

⊗ **Laser peripheral iridotomy can reduce the intraocular pressure in pigment dispersion syndrome, but may not prevent glaucoma**

The Science behind the Tip

Nd-YAG laser peripheral iridotomy (PI) eliminates the reverse pressure gradient and intermittent posterior bowing of the peripheral iris in individuals with pigment dispersion syndrome¹. In patients under the age of 40 years, this can lead to a reduction in intraocular pressure (IOP) in time.

Gandolfi et al. reported that after 2 years of follow-up, one treated eye (4.7%), compared with 11 untreated eyes (52.3%), demonstrated an IOP elevation of more than 5 mmHg². A subsequent retrospective audit undertaken by members of the *American Glaucoma Society* was inconclusive on the benefit of PI in the long-term IOP control of patients with pigmentary glaucoma³. However, in a recent prospective randomised controlled trial of 116 patients with pigment dispersion syndrome followed for 3 years, laser PI did not prevent the development of pigmentary glaucoma⁴. A longer period of follow-up is needed before this result can be considered conclusive.

References

1. Breingan PJ, Esaki K, Ishikawa H *et al.* Iridolenticular contact decreases following laser iridotomy for pigment dispersion syndrome. *Arch Ophthalmol.* 1999;117:325-28.
2. Gandolfi SA, Vecchi M. Effect of a YAG laser iridotomy on intraocular pressure in pigment dispersion syndrome. *Ophthalmology.* 1996;103:1693-5.
3. Reistad CE, Shields MB, Campbell DG *et al.* The influence of peripheral iridotomy on the intraocular pressure course in patients with pigmentary glaucoma. *J Glaucoma.* 2005;14:255-9.
4. Scott A, Kotecha A, Bunce C *et al.* Nd:YAG laser iridotomy does not prevent onset of pigmentary glaucoma. *Ophthalmology.* 2011;118:468-73.