

Normal Tension (Normal Pressure) Glaucoma

How does normal tension glaucoma differ from "regular" glaucoma?

Glaucoma is a group of eye diseases in which elevated pressure inside the eye leads to permanent damage to the optic nerve at the back of the eye. The optic nerve is an important structure because it is the pathway by which signals from the retina travel to the brain and allow for sight. While most kinds of glaucoma involve elevated eye pressure, Normal Tension (or Normal Pressure) Glaucoma – NTG - is a form of glaucoma in which damage occurs to the optic nerve without eye pressure exceeding the normal range. In general, a "normal" pressure range is between 10-21 mm Hg. For a long time, NTG was thought to be a rare disease. It is increasingly realised that the number of persons with NTG has been vastly underestimated.

What causes normal tension glaucoma?

The causes of NTG are still unknown. For some reason, the optic nerve is susceptible to damage at a lower pressure. Some theories suggest it is related to the blood flow in the eye.

What are the risk factors for NTG?

- Family history of any kind of glaucoma - it doesn't have to be normal tension glaucoma
- Cardiovascular disease
- Migraines
- Poor circulation
- It is more common for women to develop NTG than men
- Japanese ancestry

How is NTG treated?

The treatment of NTG involves reducing the pressure in the eye further to remove stress on the optic nerve. This is essentially like treating other forms of glaucoma. Research has clearly shown that lowering eye pressure slows progression of normal tension glaucoma. In addition, patients with glaucoma are increasingly advised to reduce their risk for cardiovascular disease by not smoking, controlling high blood-pressure and high cholesterol (when present), exercising, and adhering to a heart-healthy diet. This treatment aims at trying to address factors that lead to glaucoma that are not related to eye pressure.