Laser Peripheral Iridotomy (PI)

Why is PI necessary?

Laser peripheral iridotomy (PI) is performed usually for patients with narrow angles or angle closure glaucoma (ACG).

Fluid in the eye is made in the ciliary body, which lies behind the iris. The fluid primarily escapes the eye by flowing between the lens and iris of the eye, draining into a meshwork, which is located in a space known as ‘the angle’ of the eye in the anterior chamber.

Glaucoma Closed Angle  Glaucoma PI

If a forwardly bowed iris obstructs the flow of fluid to the drainage angle, the patient is said to have narrow angles. This condition may predispose one to an episode of ACG.

How does laser peripheral iridotomy work?

Laser peripheral iridotomy uses a laser beam to make a small hole in the iris, the coloured part of the eye. The hole allows the fluid that is trapped behind the iris to drain more freely into the trabecular meshwork (the drainage pathway) of the eye. This typically results in resolution of the forwardly bowed iris and thereby an opening up of the angle of the eye.

What is involved in performing a PI?

The PI is completed in the office. Prior to the procedure, the pupil is often constricted with an eye drop medication known as pilocarpine. The procedure itself is completed with the patient seated at the laser, and requires no sedation. Usually, a special contact lens is placed on the eye after topical anesthetic drops are applied. The laser procedure takes a few minutes. In general, only a few very brief episodes of slight discomfort are associated with this procedure. After the procedure, your eye surgeon may recommend anti-inflammatory eye drop medications for the next few days. A follow-up visit will be scheduled.

What are the potential complications?

PI is an extraordinarily safe procedure. Complications, fortunately, are very rare. These potential complications include bleeding in the eye, inflammation in the eye, and transient pressure elevations. These complications are usually self-limiting and mild and do not result in permanent damage. Very rarely, bothersome double vision may result.