

# ANTERIOR LASER LENSES



# Volk Iridotomy Lenses

## *VIRID, VMPIRID, VBIRID*

- **Primary Application**

- Iridotomy is used to treat Primary Angle-Closure Glaucoma (PACG) and Closed-Angle Glaucoma
- Also known as: Laser Periphery Iridotomy (LPI)

- **Intended Purpose of Iridotomy**

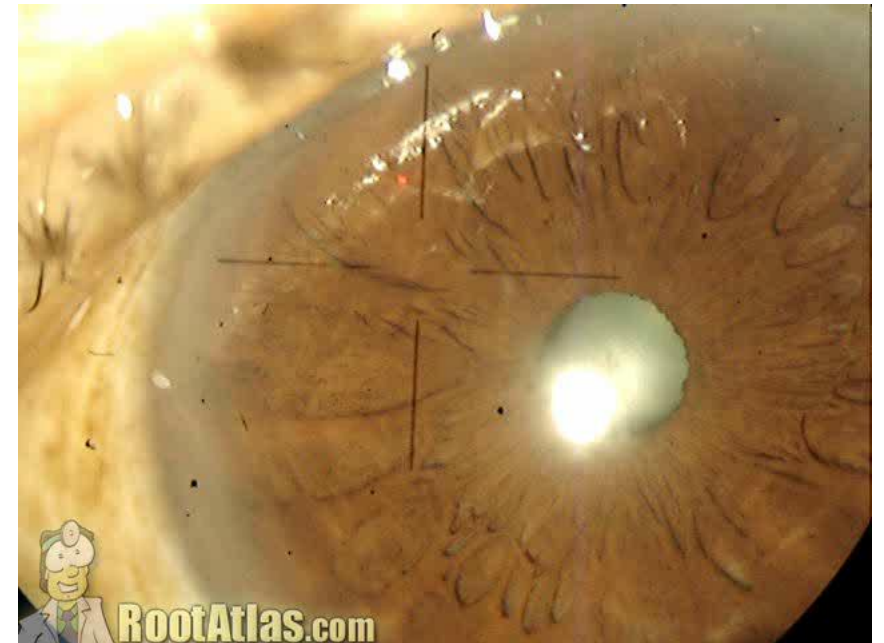
- Restore fluid flow in the anterior chamber to reduce elevated intraocular pressure (IOP) associated with Primary Angle-Closure Glaucoma (PACG)

- **Treatment Type**

- Laser, YAG
- Energy: 3-6 mJ, 2-3 pulses per shot (energy settings vary by laser and color of iris; dark iris requires more energy)
- Offset: 100-250 um posterior (depends where doctor aims)

- **Treatment Location**

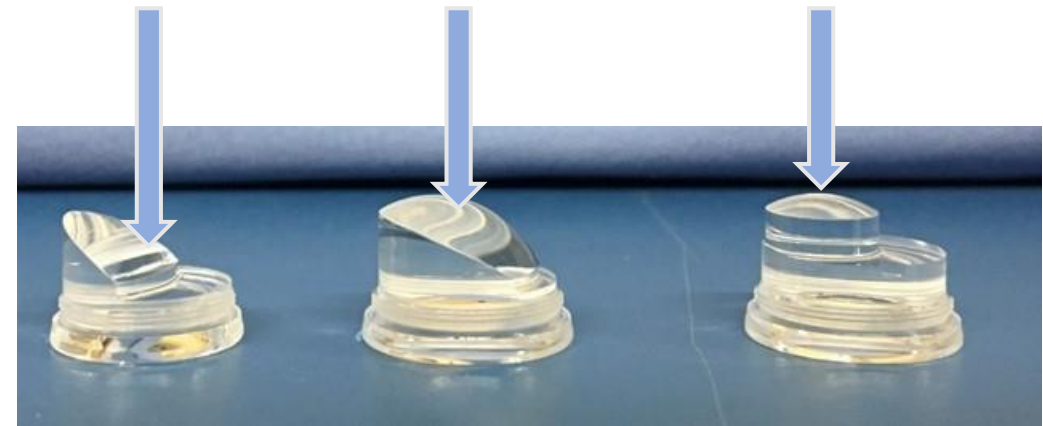
- Peripheral iris



# Volk Iridotomy Lenses

## What Does the "Button" Do?

- **Helps to aim the laser beam in the proper location**
  - VIRID: Focus in the center of the button
  - VMPIRID: Focus in the center of the button
  - VBIRID: Focus in between the two orientation features, aim slightly below center
- **Focuses the laser beam tightly on the treatment spot of the iris**
  - A tighter focus on the treatment site helps disperse the laser beam posterior to the treatment site which minimizes damage to the retina
  - Using a lens makes this procedure safer for the patient



