TRIAGING THE PATIENT WITH BLURRY VISION

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Disclosure

I have no actual or potential conflict of interest in relation to this presentation.

Upon completion of this activity, participants will be able to:

- Define different eye complaints in diabetics
- Identify non-Emergencies from Ocular emergencies

Triaging urgency levels

Immediate: within one to two hours

Urgent: within 24 hours

Semi-urgent: within a week

Routine: within three to six months

Prompt recognition

Prompt recognition of ocular emergencies are essential in the primary care setting to prevent a patient from going blind.

Careful eye examination can help make decisions about appropriate treatment and referral.

4 Eye Vital Signs

The four Eye Vital signs to assess in an ocular triage are:

1 – Visual acuity (each eye)

2 - Confrontation Visual Fields

3 - Ocular movements

4 - Pupil evaluation

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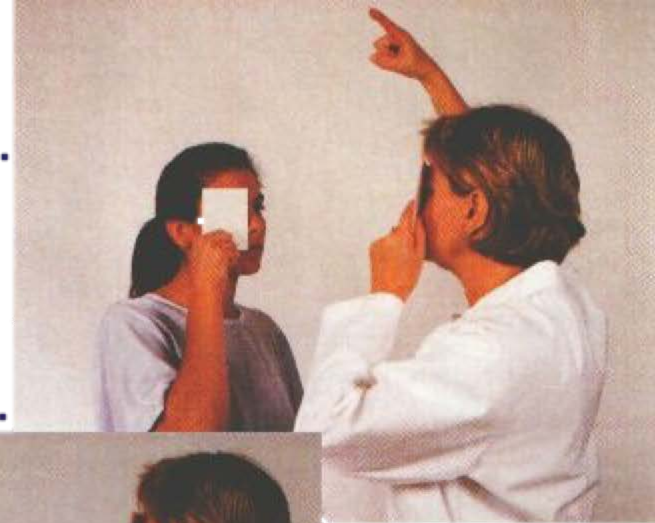
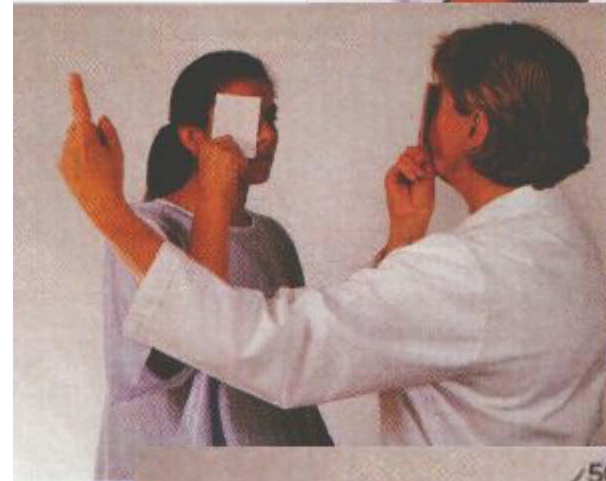
Letters	Line	Acuity
E	1	20/200
F P	2	20/100
T O Z	3	20/70
L P E D	4	20/50
P E C F D	5	20/40
E D F C Z P	6	20/30
F E L O P Z D	7	20/25
D E F P O T E C	8	20/20
L E F O D P C T	9	
F D P L T C E O	10	
P E Z O L C F T D	11	

