



**DEL NEGRO & SENFT**  
**EYE ASSOCIATES**

**NEPTUNE • BRICK • RED BANK**

**Ralph G. Del Negro, DO**

# IMPORTANCE OF ANNUAL EYE EXAMS

During your routine exam much more is done than just determining your prescription for eyeglasses or contact lenses.

Eye physicians also check your eyes for common eye diseases and evaluate your eyes as an indicator of your overall health.

# Trending Topics

## Virtual Life And Blue Light Lenses

How can you combat the effects of constant exposure and straining due to Blue Light?

Sources of blue light have expanded over the years to include TVs, Computer Screens, Tablets, and Smartphones-increasing prolonged exposure. Zoom meetings and virtual learning has increased time spent in front of the “screen”

Here are some symptoms to look out for:

- Digital eyestrain
- Headaches
- Physical and mental fatigue
- Loss of Concentration
- Dry and irritated eyes

Blue Light lenses can serve to protect, increase your comfort level, and perhaps even deliver a more restful night's sleep when utilized 2-3 hours before bed.

*Source: Aspex® Eyewear Group, [aspexeyewear.com](http://aspexeyewear.com)*

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## WHAT CAN HAPPEN IF YOU DON'T TAKE ROUTINE CARE SERIOUSLY?

Treatable diseases like **Glaucoma** and **Diabetes**, if ignored, can cause permanent vision loss.

Comprehensive exams that are extremely thorough—allowing for accurate diagnosis, treatment, and/or monitoring of each patients' individual condition.

Staying current with your eye exams will not only help prevent serious eye conditions in the future, but can also reveal health problems that may otherwise go unnoticed.

# Coronavirus and Your Eyes

What should I know?

Most common symptoms are a fever, coughing, and breathing problems.

Rarely, it also can cause an eye infection called **conjunctivitis**. Symptoms. Based on data so far, doctors believe that **1%-3%** of people with COVID-19 will get conjunctivitis, also called pinkeye.

## Here's how to **protect your eyes**:

- Avoid rubbing your eyes, especially in public and with unwashed hands.
- Switch from contact lenses to glasses. While there's no evidence that glasses or sunglasses decrease your risk for infection, some people wearing contacts may rub their eyes more.
- Follow other recommended practices. **Wash your hands frequently**, limit touching your face, avoid contact with sick people, follow physical distancing best practices, and **wear a mask** in public.

**\*\*Having pink eye or irritated eyes **does not** mean you have COVID-19.**

There are many other reasons your eyes might be red or swollen, including:

- allergies
- getting foreign objects in your eyes
- digital eyestrain

Eye-related symptoms are rare for people at the beginning of COVID-19.

