Age-related Macular Degeneration

AMD, a disease associated with aging, gradually destroys sharp, central vision by affecting the macula, the part of the eye that allows you to see fine detail. Your central vision is needed for seeing objects clearly and for common daily tasks such as reading and driving. AMD causes no pain and, in some cases, advances so slowly that people notice little change in their vision. In others, the disease progresses faster and may lead to a loss of vision in both eyes.

This disease can occur in two forms: wet and dry. **Wet AMD** occurs when abnormal blood vessels behind the retina start to grow under the macula. They often leak blood and fluid, causing damage to the macula. Loss of central vision can occur quickly with this form of AMD. **Dry AMD** occurs when the light-sensitive cells in the macula slowly break down, gradually blurring central vision. The most common symptom of dry AMD is slightly blurred vision. You may have difficulty recognizing faces and need more light for reading and other tasks. As this worsens, you may see a blurred spot in the center of your vision. Dry AMD generally affects both eyes, but vision can be lost in one eye while the other eye seems unaffected.

Those individuals at risk for AMD are:
- Age 50 and older
- Hypertensive
- Smokers
- People with a family history of AMD

If you have any of these risk factors, you should schedule a complete eye exam every one to two years. An eye exam will ensure AMD and other eye conditions that threaten vision are detected and treated early.

Your eye care providers at the Penn State Hershey Eye Center want everyone to be aware of the following facts:

- Age-related macular degeneration (AMD) is the leading cause of visual impairment for individuals age 50 and older.
- As the baby boomers age, the number of people with AMD and serious visual impairment will increase dramatically.
- Laser treatments can sometimes treat the “wet” form of macular degeneration (the rarer, but more severe form).
- Vitamin and mineral supplements such as zinc and antioxidants can slow the progression of the “dry” form (the most common form) of AMD in some people.
- Photodynamic therapy can reduce the risk of moderate to severe vision loss in patients with specific forms of “wet” macular degeneration.
- Other experimental treatments include intraocular injections of antineovascular drugs and the insertion of a “retinal chip” which may restore vision loss.
- People should investigate claims of “miracle treatments” carefully and talk to their Eye M.D.s before undergoing such treatments.

Source: EyeCare America, A Foundation of the American Academy of Ophthalmology
Low Vision

Early detection and treatment is the best defense against losing your vision. If your vision has been reduced by eye injuries or by diseases such as macular degeneration, glaucoma, diabetic retinopathy, or retinitis pigmentosa, low vision rehabilitation resources are available to help you preserve your quality of life and maintain maximum independence.

“Vision rehab can be a wonderful way to make the most of a person’s remaining vision. Those who are capable, motivated, and possess a positive attitude will be the most successful,” noted Dr. Marianne Boltz, Optometrist and Assistant Professor of Ophthalmology at the Penn State Hershey Eye Center. She specializes in low vision rehabilitation as well as Pediatric Optometry.

The amount of rehabilitation needed depends on your vision loss and what you want to be able to do. Many low-vision aids are available to assist with everyday tasks and your favorite leisurely activities. They include high-powered portable and stand magnifiers; magnifying spectacles; talking watches, clocks, phones, computers, and thermometers; video magnifiers; and closed circuit TVs (CCTVs) which enlarge print, making magazines and newspapers easier to read.

It is very important to talk with your eye care provider before purchasing these devices so that she/he can help you determine what will best meet your needs. Use of these devices requires training and practice. Your eye care provider may recommend involving a team of professionals to determine the amount and type of rehabilitation needed to help you adjust to your vision loss. These professionals may include a low-vision specialist, occupational therapist, rehabilitation teacher, orientation & mobility specialist, social worker, or counselor.

Source: American Academy of Ophthalmology

Interesting Facts

Did you know that . . .

- Eyes are composed of more than two million working parts.
- During World War II, Sir Harold Ridley, who was an ophthalmic surgeon in London, found that pilots came back from their missions with little pieces of their shattered airplane screens in their eyes but these objects were causing no inflammation of any significance. The material used to make their plane screens, Perspex, was modified and further developed into artificial lenses that are used in cataract operations.

What’s happening in Eye Care Research?

Clinical trials that are currently underway at the Penn State Hershey Eye Center are listed on the website of the Clinical Trials Office along with contact information for each study at: http://www.pennstatehershey.org/web/eyecenter/research/clinicaltrials

We are currently seeking healthy volunteers and those with AMD. Please contact Laura Walter at 717-531-4696 if you are interested in participating.

Penn State Hershey Eye Center
500 University Drive
Hershey, PA 17033
For an appointment, please call 717-531-5690