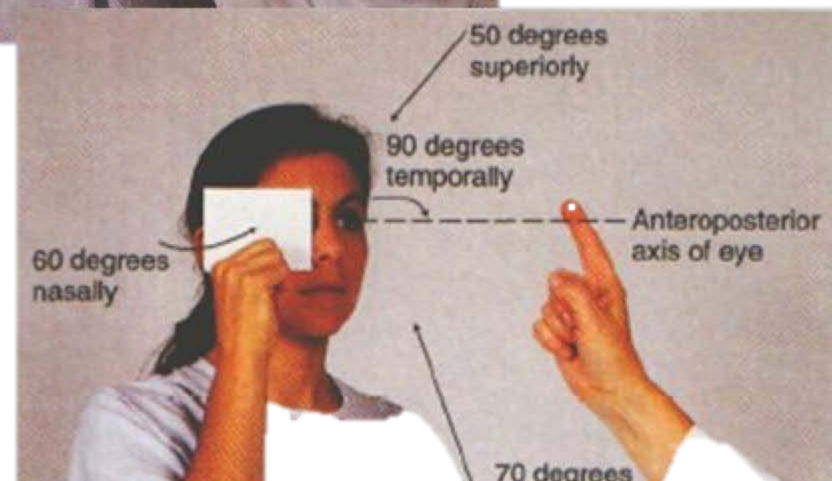
SUBSCRIBE

Visual fields by confrontation

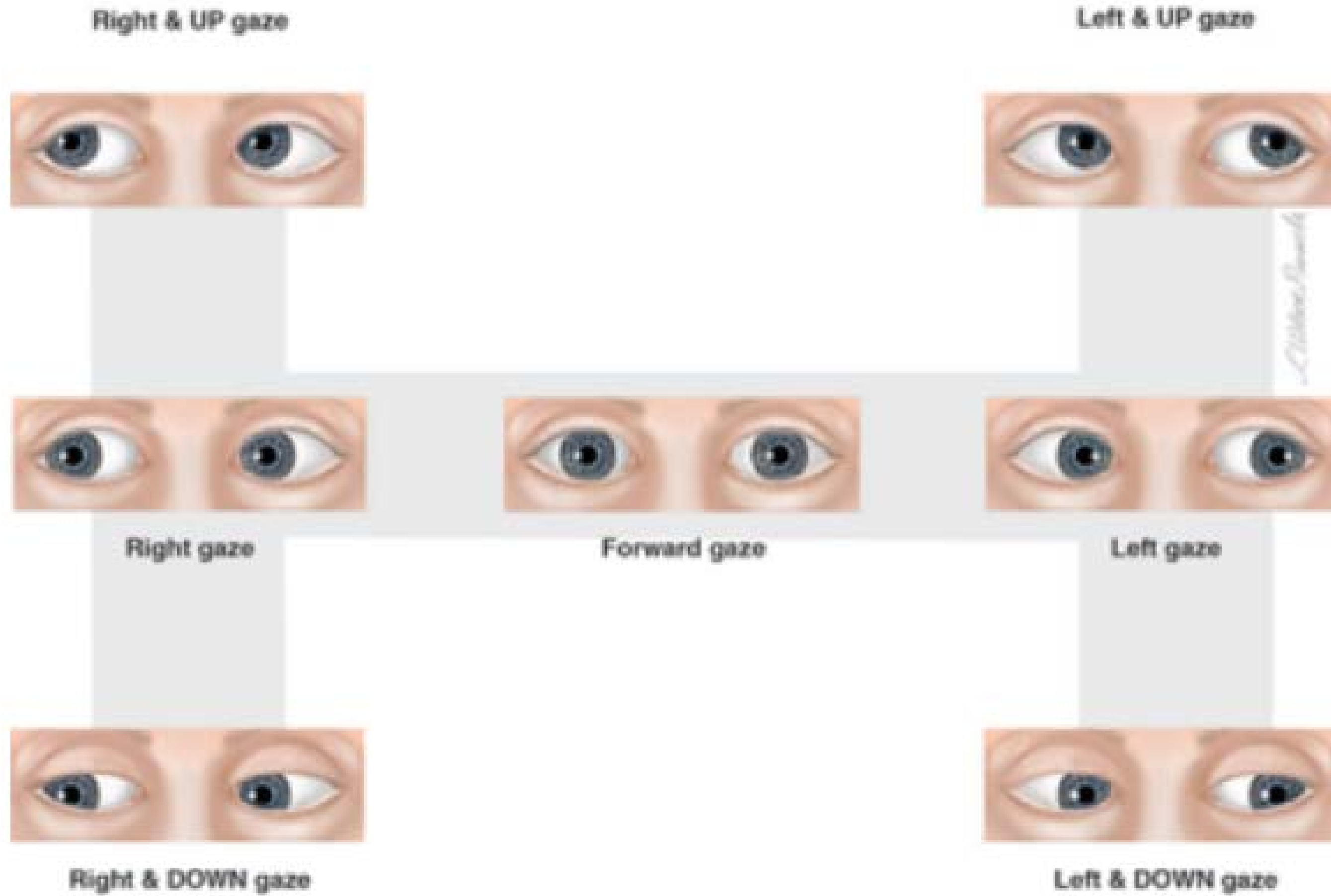
- Cover 1 eye of patient and same side eye of examiner; sit 2 feet away, maintain eye contact
- Advance finger from periphery, ask patient to say “now” when finger is first visible
- Inability to see finger at same time as examiner suggests visual field loss



