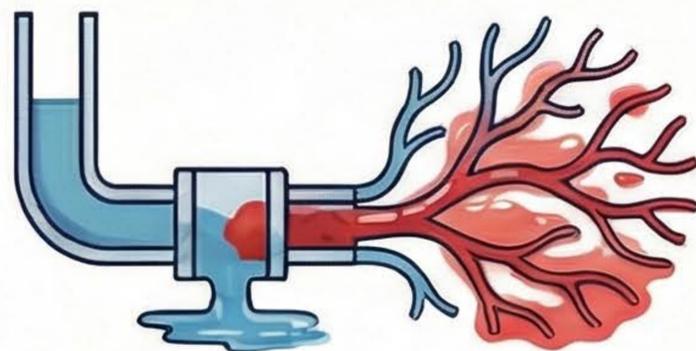


# Retinal Vascular Occlusions: A Clinical Guide for Ophthalmic Technicians

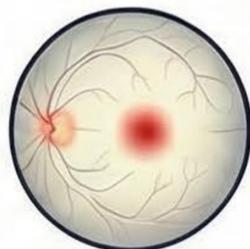
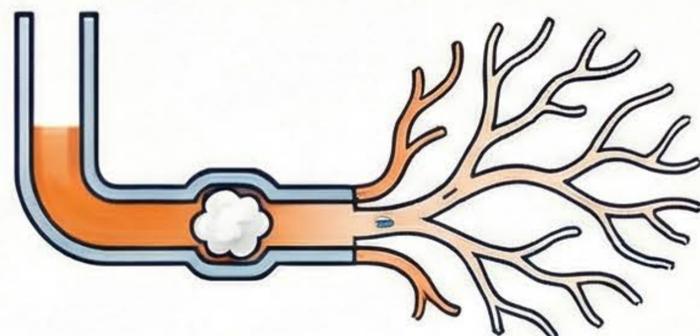
## RVO: "The Clogged Drain"



**Classic Fundus Appearance:**  
"Blood Everywhere"  
(Hemorrhages)

**Urgency:** Urgent due to macular edema risk

## RAO: "The Clogged Pipe"



**Classic Fundus Appearance:**  
"Pale/White" Retina,  
"Cherry-Red Spot"

**Urgency:** **EMERGENCY** (Stroke Risk) requires cardiac/carotid workup

## Comparison of the "Big Four": Clinical Features

Feature	BRVO (Branch Retinal Vein Occlusion)	CRVO (Central Retinal Vein Occlusion)	BRAO (Branch Retinal Artery Occlusion)	CRAO (Central Retinal Artery Occlusion)
Location				
Primary Sign	Wedge-shaped hemorrhage	Hemorrhage in 4 quadrants	Localized retinal pallor	Diffuse whitening/pallor
Symptom	Sectoral vision loss	Blurred vision	Field out	Severe vision loss (CF/LP)
Mechanism	Compression at AV crossing	Thrombosis in optic nerve	Embolus at vessel branch	Embolus or Thrombosis
Urgency	Urgent	Urgent	Emergency (Stroke Risk)	Emergency (Stroke Risk)

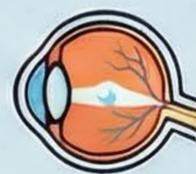
## Diagnostic Imaging Guide: Tools for Assessment



**Fundus Photography: Capturing the Baseline:** Use wide-field imaging to document extent of hemorrhages ("cotton-wool spots") in RVO or search for refractive emboli (plaques) in RAO.



**Fluorescein Angiography: The Gold Standard:** FA assesses blood flow, RVO shows delayed filling & leakage, RAO shows abrupt dye cutoff or very slow "leading edge".



**OCT: Monitoring Macular Edema**  
Primary tool for monitoring Cystoid Macular Edema (CME) in RVO and detecting hyper-reflectivity in acute RAO.



**OCT Angiography (OCT-A)**  
Non-invasive method to visualize "capillary dropout" and ischemia in superficial and deep vascular layers.

## The Technician's Role & Tips



**Triage and History**  
Dig for risk factors (hypertension, diabetes, smoking); immediate triage if sudden vision loss or "curtain" reported.



**Clinical Vitals and Workup**  
Always check Blood Pressure in office (high BP is a trigger); capture OCT and Fundus photos before the doctor enters.



**Technician Tip: RAO Imaging**  
For artery occlusions, filling is delayed; start capturing images immediately after injection to catch the fleeting arterial phase.

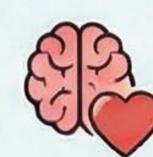


**Technician Tip: RVO Imaging**  
Focus on capture of the peripheral retina to identify areas of peripheral ischemia and capillary non-perfusion.

## Management & Treatment Strategies



**First-Line Treatment for RVO**  
Anti-VEGF injections (e.g., Eylea, Lucentis, Vabyamo) to "dry up" macular edema, with steroids like Ozurdex as second-line.



**The Reality of RAO Treatment**  
Once retinal infarction happens, vision restoration is rare; primary goal is preventing a future stroke or heart attack through immediate systemic referral.



**The "Whole Patient" Approach:** Retinal occlusions are symptoms of systemic vascular health; refer to Primary Care or Stroke Centers for carotid and lipid evaluation.