



PATIENT INFORMATION  
SERVICES

# SIMPLY speaking

## Common Eye Diseases

# Angle Closure Glaucoma

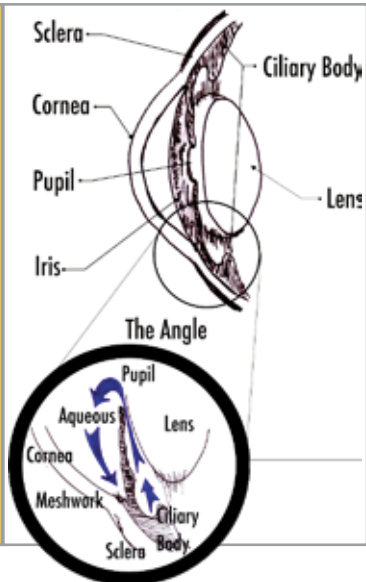
### Glaucoma

Glaucoma is characterized by progressive loss of optic nerve fibers leading to gradual constriction of the field of vision until total blindness. It is associated with increased eye pressure.

#### The Angle

Internally, the iris and the cornea meet at the periphery forming a triangular space with a gutter at the apex covered by a sieve-like tissue called the Trabecular Meshwork. The gutter forms a 360 degree ring around the iris and is known as Schlem's canal. The outer portion of the canal has channels that lead to the veins that drain the eye.

Aqueous, the nourishing fluid that is produced constantly by the ciliary body behind the iris, flows over the lens, across the pupil, into the Schlem's canal, and out the venous system. The balance between aqueous production and outflow maintains the eye pressure somewhere between 10 to 20 mm Hg, which can be measured clinically by several methods. Elevation of eye pressure is associated with progressive damage of the optic nerve and eventual loss of vision (see *Glaucoma is a Blinding Disease*).



### Acute Angle Closure Glaucoma

In some eyes, the peripheral iris can be very close to the peripheral cornea and meshwork and the angle is said to be narrow. Should the iris be pushed forward, nearer the meshwork, by a variety of factors such as thickening of the lens when a cataract forms or dilatation of the pupil in a darkened room, the peripheral iris can obstruct the meshwork completely, blocking the outflow of aqueous. The eye pressure then abruptly rises to about 30-40 mm Hg causing severe eye pain, swelling of the cornea, blurring of vision, haloes around lights and redness. Because of the rapid increase in pressure and the sudden development of symptoms, this condition is called an acute attack of glaucoma.

If caught early, the situation can be remedied with medications that can lower the pressure by reducing aqueous production and reversed with medications that pull the iris away from the angle. Laser iridotomy is performed to prevent further closure of the angle in conjunction with medical therapy. In effect, laser iridotomy punches a hole in the peripheral iris deepening the angle and keeping the iris away from the meshwork. This procedure that can also prevent angle closure attacks in predisposed eyes (see *Lasers in Glaucoma*).

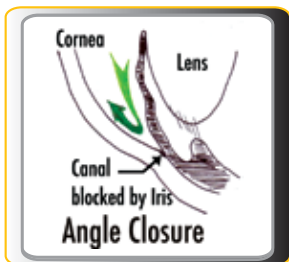
### Chronic Angle Closure Glaucoma

In predisposed eyes with very narrow angles, the iris can slowly or intermittently adhere to the meshwork. The block to aqueous outflow and rise in eye pressure occur slowly. Nevertheless, optic nerve damage proceeds once a certain pressure is reached. Pain, blurring of vision and redness are absent until pressure is very high and the disease is usually diagnosed later when most of the angle is already closed.

When the greater part of the canal is closed, say more than 180°, laser iridotomy may not be enough to reduce eye pressure since the adhesion of the iris to the meshwork is already irreversible. Chronic medications would be needed to keep the eye pressure down. Many times, surgical treatment is necessary to divert the aqueous elsewhere and provide an alternative pathway for drainage (see *Glaucoma Surgery*).

### Secondary Angle Closure Glaucoma

Inflammation inside the eye, trauma to the eye including surgery, and other eye diseases through a variety of complex mechanisms can also cause closure of the angle. Aside from treating the glaucoma with medicines and laser or surgical treatment, the underlying disease must also be controlled.



Consultation Hours: 8:00am - 6:00pm, Monday - Saturday  
G/F Belson House, 271 EDSA (near Connecticut St.), Mandaluyong City

Call for an appointment: Tel: 7217135 / 7216412

For more information about our facilities: <http://www.galileoeyecenter.com>

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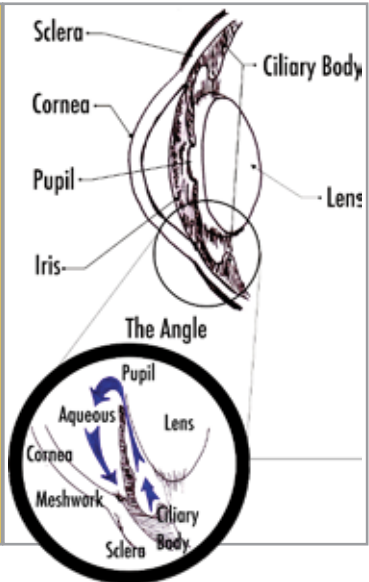
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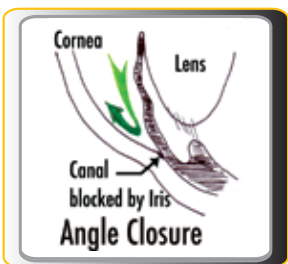
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