he or she is for diabetic retinopathy or other eye diseases.

Symptoms – Often there are no symptoms at early stages of diabetic retinopathy. Vision may not change until the disease becomes severe. Also, there is no pain. Blurred vision may occur when the macula--the part of the retina that provides sharp, central vision--swells from the leaking fluid. If new vessels have grown on the surface of the retina they can bleed into the eye (causing spots), blocking vision.



Treatment - Laser surgery reduces the risk of severe vision loss from diabetic retinopathy by 60 percent. With macular edema, laser surgery may also be used. However, laser surgery does not reverse or restore vision loss. Since symptoms cannot be easily detected, it is recommended if you are a diabetic to have an eye exam every year to be able to detect diabetic retinopathy early and prevent blindness.

Prevention – Diabetic retinopathy cannot be prevented, but risk can be greatly reduced. The Diabetes Control and Complications Trial (DCCT) showed that better control of blood sugar level as close to normal slows the disease and lessens the need for laser surgery for severe retinopathy. This program may not be best for everyone, so ask your doctor if this program is right for you. In general, control your overall health through healthy eating and exercise.



General Eye Health

- Protect your eyes from accidents, the sun, flying objects, and chemicals that maybe harmful by wearing protective eye wear and/or a hat.
- Don't strain your eyes in front of the TV and in bad lighting
- Eat a healthy diet of dark colored (green-leafy, orange and yellow) vegetables and fruits rich in vitamin C and A (the carotenoids). Carotenoids have lutein and zeaxanthin which are pigments found in the retina to help protect eyes from harmful UV light and act as antioxidants. Good sources of vitamin C beside citrus include bell peppers, broccoli, mango, and strawberries. Carrots, apricots, cantaloupe, sweet potatoes, collard greens, spinach and romaine lettuce are excellent vitamin A sources.
- Eat nuts, seeds, wheat germ, and vegetable oils for good sources of vitamin E
- Get sufficient zinc from whole grains, beans, nut seeds, and meat to prevent some early forms of macular degeneration.
- Maintain a healthy weight
- Exercise
- Cigarettes harm your body, especially the eyes. Smoking is a leading risk factor in macular degeneration, glaucoma and cataracts.
- Have regular (every one to two years) eye examinations to detect potential diseases before they become serious. If you notice problems with your vision, see a doctor right away. See attached listing of "Signs of Possible Eye Trouble in Adults"



For more information on eye diseases contact:

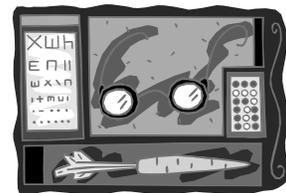
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*Information compiled from National Eye Institute and Prevent Blindness America

Lauri Woo, UC Davis Intern, February 2004