LASER PERIPHERAL IRIDOTOMY

A laser peripheral iridotomy (PI) is performed almost exclusively for patients with narrow angles, narrow angle glaucoma, or acute angle closure glaucoma. Aqueous fluid is made in the ciliary body of the eye, which is anatomically situated behind the iris. The aqueous fluid primarily escapes the eye by flowing between the lens and the iris of the eye, and then drains via the trabecular meshwork, which is located in the angle of the eye (where the front clear cornea meets the iris).

If the flow of the aqueous fluid to the drainage angle (trabecular meshwork) is obstructed by a forwardly bowed iris, the patient is said to have narrow anterior chamber angles. This condition may predispose one to an acute episode of angle closure glaucoma. If the angles are never acutely closed, but glaucoma is still present, the patient is diagnosed with narrow angle glaucoma (see Figure 1).

Laser peripheral iridotomy involves creating a tiny opening in the peripheral iris, allowing aqueous fluid to flow from behind the iris directly to the anterior chamber of the eye (see Figure 2). This typically results in resolution of the forwardly bowed iris and, thereby, an opening up of the angle of the eye (see Figure 3). The narrow or closed angle thus becomes an open angle!

The laser peripheral iridotomy procedure is completed in the office. Prior to the procedure, the pupil is often constricted with an eye drop medication known as Pilocarpine. Usually, a lens is placed on the eye (after topical anesthetic drops are applied) in order to better control the laser beam. The entire procedure takes only a few minutes. The lens is then removed from the eye, and vision will quickly return to normal. After the procedure, we may recommend anti-inflammatory eye drops for the next few days and a post-operative visit will be scheduled.

Does laser peripheral iridotomy reverse glaucoma?

Often, patients having a laser PI do not have glaucoma; this procedure is being done prophylactically to prevent the development of angle closure glaucoma. In the cases where there is pre-existing chronic open angle glaucoma, or attacks of acute angle closure glaucoma, the treatment should prevent further damage to the nerve.

Is the procedure painful?

The surface of the eye is numbed by topical anesthetics for this procedure, but the iris is not; therefore, when the laser beam hits the iris to create the peripheral iridotomy, mild discomfort may occur. In general, only a few brief episodes of slight discomfort are associated with this procedure. Also, there is absolutely no discomfort postoperatively in the great majority of cases.

What are the potential complications?

A laser peripheral iridotomy is an extraordinarily safe procedure. Complications, fortunately, are very rare. Potential complications include bleeding in the eye, inflammation in the eye, and transient pressure elevations. Therefore, we recommend treatment with an anti-inflammatory drop following the procedure.

Appointment date: ________________________ Time: ________________________

All of Dr. Anderson's Care Instructions may also be viewed online at:
www.andersoneyesurgery.com

Figure 1
An eye affected with narrow angle glaucoma.

Figure 2
A small opening is created in the peripheral iris using a laser.

Figure 3
The forwardly-bowed iris is corrected, and the angle of the eye is opened.