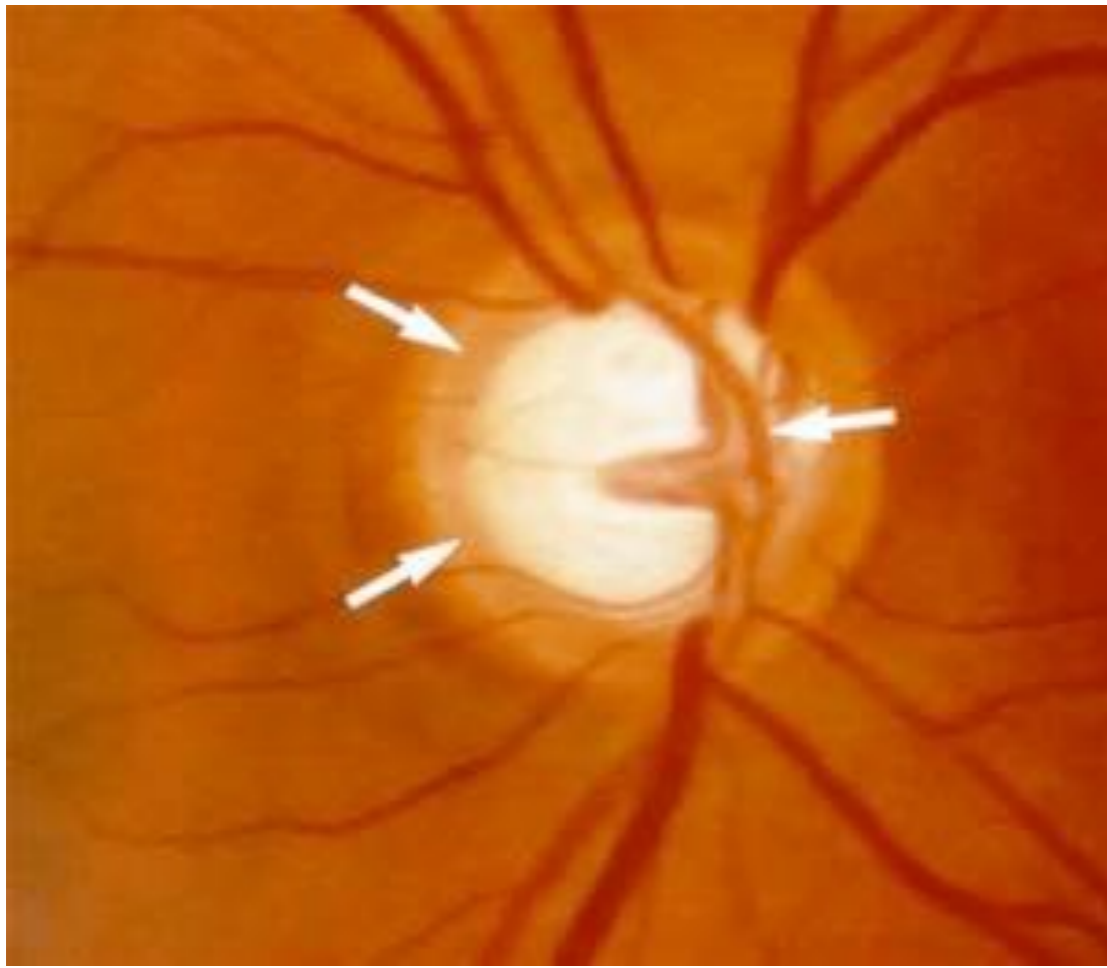
# GLAUCOMA

“The Sneak Thief Of Sight”

- Glaucoma is a disease that can slowly destroy the delicate nerve fibers that carry signals from the back of the eye to the brain.
- **High pressure** within the eye is responsible for the damage, but even patients with normal pressure can experience loss of this important nerve function due to glaucoma.

- It's important to be checked **yearly** to ensure glaucoma is not present, because patients do not always feel the symptomatic elevated eye pressure as it slowly robs them of their sight.
- Because it can be **inherited**, if one family member has glaucoma, other family members should be checked.