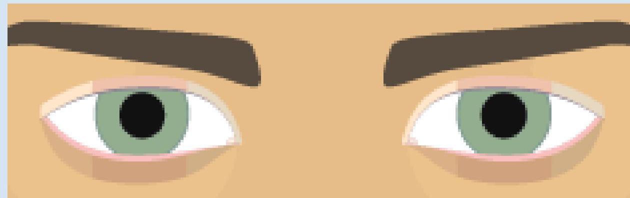




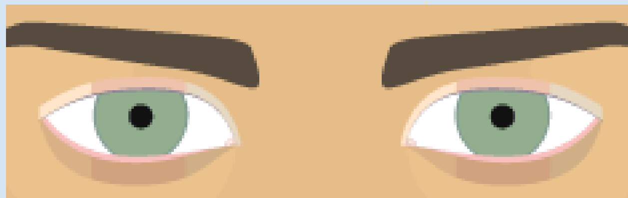
Ocular movements



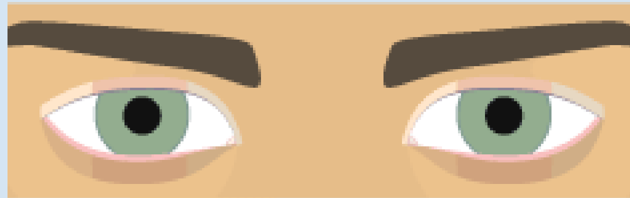
Pupillary reflexes



The patient focuses on a distant target in a darkened room — pupils are dilated.



A bright torch is shone into the left (normal) eye, evoking direct and consensual pupil constriction.



The torch is swung to the right (affected) eye, evoking temporary paradoxical dilation of the pupils; this indicates a defect in the afferent limb of the right eye pupillary reflex. The torch may need to be swung back and forth several times. ◆

Decreased or Distorted Vision

Most common eye complaint

Most difficult triage category

Determine if emergency

What to ask?

Do you wear glasses? Vision still decreased with glasses on?

One eye or both?

Sudden or gradual loss?

Did vision go away and then return?

Is there a portion of the vision gone (curtain, blind spot, etc)?

Headache? Eye pain?

Past eye surgeries?

Known eye disease? Treatment for diabetic eye disease?

Laser/injection? When was last injection?

Decreased/distorted Vision

Acute

See same day
(Urgent eye care clinic or ER)

Gradual
(weeks/months)

Next available appointment

Sudden vs Gradual

Sudden visual loss causes in diabetics:

- Vitreous hemorrhage
- Retinal vein occlusion
- Retinal artery occlusion
- Hyperglycemia -> acute lens changes (reversible)
- Endophthalmitis (intra-ocular injection)

Gradual vision loss:

