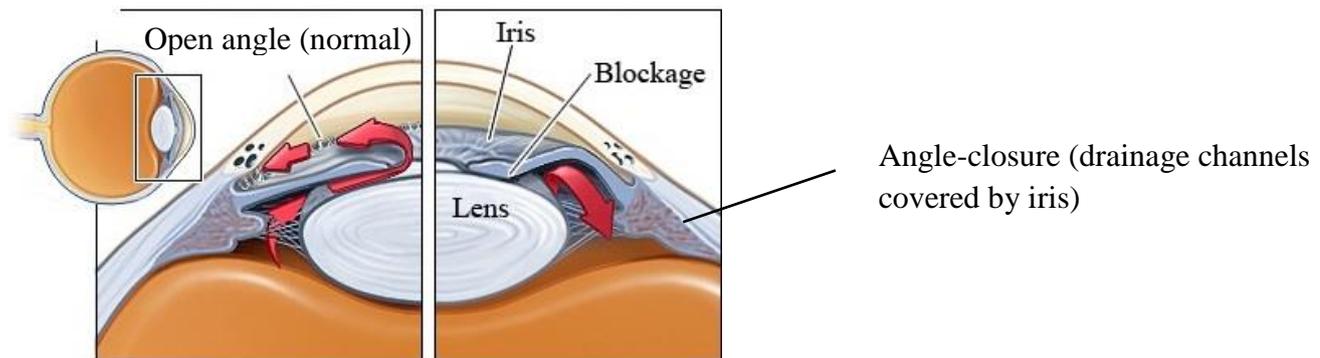


Angle-closure disease and angle-closure glaucoma

Angle-closure disease occurs when the coloured part of the eye (the iris) covers and blocks the fluid drainage channels in the 'angle' inside the eye. The eye is a pressurised ball and if enough of the drainage channels are blocked the pressure can rise too high. This can occur suddenly with pain, but more commonly occurs gradually without one being aware of it. High pressures can cause permanent damage to the nerve at the back of the eye (this is called glaucoma) which can result in blindness.

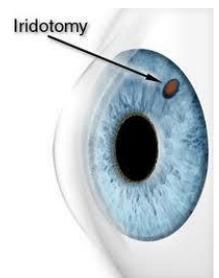


The most common cause of the iris blocking the drainage channels (angle-closure) is the lens getting too big for the eye. As we age the lens inside the eye gets bigger but the eyeball does not. In some people the front part of the eyeball is not large enough to accommodate the growing lens. The growing lens can then block the flow of fluid in the eye, and push the iris against the drainage channels (angle closure).

The aim of treatment in angle closure disease is to open or unblock the angle (stop the iris blocking the drainage channels). This will prevent the pressure going higher in the future and will often lower the pressure if done early. If the pressure is still high after the angle is open then treatment is aimed at lowering the pressure. The most commonly performed treatments to open the angle are laser iridotomy and lens replacement.

Laser iridotomy is a small hole made in the iris with a laser. This can stop any blockage of the flow of fluid in the eye caused by the lens and can open angle. Even if the angle is not opened by the treatment, it should prevent a sudden increase in pressure that can occur with angle closure disease.

Lens replacement is the same as a cataract operation (the lens is called a cataract when it becomes cloudy). The natural lens of the eye is replaced by an artificial plastic lens. The artificial lens has about $\frac{1}{4}$ of the thickness of the natural lens and will of course not keep getting larger with age. Having the thinner artificial lens in the eye creates a lot more room and usually allows the iris to regain a normal position away from the drainage channels (an open angle).



If the angle has been opened by iridotomy or lens replacement, but the pressure has not lowered enough then it can be brought down with a different type of laser treatment, eyedrops, or other types of surgery. It is important to remember that if drops alone are used to lower the pressure, they will not open the angle and will not solve the underlying problem, and will thus make any angle opening treatments less likely to work in the future.