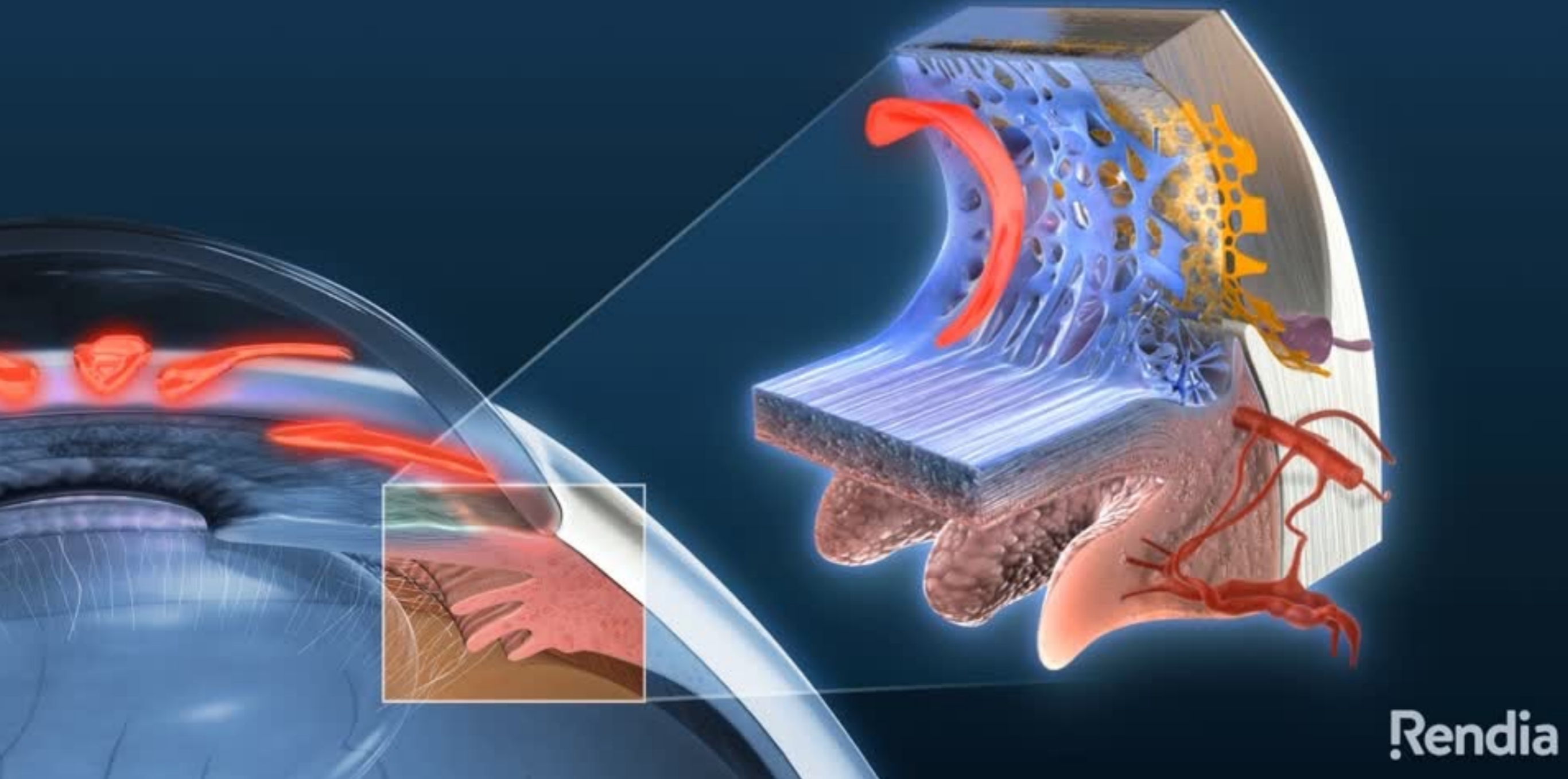
- While glaucoma typically affects people age 40 and older, it can strike at any age.
- Glaucoma is called “the silent thief of sight” because there is no pain or noticeable change in vision during the early stages of the disease.
- No treatment can restore vision already lost to glaucoma. The goal of treatment is to prevent further vision loss.