- Cataracts
- Change in refractive state
- Diabetic maculopathy
- Glaucoma

Vitreous hemorrhage

Long-standing / poorly controlled DM

Sudden visual loss or haze

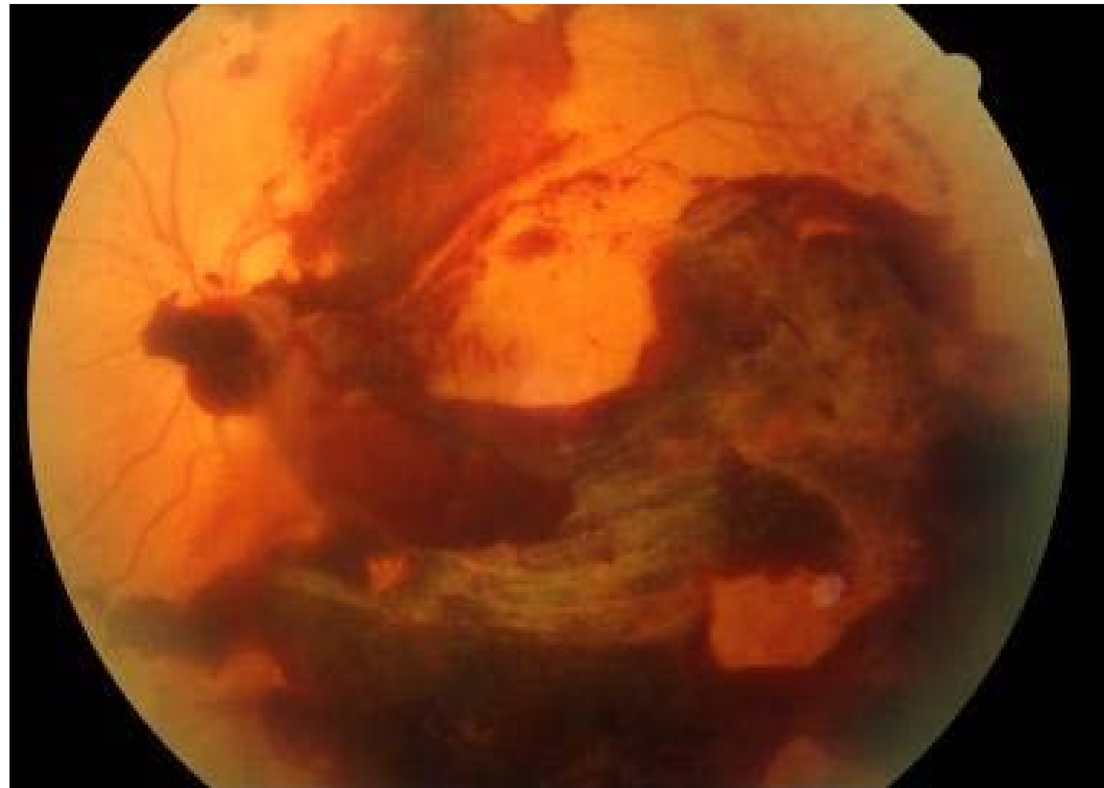
Painless

Floaters / Cobwebs

Red hue to vision

Worse in morning

Previous episodes



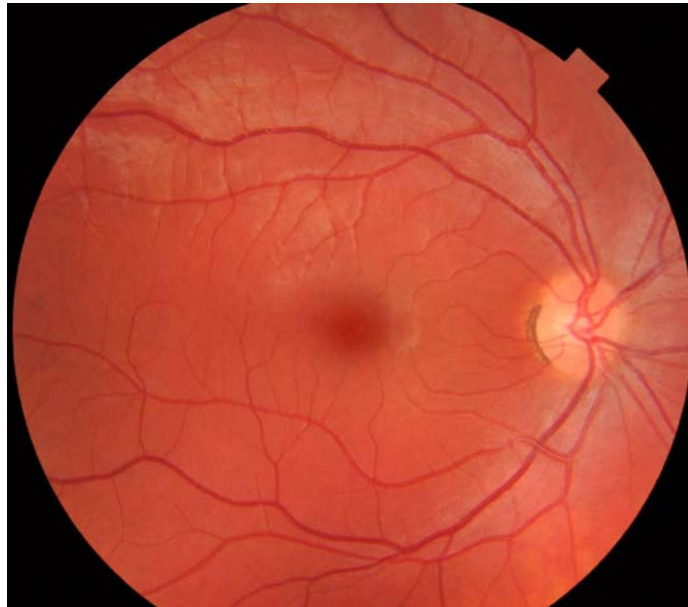
Retinal vein occlusion

