

Detecting Glaucoma

Assessing Your Eye Health with a Comprehensive Exam

Glaucoma is one of the leading causes of blindness in the world; however, glaucoma continues to be under-diagnosed, even in developed countries. The best way to assess your eye health at any age is to visit your eye care professional (ECP) for a regular, comprehensive eye exam. These visits can help your ECP detect problems such as glaucoma. If glaucoma is not caught early and properly managed, it may lead to serious potential outcomes. By examining your eyes, your ECP may also see signs of systemic diseases—diseases that affect many body systems—including diabetes, hypertension, thyroid disorder, and rheumatoid arthritis.

The American Academy of Ophthalmology recommends that all adults get a comprehensive eye exam at age 40, even if you don't have symptoms or risk factors for eye disease. Then, your ECP will tell you how often you need to come back for check-ups.

Here's what you can expect when your eye doctor checks for glaucoma during your comprehensive eye exam:

Dilation

During a dilated eye exam, your ECP will give you eye drops that dilate (widen) the pupil to show a greater portion of your **retina**—a layer of light-sensitive tissue that lines the back of the eye. Then, your ECP will use a special lens to look into your eye and check the health of your **optic nerve**—a bundle of nerve fibers that send signals from your retina to your brain. You will experience blurry vision and sensitivity to sunlight for several hours after dilation, so arrange to have a friend or family member help you get home.

The purpose of dilation is to check your optic nerve for signs of glaucoma, and to examine your retina for damage and signs of other eye problems, such as diabetic retinopathy and age-related macular degeneration.

Puff Test

The "puff test," also called noncontact tonometry, is a quick, easy, painless test to measure the pressure in your eye (**intraocular pressure**, or **IOP**). High eye pressure is the most important risk factor for glaucoma. Eye pressure can also be measured by a test called

applanation tonometry, which gently applies a pressure sensitive tip near or against the eye, to get a more accurate reading. Numbing drops may be applied to your eye for this test.

It is important to understand not all patients who have glaucoma have high eye pressure. That's why, in addition to an eye pressure reading, you need to have a dilated exam that checks for damage to your optic nerve.

Visual Field Test

The visual field test, or perimetry test, measures your peripheral (side) vision. This test is important because changes to your side vision may be a sign of glaucoma. During the test, you look at a screen on which small flashes of light blink on and off at different locations; your ECP will direct you to press a button each time you see a flash. The test maps your responses, and identifies gaps in your peripheral vision.

Other Tests in a Comprehensive Eye Exam

Depending on your individual test results and risk factors, your ECP may recommend additional tests to evaluate your eye health and detect certain eye conditions, including a visual acuity test. It measures how well you see at different distances. You're probably familiar with this test, in which your ECP will ask you to read letters from an eye chart.

Looking Ahead

Your vision is priceless. Make an appointment for a comprehensive, dilated eye exam today and encourage your loved ones to do the same.

TAKE on Glaucoma is an educational program developed, in partnership, by The Glaucoma Foundation, the Alliance for Aging Research, and Merck, and is funded by Merck. The campaign aims to educate Americans about eye health, particularly glaucoma, so that the disease is detected early and managed properly for each patient.

Making the Most of Your ECP Visit

In the short amount of time you have together, asking the right questions of your ECP can help protect your eye health:

- Q:** Can we take a moment to discuss my risk for glaucoma?
- Q:** How does my optic nerve look? Has it changed since my last visit?
- Q:** How is my eye pressure? Has it changed since my last visit?

When in doubt, speak up: Let your ECP know if you have concerns about your eye health.