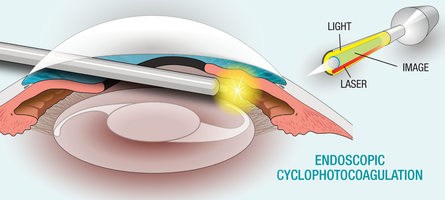
MANAGING GLAUCOMA WITH MIGS

Several **microinvasive glaucoma surgery (MIGS)** techniques are available or in development to target the various aspects of normal aqueous dynamics with minimal disruption to normal ocular anatomy.

BLEB-FREE PROCEDURES

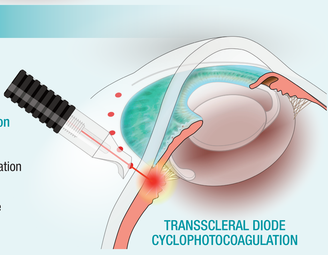


ENDOSCOPIC CYCLOPHOTOCOAGULATION

INFLOW

Techniques to ablate the ciliary body epithelium and reduce aqueous production

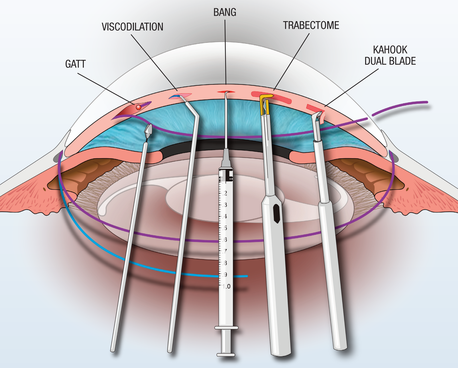
- Endoscopic cyclophotocoagulation
- Micropulse diode
- Transscleral diode



TRANSSCLERAL DIODE CYCLOPHOTOCOAGULATION

OUTFLOW

Approaches to enhance outflow across the trabecular meshwork and through Schlemm's canal

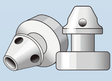


WITHOUT STENTING:

- Gonioscopy-assisted transluminal trabeculotomy (GATT)
- Viscodilation (OMNI)
- Bent-angle needle goniotomy (BANG)
- Trabectome
- Kahook Dual Blade (KDB; goniotomy blade, New World Medical)

WITH STENTING:

- Canaloplasty
  - 360° cannulation of Schlemm's canal with a tension suture placed using a microcatheter
- iStent Inject W (Glaukos)
  - Second-generation trabecular micro-bypass implant
  - Wide-flange base with four 50-µm outlets



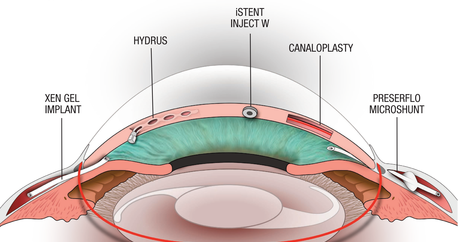
- Hydrus (microstent procedure, Ivantis)
  - Flexible aqueous drainage device
  - Acts as an intracanalicular scaffold by dilating 3 clock hours of Schlemm's canal

BLEB-FORMING PROCEDURES

- XEN Gel Implant (glaucoma treatment system, AbbVie)
  - 6-mm porcine gel stent
  - 45-µm internal diameter lumen
  - Inserted ab interno with a 27-g needle delivery system via a small incision
  - Used in conjunction with mitomycin C although conjunctiva is not typically opened

- Preserflo MicroShunt (Santen)[a]
  - 8.5-mm non-valved shunt
  - Made of biocompatible, bioinert poly(styrene-*block*-isobutylene-*block*-styrene)
  - 70-µm lumen diameter
  - Inserted ab externo with an open conjunctival technique (requires mitomycin C)

[a]*Not approved by the US Food and Drug Administration.*



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