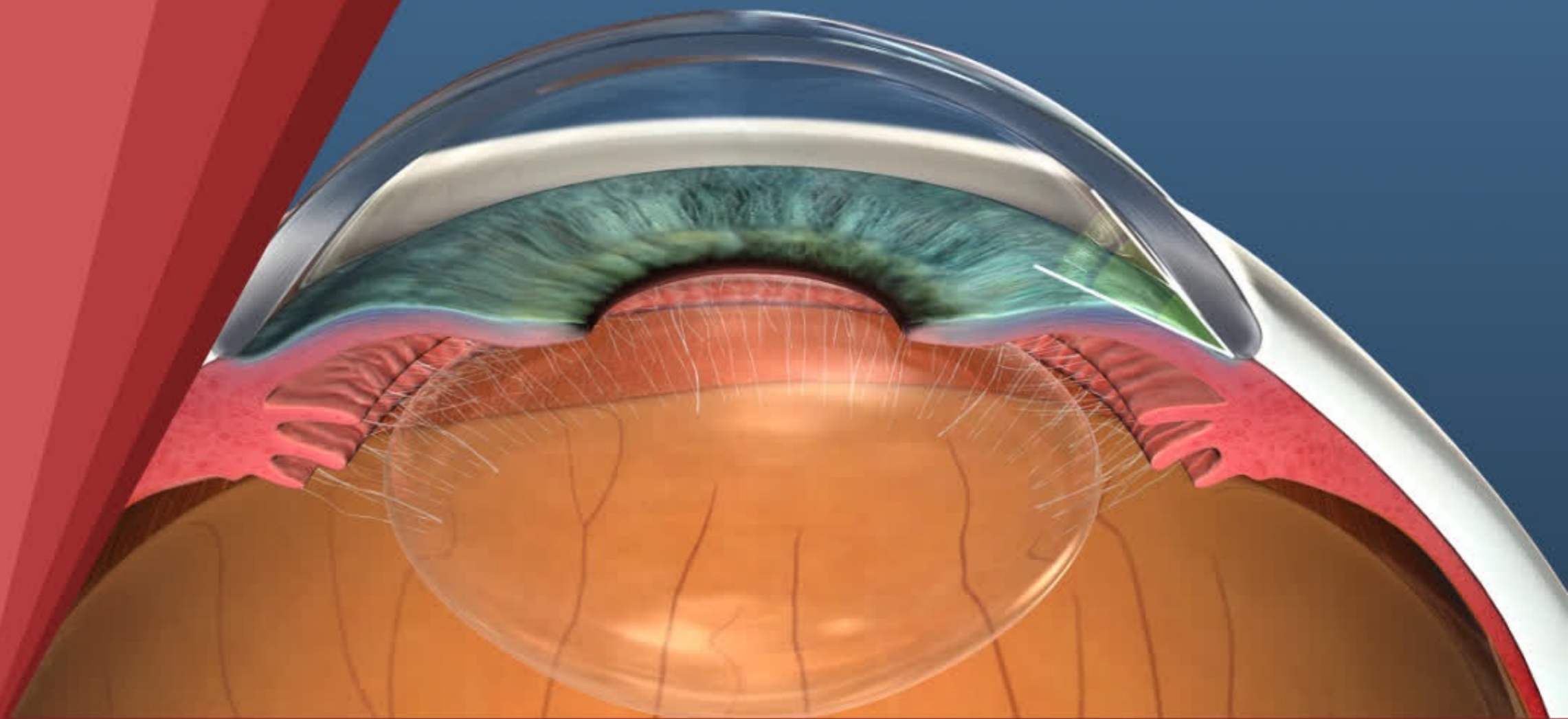
# VISION WITH GLAUCOMA



# GLAUCOMA: PRIMARY OPEN ANGLE

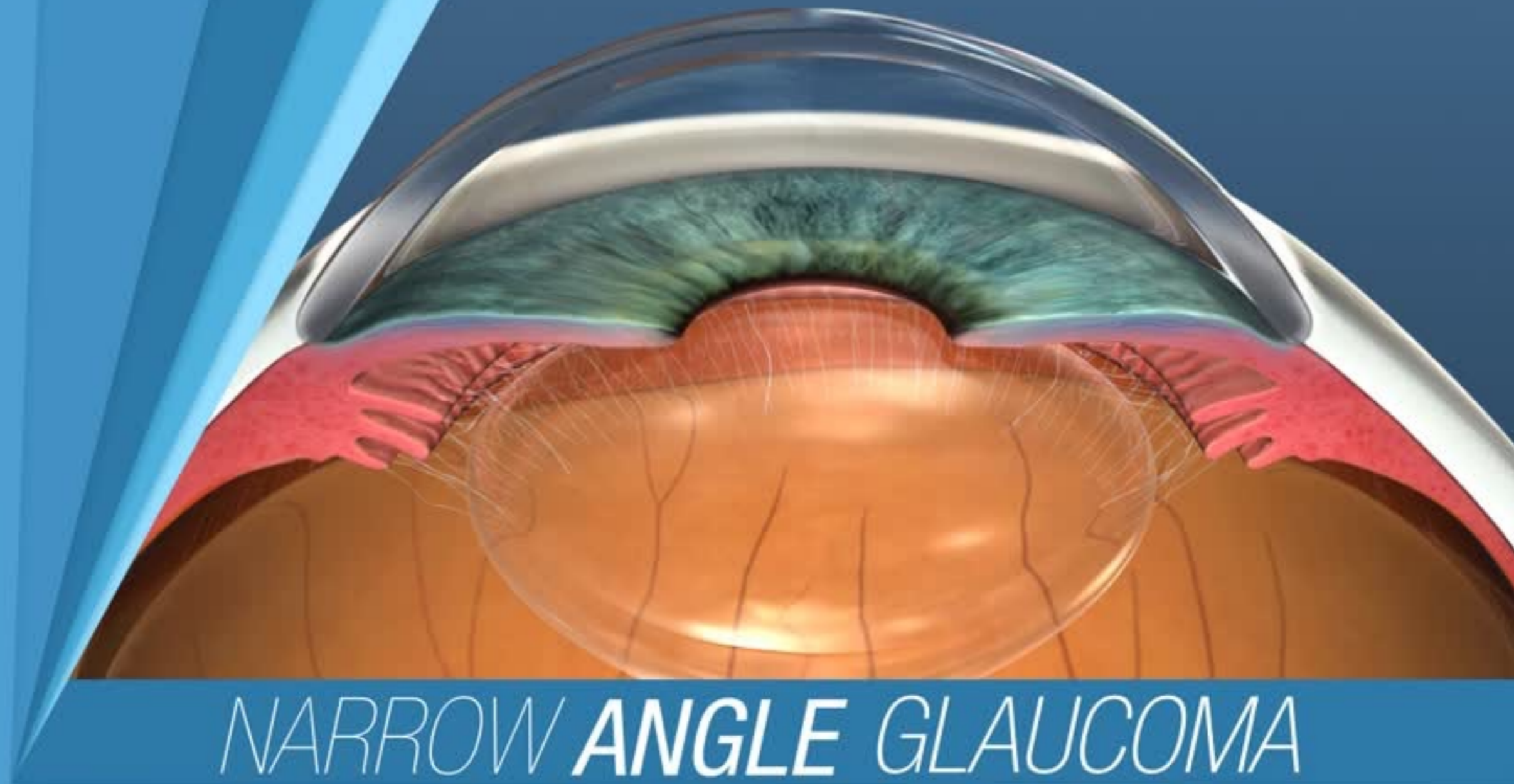


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## *ACUTE ANGLE **CLOSURE** GLAUCOMA*

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# TREATING GLAUCOMA WITH MEDICATION

- Various medications are sometimes useful in treating glaucoma.
- Beta-blocker eye drops may reduce the amount of fluid produced by the eye.
- Prostaglandin analogs and alpha-2 agonists may also lower intraocular pressure.

