

Ocular Hypertension

- A statistical elevation of the intraocular pressure (IOP)
- Not related to blood pressure
- There is no normal pressure (the concept of 10-21 mm Hg being “normal” eye pressure is out-of-date), but the higher the pressure, the greater the risk of converting to glaucoma (damage from the pressure)
- There are patients with IOPs of 12 and severe glaucoma damage, and patients with IOPs of 30 and no damage; the term “ocular hypertension” applies to patients with no damage and an IOP of 22 mm Hg or higher
- Depending on your individual risk factors, you may or may not be treated to lower the IOP
- You will be monitored with visual field tests and optic nerve imaging whether or not you are treated (50% of patients who convert will show up first on the visual field test, the other 50% will show up first on the imaging)

The Ocular Hypertension Treatment Study (OHTS)

- 5 year multi-center national clinical trial evaluating benefit of treatment in preventing conversion to glaucoma
- At the end of 5 years, the treated group had a 4.4% rate of converting to glaucoma and the untreated group had a 9.5% chance of converting to glaucoma
- Risk evaluation consists of a composite of age, central corneal thickness, visual field statistic, optic nerve appearance, IOP, and presence or absence of diabetes
- Central corneal thickness is measured – average is 545 microns. The IOP is measured by the force needed to indent the cornea. A thick cornea will take more force to indent, and the IOP may read higher than it truly is, and a thin cornea takes less force to indent, and the true IOP is higher than measured. The one important caution is that patients with thick corneas can still get glaucoma, so a high IOP reading in a patient with a thick cornea does not mean they are not at risk