

## Keeping an eye on the future

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Our eyes start "aging" in our 40s when their lenses begin hardening and becoming less flexible and their pupils become smaller. Though getting older makes it progressively more difficult to focus, judge distances, distinguish colors, and adjust quickly to light changes, these are all normal vision losses that can be compensated for, until we are well into our 70s with stronger glasses and lighting and by making some personal changes, such as not driving at night.

Significant clouding of the eye's lens (cataracts), damage to the eye's optic nerve due to elevated fluid pressure inside the eye (glaucoma), damage to the area of the optic nerve responsible for central vision (macular degeneration), and damage to or destruction of the tiny blood vessels nourishing the eye (diabetic retinopathy) are not part of the eye's "normal" aging process, however. If left untreated these four increasingly more common eye disorders can cause significant vision loss (low vision) or blindness.

You can modify the severity of vision loss, delay onset of vision loss, and in some cases even prevent it, but only "if you are aware of your risk factors~so you know what to be on the look out for so you can get early diagnosis and treatment," said Dr. Richard Gans, Medical Director of University Ophthalmologists, Inc and Assistant Professor of Ophthalmology at Case Western Reserve Medical School.

### **Risk Factors**

Age is the only across-the-board risk factor for vision loss. "The longer we are lucky enough to live," explained Dr. Gans, "the more likely we are to develop serious eye disorders."

According to the National Eye Institute other risk factors include: For cataracts: excessive exposure to sunlight/ultraviolet rays, smoking, diabetes, and steroid use

For glaucoma: being African American and having a family history of glaucoma

For diabetic retinopathy: obesity, high blood pressure, having diabetes and/or a family history of diabetes

For macular degeneration: excessive exposure to sunlight/ultraviolet rays, smoking, being white, being female, and having a family history of macular degeneration

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It's very common, said Dr. Gans, for people to have risk factors for more than one eye disorder at the same time, "especially those that have a link with diabetes."

Since these four eye disorders usually aren't painful and don't cause sudden and noticeable changes in vision, most people don't even know they are being robbed of their sight by them. That's why, stressed Dr. Gans, a yearly eye exam-and maybe twice a year after 65-by an ophthalmologist is a must.

While early diagnosis and treatment (that may include diet and lifestyle changes, use of eye medications and/or dietary supplements, aggressive management of diabetes and/or other medical disorders, and/or minimally invasive surgery) can slow vision loss, they don't always work. Or they don't work forever.

### **Adapting to vision loss**

According to the Center for Disease Control, almost 1.8 million people over the age of 70 have significant vision loss that puts both their psychological health (due to feelings of isolation and frustration) and physical safety (due to the increased danger of falls and other accidents) at risk.

For these seniors, "treatment" means adapting to their visual impairment through home modifications, such as removing scattered rugs and applying contrasting tape to the edge of steps, and the use of assistive devices, such as closed circuit TV readers or replacing a standard telephone with one that has extra large numbers on the dial pad.

"These kinds of adaptations help people maintain both independence and quality of life," says Randy Knapp, the Senior Assistive Technology Specialist at the Cleveland Sight Center, where about 70% of those coming for services are seniors.

"Some of what we do is teaching people [with vision loss] about alternate ways to do things and some is showing them and letting them try out, in the "Eye"dea Shop, the different devices and appliances and tools that are available," explained Mr. Knapp, who has been blind from birth.

"But the most important thing we do," he said, "is help people come to terms with where they are. That's the reason we have counseling with social workers, the Personal Adjustment Training Program and the Share the Vision support groups."

**For more information on prevention, diagnosis, and treatment of vision problems, contact:**

Bureau of Services for the Visually Impaired  
216-0787-3375

Cleveland Eye Clinic  
216-621-6132

Cleveland Sight Center/Society for the Blind  
216-791-8118

Diabetes Association of Greater Cleveland  
216-591-0800

Lighthouse International  
800-829-0500

Prevent Blindness Ohio  
800-301-2020

**Websites of interest include:**

Age-Related Eye Disease Study (AREDS) [www.nei.nih.gov/amd](http://www.nei.nih.gov/amd)

Cleveland Clinic Cole Eye Institute [www.clevelandclinic.org/eye](http://www.clevelandclinic.org/eye)

Cleveland Sight Center [www.clevelandsightcenter.org](http://www.clevelandsightcenter.org)

CWRU Ophthalmology/University Hospitals [www.cwrueyes.com](http://www.cwrueyes.com)

Disability Resources Guide [www.disabilityresources.org](http://www.disabilityresources.org)

Low Vision Resource List [www.nei.nih.gov/health/lowvision/resources.htm](http://www.nei.nih.gov/health/lowvision/resources.htm)

National Eye Institute [www.nei.nih.gov](http://www.nei.nih.gov)