# TREATING GLAUCOMA WITH TRABECULECTOMY

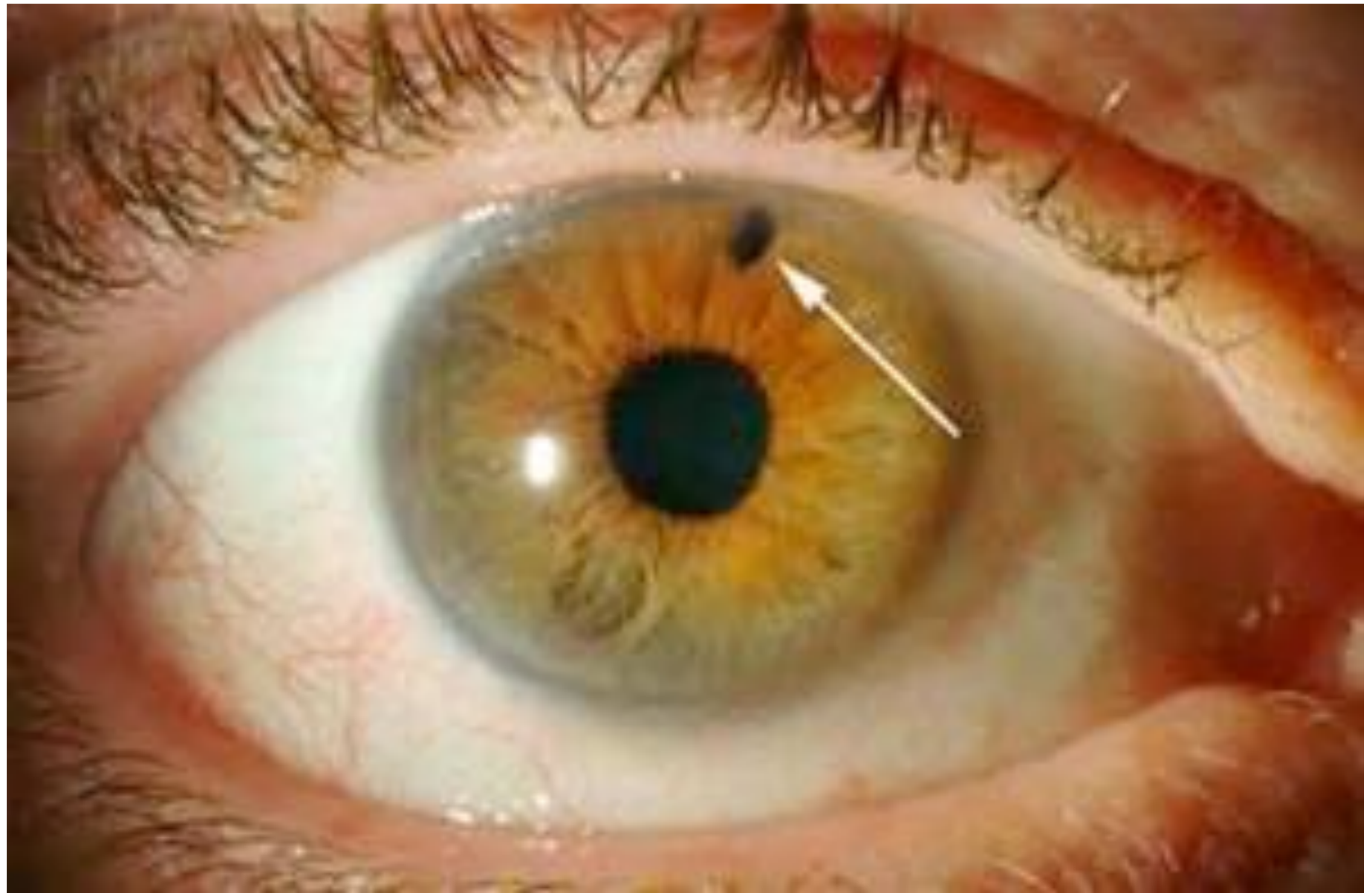
- Dr. Del Negro may recommend a surgical procedure called “trabeculectomy” if medication, eye drops, or another procedure have not been effective in lowering the pressure within your eye.
- This procedure helps to lower pressure by altering the eye’s drainage system and creating a controlled leak of fluid.



## **TREATING GLAUCOMA WITH PERIPHERAL IRIDOTOMY**

Iridotomy is another surgical procedure that may be recommended to lower pressure within your eye.

When the eye's iris blocks the drainage of fluid, Dr. Del Negro uses a laser to create a tiny hole in the iris to improve drainage.



# **TREATING GLAUCOMA WITH ECP (ENDOSCOPIC CYCLOPHOTOACOAGULATION)**

- The objective of the combined cataract/ECP procedure is to lower eye pressure and eliminate the need for glaucoma medication.
- After Dr. Del Negro removes the cataract by creating small incisions, he will then insert the endoscopic laser probe through those same incisions to begin the ECP portion of the procedure. Once inside the eye, the probe is carefully guided by Dr. Del Negro. He will use a video monitor to locate the ciliary process tissue in order to deliver laser treatment to that specific tissue. This additional step adds a negligible amount of time to the overall cataract procedure.



# MICROPULSE LASER TRABECULOPLASTY (MLT)

**Indications-** The MLT surgeries are used for patients with **open angle glaucoma**. The laser is utilized to treat the drainage system of the eye known as the trabecular meshwork. Treating this area of the natural internal draining system is designed to improve the outflow of fluid from the eye. This type of laser surgery will be effective in some patients but not others. Your response is determined by the type of glaucoma you have and the specific structures found in your drainage system. Dr. Del Negro cannot predict how well the laser will work before the laser surgery.

