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#### Ocular Hypertension (OHT) Definition

OHT is defined as an intraocular pressure(IOP) which is greater than 21(normal 10-21) **and** who have no signs of glaucoma. The eye is a hollow sphere and a certain level of IOP is necessary for the eye to keep its shape stable. Inside the front part of the eye called the anterior chamber clear fluid called aqueous is produced to nourish the cells and then drains out through a filtering channel. OHT results when the drainage of aqueous is decreased causing the fluid to back up and raise the IOP. Most patients with OHT or glaucoma do not have pain or any other symptoms.

OHT Diagnosis. The cornea is anesthetized with an eye drop which contains a fluorescent yellow dye. A tonometer which is a small cylindrical prism attached to a calibrated gauge presses against the cornea for a few seconds to obtain the IOP. Another method is with an air puff tonometer which produces a calibrated puff of air to measure the IOP. The IOP can vary from time of day(usually higher in the morning) and with position of the head relative to the body(IOP is higher in supine position compared to sitting up).

#### OHT, Glaucoma, Optic Nerve, Visual field.

OHT is a risk factor for glaucoma which is a disease of the optic nerve which causes damage to your vision. One of the earliest indications of glaucoma is a change in the optic nerve. A three dimensional view of the optic nerve looks like a coffee cup which has a rim and a empty space inside the rim. This empty space of the nerve is called the cup and damage from glaucoma causes an increased cup of the nerve(cupping). Another indication of glaucoma damage is loss of your side vision(peripheral vision) and this damage is detected with a visual field test.

#### OHT treatment

Not all patients with OHT need treatment because many, if not most, will never develop glaucoma. Some OHT patient's with additional risk facts such as thinner cornea or markedly higher IOP may be treated to reduce the chance of developing glaucoma. This was demonstrated in a five year study called the Ocular Hypertension Study(OHTS). Eyedrops are the first line of treatment and if they do not lower the pressure to a safe level laser or surgery an be used.