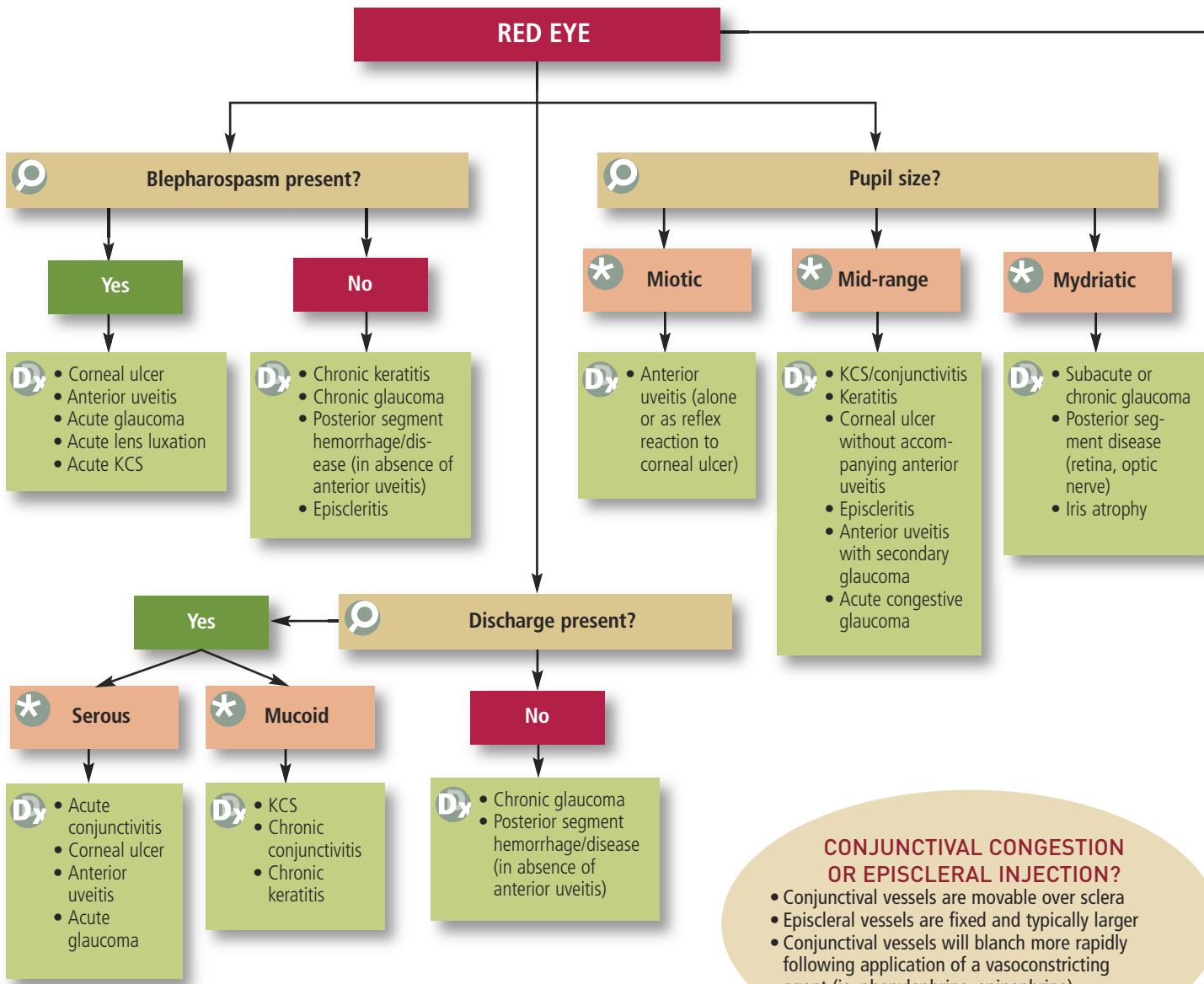


Red Eye

Caryn E. Plummer, DVM, Diplomate ACVO, University of Florida



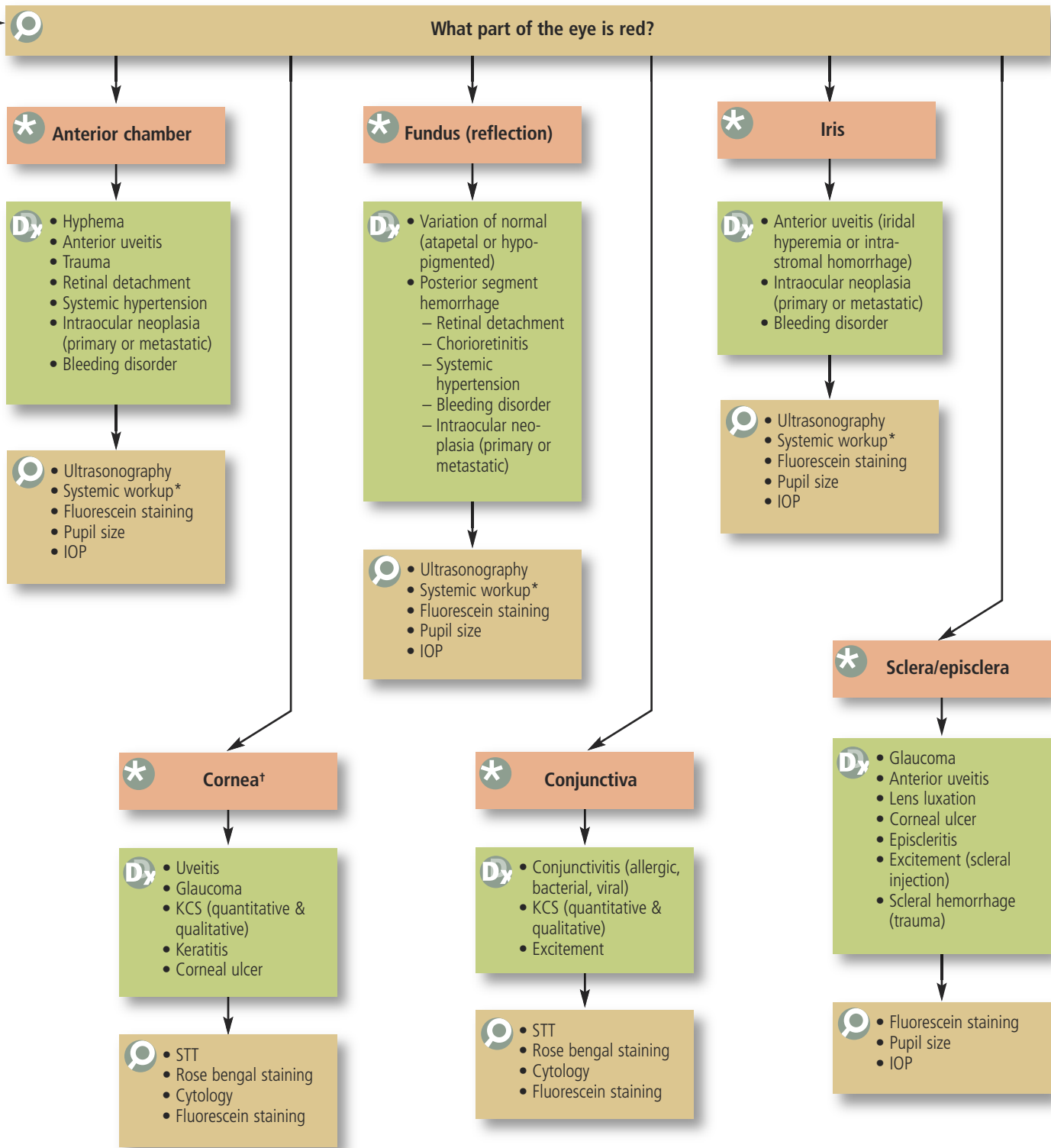
CONJUNCTIVAL CONGESTION OR EPISCLERAL INJECTION?

- Conjunctival vessels are movable over sclera
- Episcleral vessels are fixed and typically larger
- Conjunctival vessels will blanch more rapidly following application of a vasoconstricting agent (ie, phenylephrine, epinephrine)

CHECKLIST: EXAMINING THE RED EYE

- Observe eye to determine what part(s) are affected, what appears normal/abnormal, whether eye is painful, and presence of discharge.
- Develop list of diagnostic differentials based on ocular changes and conduct diagnostic testing.
- Determine whether eye is visual.
- Assess pupil size and light reflexes.
- Perform STT for quantitative assessment of tear production.
- Perform ocular surface staining:
 - a) Fluorescein staining to assess corneal epithelium defects, NLD patency, and tear film breakup time and stability
 - b) Seidel's test to identify leakage of aqueous humor through cornea
 - c) Rose bengal staining to measure precorneal tear film quality and integrity
- Perform tonometry to estimate IOP: elevation consistent with glaucoma, decrease consistent with intraocular inflammation.
- Complete examination and systemic diagnostic testing as indicated.

IOP = intraocular pressure, KCS = keratoconjunctivitis sicca, NLD = nasolacrimal duct, STT = Schirmer's tear test



* Systemic workup = minimum database, systemic blood pressure, coagulation parameters, infectious disease titers, thoracic/abdominal imaging
 † The cornea itself is rarely red unless vascularization is present; blood may also be present within the stroma or behind the cornea, within the anterior chamber, giving the impression of a red cornea

	Investigation		Treatment
	Diagnostic Differentials		Result