



**Trabecular meshwork bypass surgery should be avoided if high episcleral venous pressure is suspected**

### ***The Science behind the Tip***

The intraocular pressure lowering effect of procedures that attempt to enhance flow of aqueous into Schlemm's canal by bypassing or cutting the trabecular meshwork is limited by episcleral venous pressure and the resistance of the distal outflow pathways (e.g. collector channels)<sup>1-3</sup>. While this reduces the risk of hypotony, it also limits ability to achieve low target intraocular pressures. Normal episcleral venous pressure is estimated to be between 7 and 11 mmHg<sup>1</sup>, however the average IOP achieved with TM bypass procedures is higher, typically in the mid to high teens<sup>4</sup>. Patients with glaucoma due to Sturge-Weber syndrome have been reported to have a mean episcleral venous pressure of almost 21 mmHg<sup>5</sup>.

Trabecular meshwork bypass procedures are contraindicated in patients with high episcleral venous pressure due to a higher risk of bleeding and low probability of success.

### ***References***

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- 5) Shiao T, Armogan N, Yan DB, Thomson HG, Levin AV. The role of episcleral venous pressure in glaucoma associated with Sturge-Weber syndrome. *J AAPOS* 2012;16:61-4.