# MLT PROCEDURE

- The laser machine is similar to the examination microscope that the Ophthalmologist uses at each visit to look into your eyes.
- The laser itself makes little noise and flashes a light about as bright as the flash on a camera.
- Nearly all patients find the procedure comfortable and pain free. The procedure generally takes 10 – 20 minutes.



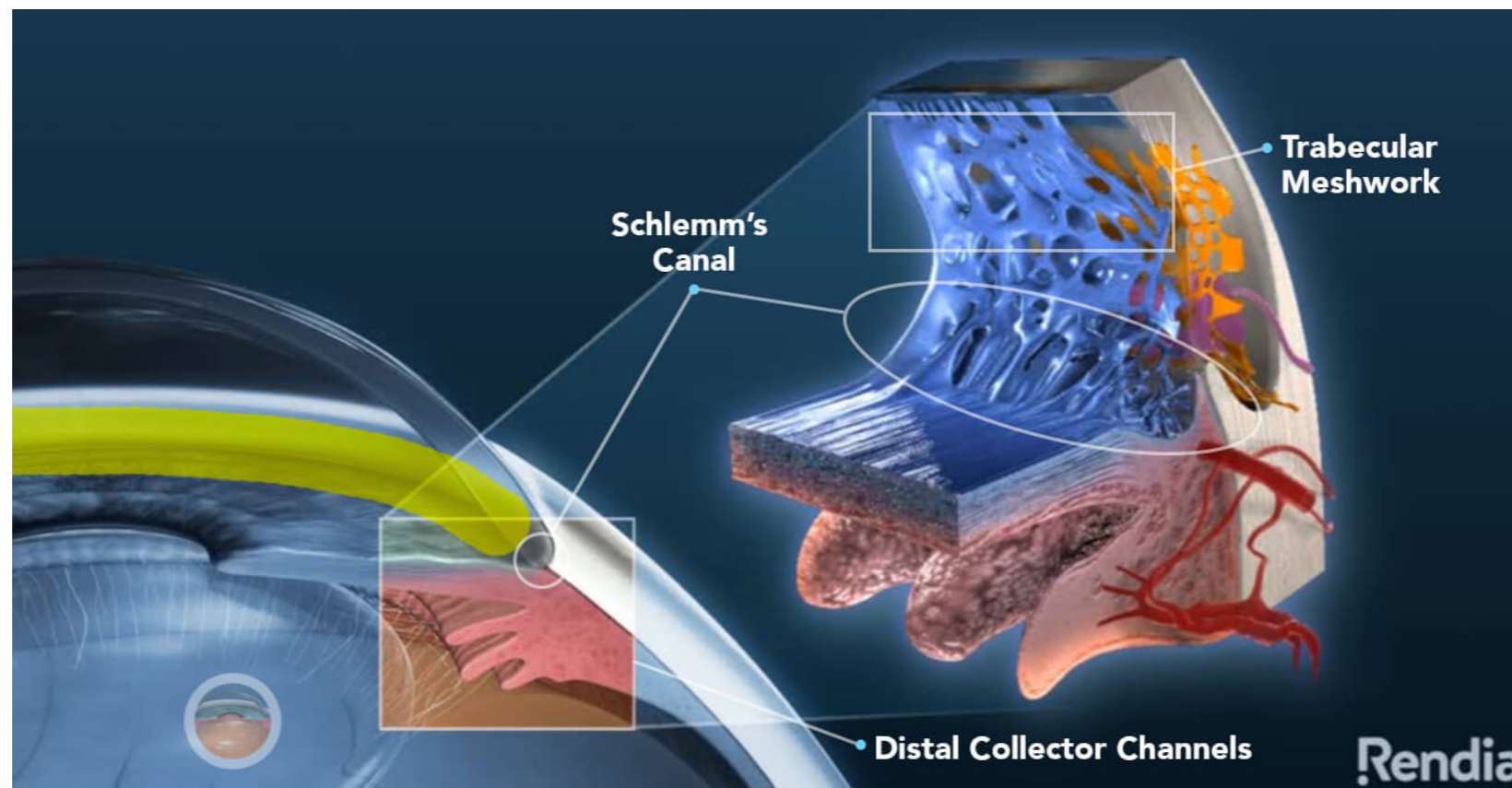
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## Micro-invasive Treatment Approach with OMNI® (Canaloplasty and Goniotomy)