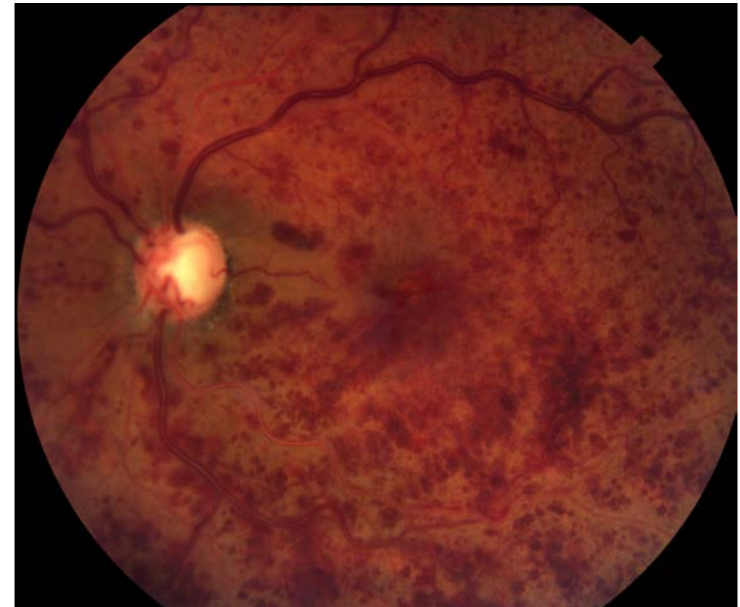
Sudden/rapid visual loss

Painless

Unilateral

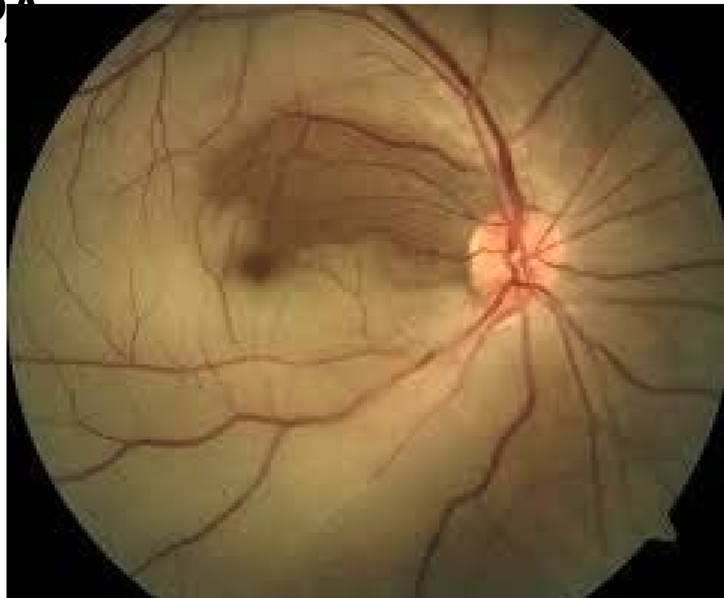
Progressive worsening





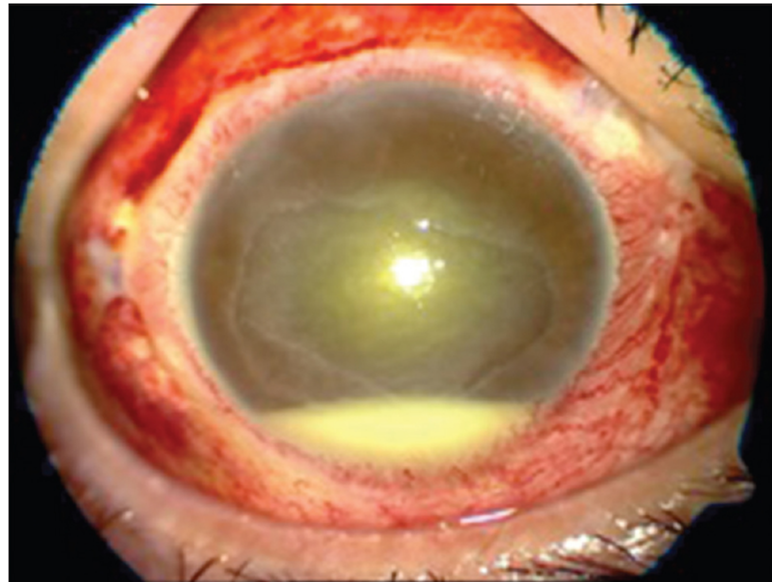
Retinal artery occlusion

- Sudden vision loss (seconds/minutes)
- Very severe, poor prognosis
- Emergency -> if suspected refer to ER
- Ophthalmologist may refer for Stroke protocol/tPA