VBIRID

VMPIRID

VIRID

Lens	Image Magnification	Laser Spot Mag
Blumenthal Iridotomy   VBIRID	1.54x	0.65x
Mag Plus Iridectomy   VMPIRID	1.60x	0.63x
Iridectomy   VIRID	1.70x	0.58x

# Volk SLT Lens – VSLT and VMSLT

## • Primary Application

- Selective Laser Trabeculoplasty
- Restore fluid flow in the anterior chamber to reduce elevated intraocular pressure (IOP) associated with Primary Open-Angle Glaucoma (POAG)

## • Treatment Type

- Laser, SLT
- Treatment spot size is fixed at 400 um
- Energy: 0.5-1.8 mJ, typically

## • Treatment Location

- Trabecular meshwork, anterior chamber

Volk SLT lens



Volk Rapid SLT lens (4-mirror SLT lens)



LENS	IMAGE MAG	LASER SPOT MAG
SLT Lens	1.0x	1.0x
Rapid SLT	1.0x	1.0x

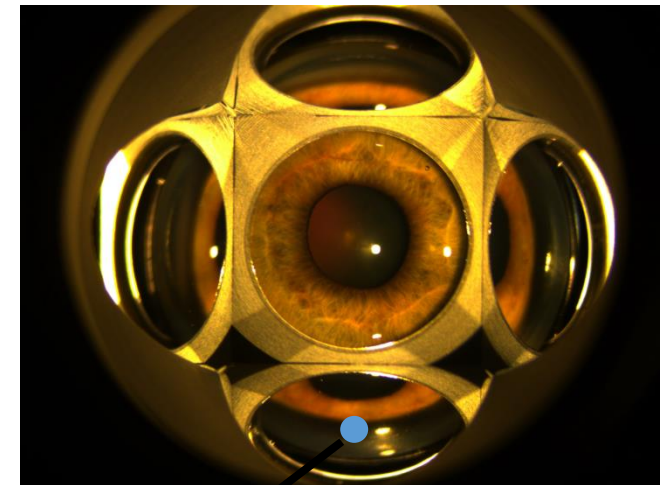
## SLT Tips

- Lens has one mirror that allows visualization of the trabecular meshwork; the doctor performs 180°-360° treatment by rotating the lens in a circle
- Treatment spot size is fixed at 400 um
  - Large enough to treat the whole width of the meshwork with some overspill
  - There is no negative clinical impact of laser overspill because only the pigmented cells are being activated by the SLT laser
- Doctor should start with an energy level of 0.8 mJ for lightly pigmented eyes and an energy level of 0.4 mJ for heavily pigmented eyes
  - Increase the energy level in 0.1 mJ increments until “Champaign bubbles” appear
  - After the appropriate energy level is found, the doctor can decrease the energy level if they prefer to treat without micro-bubble formation
- Inferior quadrant will have the most pigment and may need the lowest energy level to produce a therapeutic benefit; the superior quadrant will have the least amount of pigment and may also be difficult to visualize
  - Some doctors adjust energy level as they go; some doctors keep the same energy level for all 360°

# The Volk Rapid SLT is Designed for a Highly Efficient Laser Procedure

- The Volk Rapid SLT has four reflective surfaces instead of one
- Four surfaces enable doctor to obtain  $\sim 360^\circ$  view of the Trabecular Meshwork at once
- The Rapid SLT design enables selective laser trabeculoplasty procedure to be performed with minimal rotation of the lens
- Minimal rotation results in a highly efficient laser procedure and enhanced ease of use for the doctor and maximizes patient comfort

The Volk Rapid SLT Lens Cuts Laser Procedure Time by Almost Half while Enhancing Ease of Use and Patient Comfort



**Four (4) total internal reflective surfaces** provide simultaneous views of the four quadrants of the trabecular meshwork

# Volk Capsulotomy Lens - VCAPS

## • Primary Application

- Facilitate laser removal of Posterior Capsular Opacification (PCO), or cloudiness, following cataract surgery
- Capsulotomy is safer for the patient when a lens is used
- [https://www.youtube.com/watch?v=2a\\_yrejwv-o](https://www.youtube.com/watch?v=2a_yrejwv-o)

## • Intended Purpose of Capsulotomy

- Weeks, months, or years after cataract surgery, the posterior capsule can become cloudy. Laser surgery can be used to remove the cloudy portions of the posterior capsule. This allows light to pass through and restores clear vision for the patient.

## • Treatment Type

- Laser, YAG
- Energy: 0.5 – 2.0 mJ



LENS	IMAGE MAG	LASER SPOT MAG
Capsulotomy	1.57x	0.63x

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