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Our vision: Is for Australians to be free of glaucoma blindness

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## Pigment Dispersion Syndrome

Glaucoma is usually caused by an increase in intraocular pressure (IOP) which can damage the optic nerve. Pressure can be elevated if the trabecular drainage tissues become blocked by particles of pigment.

### Causes

The focusing lens of the eye is held in position by scaffolding called the zonule. If the iris (the coloured part of the eye) bows backwards, it can rub against these zonules. The pigment granules, which give the iris its colour, may be dislodged. They flow with the aqueous fluid until the trabecular mesh traps them as the fluid leaves the eye – much like a strainer traps tea leaves. As more and more pigment granules become caught, the trabecular drain works less and less efficiently. The eye pressure starts to rise. Some eyes tolerate a great deal of pigment dispersion before this occurs; other eyes are not so fortunate.

### Who is at risk?

Eyes that are modestly short-sighted are the ones most commonly affected by pigment dispersion. Perhaps this is because their shape lends itself to rubbing between iris and zonule. We do not know why men are affected more than women, or why it classically begins before the age of 35 years. Pressure elevation may not follow until many years later but, because it may do so suddenly, patients whose eyes demonstrate pigment dispersion need to be examined regularly.

## Symptoms

Eyes with this syndrome can have a sudden release of pigment after pupil dilation or with jarring (e.g. running on hard surfaces). There may be a sudden pressure rise with blurred vision and coloured rings around lights.

## Treatment

Your ophthalmologist may perform a procedure using a laser to alter the iris profile in an attempt to avoid the rubbing between the iris and zonule structures. Treatment will be started once the pressure rises. In the first instance this consists of drops. If medical treatment fails to control eye pressure adequately, other laser treatment may also be used. If all this fails to control the pressure at levels safe for the optic nerve, then surgery may become necessary.

## Ongoing management

As with other types of glaucoma, regular review by an eye specialist is critical to ensure that you do not develop substantial vision impairment.