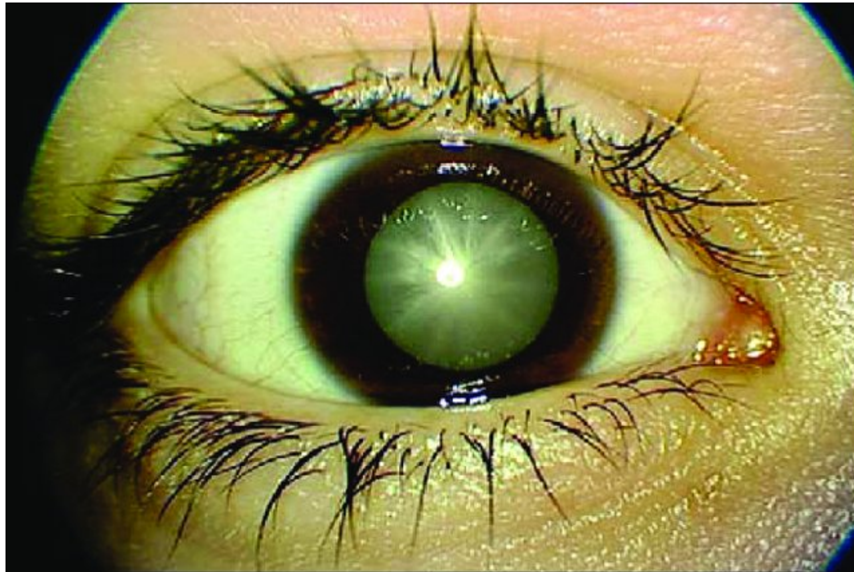
Endophthalmitis

- Rapid loss of vision
- Pain and light sensitivity
- Red eye +/- discharge
- History of recent eye surgery or injection
- Urgent referral



Acute lens changes

- Acute myopic shift (reversible)
- Acute diabetic cataract (rare)
- Associated with uncontrolled DM
- Sudden decrease in vision
- Bilateral



Cataract (non-acute)

- Progressive, common
- Bilateral
- Glare, especially at night
- Halos
- Non-urgent referral -> surgery