### Plumbing Analogy for the Outflow System That Drains Fluid From The Eye:

#### Drain:

- 1 Cover-Trabecular Meshwork
  - 2 Pipes Under The Sink-Schlemm's Canal
  - 3 Pipes Heading Out Of The House-Distal Collector Channels
- \*Just like in a clogged sink, in Glaucoma, there can be resistance in any or all of the 3 parts of the drain



## **Treats Three Points of Resistance: Trabecular Meshwork, Schlemm's Canal, Distal Collector Channels**

You would be informed which procedure below you are a candidate for (or both) and either use a pre-existing incision if the procedure is being done at the time of cataract surgery or he will simply make a small incision in the cornea to access the “natural drain.”

### **Two Implant-Free Procedures**

#### **Viscoelastic Delivery:**

Your physician will use the cannula of the OMNI device to insert a thin tube (microcatheter) into the main pipe of the drain (Schlemm's Canal) to deliver a small amount of elastic fluid (viscoelastic).

#### **Trabeculotomy:**

Your physician can also thread the tube (microcatheter) into the main pipe (Schlemm's Canal) and remove the first layer of potential resistance, Trabecular meshwork which is the top of the drain.

# What is Diabetes?

- The Centers for Disease Control defines Diabetes as a condition in which the body does not properly process foods for use as energy. When you have Diabetes, your body either doesn't make enough insulin or can't use its own insulin as well as it should. This causes **sugars to build up in your blood.**
- Serious Health issues can occur, one of

# Diabetic Retinopathy

- This disease occurs when there is **damage to small blood vessels** that nourish tissue and nerve cells **in the retina**.
- According to the National Eye Institute, there are Four Stages of Diabetic Retinopathy

# The Four Stages of Diabetic Retinopathy:

- **Mild Non-Proliferative Retinopathy-**  
Swelling occurs in the retina's small blood vessels
- **Moderate Non-Proliferative Retinopathy**
- **Severe Non-Proliferative Retinopathy-**  
Blood vessels become blocked
- **Proliferative Retinopathy-**Hemorrhages in the retina or vitreous, possible retinal

# **Symptoms of Diabetic Retinopathy**

- **Blurred or Double Vision**
- **Flashing Lights**
- **A veil, cloud or streaks of red in the field of vision, or dark, floating spots**
- **Blind or blank spots**

# Ocular and Functional Effects of Diabetic Retinopathy

- Fluctuating vision in response to changing blood glucose levels
- Blurred central vision from macular edema can interfere with reading
- Decreased visual acuity can interfere with seeing markings on insulin syringe or display on blood glucose monitor
- Blind spots can make it difficult to judge the size of food portions
- Decrease in depth perception, in combination with decreased visual acuity can make it difficult to see curbs and steps.

# Recommended Follow-up

- If you are at high risk for Diabetes you should have **regular, dilated eye exams**.
- If you have been diagnosed with Diabetes you need to have **dilated eye exams every year**.

# Important to Note:

## Three of the Leading Causes of Blindness in U.S are associated with Diabetes

- Cataract
- Macular Degeneration
- Glaucoma
- Diabetic Retinopathy

# Cataracts

- Very Common After Age 60
- Leading Cause Of Blindness Worldwide
- 20.5 Million Americans Have Visually Significant Cataracts

# Cataract Symptoms

- Blurred Vision
- Glare
- Change In Color Vision
- Halos
- Double Vision

# What Is A Cataract?

- Clouding Of Natural Len
- Number One Cause = Aging
- Other Causes - Medication, Trauma, **Diabetes**, Congenital

