

Open-Angle Glaucoma

A plain-English guide for you and your family

WHAT IS HAPPENING

Open-angle glaucoma happens when the tiny drain inside your eye (called the trabecular meshwork) slowly gets clogged, even though the opening to the drain still looks normal. Fluid that is made fresh every day inside your eye cannot leave fast enough, so pressure builds up. That rising pressure squeezes the optic nerve (the cable that carries images from your eye to your brain), and the nerve fibers slowly die. Because the damage starts at the edges of your vision and creeps inward very slowly—and because there is no pain—most people do not notice anything wrong until a lot of vision is already gone. Regular eye exams with pressure checks and a look at the optic nerve can catch the problem early, and daily eye drops or laser treatment can lower the pressure and save the sight you still have.

What you might feel

- Gradual loss of side vision (peripheral vision)
- Tunnel vision in late stages
- No pain
- Difficulty seeing in dim light or at night
- Trouble adjusting when moving from bright to dark spaces
- Increased cup-to-disc ratio on eye exam
- Elevated intraocular pressure (often 21 mmHg or higher)
- Normal central vision until very late in the disease

Call the doctor right away if...

- Sudden, severe eye pain (suggests acute angle-closure glaucoma instead, which is an emergency)
- Rapid vision loss over days or weeks (open-angle glaucoma is slow; fast loss means something else urgent is happening)
- Severe headache with nausea and vomiting along with blurry vision (points to sudden high pressure or another brain/eye emergency)

- Only one eye affected and vision dropping quickly (open-angle is usually both eyes; one-sided fast loss suggests stroke, detachment, or infection)

What the care team will do

- Teach the patient how to put in eye drops correctly and build a daily routine so no doses are missed.
- Check if the patient can afford their medications and help connect them to assistance programs if cost is a barrier.
- Assess the patient's current vision and daily safety, especially fall risk and ability to drive or move around safely.
- Reinforce the need for regular eye exams every 3 to 6 months or as prescribed by the eye doctor, even if vision feels fine.
- Teach warning signs of angle-closure glaucoma and instruct the patient to go to the emergency room immediately if they happen.

Medicines you may be given — and why

Latanoprost (Xalatan)

Opens extra drainage pipes in the eye so the fluid inside can flow out faster, lowering the pressure.

Timolol (Timoptic)

Slows down the pump that makes fluid inside the eye, so less fluid is produced and pressure stays lower.

Brimonidine (Alphagan P)

Does two things: turns down the pump that makes fluid in the eye and opens an alternate drain so fluid flows out faster.

Dorzolamide (Trusopt) or Brinzolamide (Azopt)

Blocks an enzyme in the eye that helps make fluid, so the pump that produces aqueous humor runs slower and makes less fluid.

Pilocarpine

Makes the pupil smaller and pulls on the drainage mesh in the eye, opening it wider so fluid drains out faster.

Netarsudil (Rhopressa)

Relaxes the cells in the main drain of the eye so fluid flows through more easily, and also lowers the pressure in the veins that carry fluid away from the eye.

Acetazolamide (Diamox)

Blocks the same enzyme as the eye drops (carbonic anhydrase) but works throughout the whole body, slowing down fluid production in the eye.

Where this information comes from

- American Academy of Ophthalmology Preferred Practice Pattern
- American Glaucoma Society
- National Eye Institute (NEI)
- Cochrane Eyes and Vision

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