Diabetic maculopathy

Recent or long-standing DM

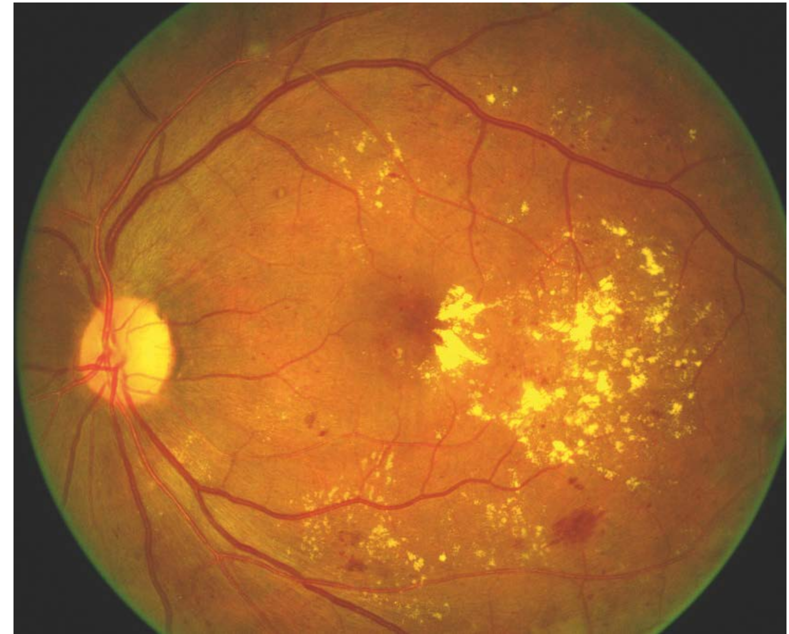
Relatively poor control

Progressive visual loss, uni or bilateral

Eval retina specialist 2-4 weeks

Can reverse with control

Anti-VEGF or laser



Glaucoma

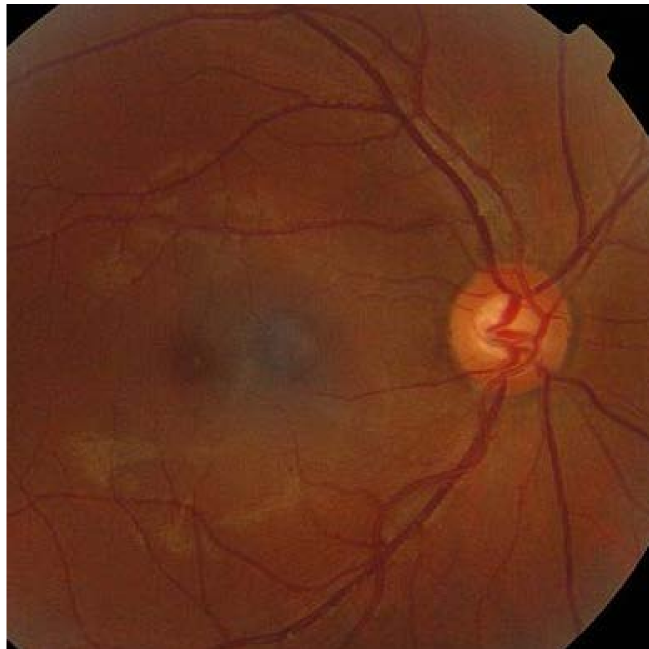
DM is risk factor

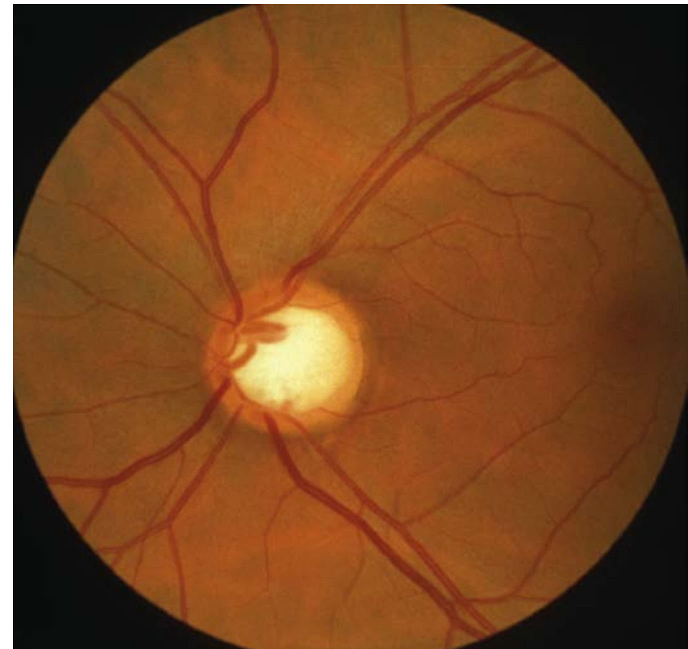
May have family history

Progressive loss of VF, then VA

Asymptomatic until late

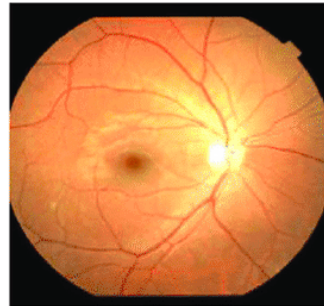
High IOP

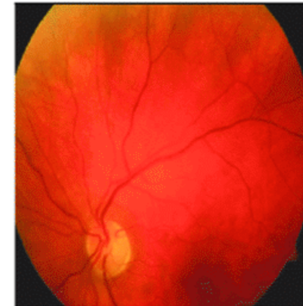


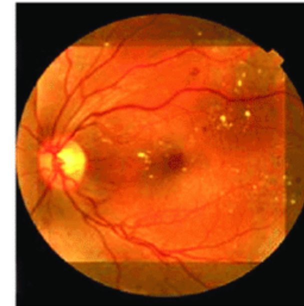


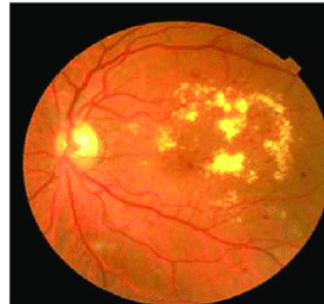
Diabetic retinopathy

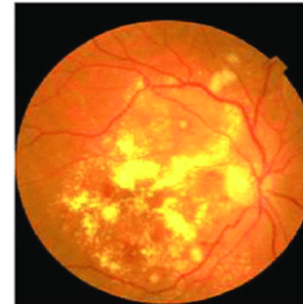
- Risk factors: duration of DM, glyc control, BP, dyslipidemia, tobacco
- Late stages – bleeding and retinal traction -> ↓VA
- Treat: laser, anti-VEGF, surgery
- Screening with fundus photo or dilated eye exam 1/year

