

Acute Angle Closure Glaucoma (ACG)

In ACG the fluid inside the front of the eye cannot reach the angle of the eye where the drainage system of the eye is located because the angle becomes blocked by part of the iris, the coloured part of the eye. The build-up of fluid inside the eye results in a sudden increase in pressure. This condition is an emergency, requiring immediate treatment to improve the flow of fluid.

Does it produce symptoms?

ACG produces noticeable symptoms because of the rapid build-up of pressure in the eye. Each individual may experience symptoms differently. These include:

- headache or severe pain in or around the eye(s)
- haloes (which may appear as rainbows) around lights
- blurred vision
- nausea and vomiting

Why does it occur?

The trabecular meshwork (or drainage system of the eye) is situated at a place in the eye called 'the angle'. In people with ACG, the angle is narrower than in normal eyes. The ability of fluid to pass out of the eye is compromised causing fluid and hence pressure to build up. If the meshwork becomes completely blocked fluid will continue to be made at a normal rate but will be unable to exit the eye, allowing the pressure in the eye to build up to a harmful level.

What are the risk factors?

1. Genetics. There is a tendency for this disease to be inherited.
2. Hyperopes: far-sighted people
3. Asian race
4. Increasing age

How is ACG treated?

Treatment is a combination of eye drops, oral medication, medication given intravenously (through the veins) and laser treatment. Your doctor will decide on the appropriate combination. Laser treatment involves using a laser beam to make a small opening in the iris, allowing aqueous fluid to pass directly to the anterior chamber. This procedure is called a laser peripheral iridotomy. Since it is common for the other eye also to have a narrow angle, laser peripheral iridotomy on the unaffected eye is done as a preventative measure.

What is the long-term damage from ACG?

Scarring of the meshwork may occur and result in permanent glaucoma, which is much more difficult to control. Cataracts may also develop. Damage to the optic nerve may occur and vision can be permanently lost.