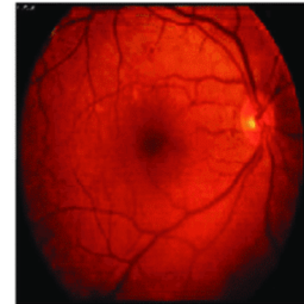

Without DR

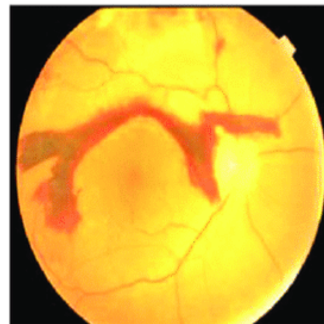

Early diabetic retinopathy

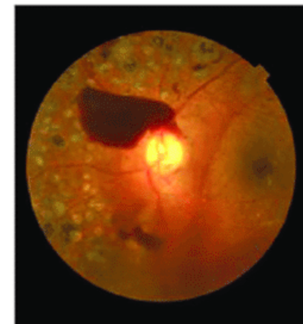

Mild NPDR

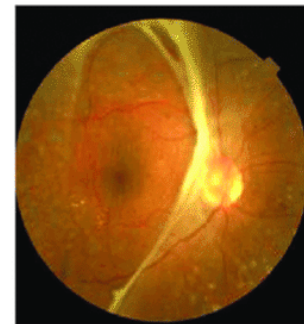

Moderate NPDR


Severe NPDR


PDR and neovascularization


PDR with vitreous hemorrhage


PDR with vitreous hemorrhage and PLM


Vitreoretinal traction bands

Appalachia Eye network

- Fundus picture has comparable sensitivity and specificity for detecting DR than dilated fundus exam
- UK operated, affordable for underserved populations – fundus cameras in 44 PCCs across Kentucky
- Over 5000 screens/year

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Floaters

- Whether a patient has one floater or many -> see same day (urgent)
- Triage questions:

  How long have you noticed the floaters?

  Have they increased in number?

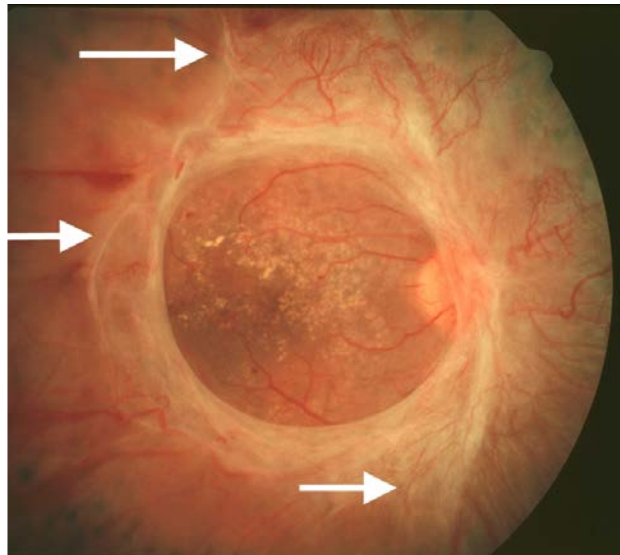
  One eye or both?

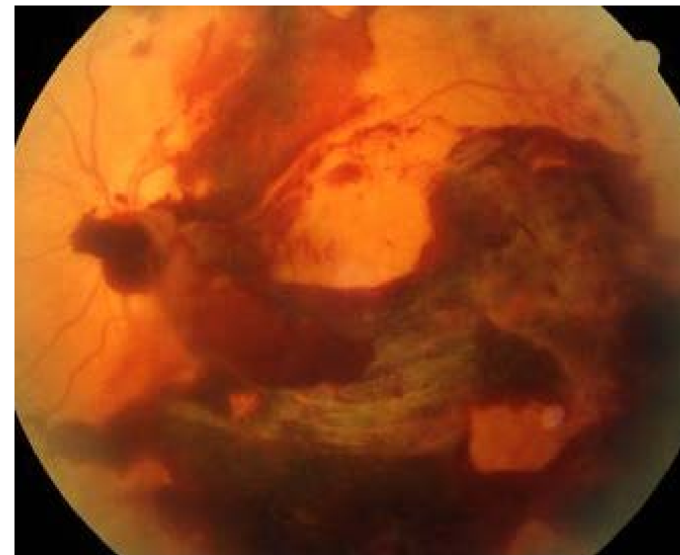
  Notice them with eyes open, closed or both?

  Recent trauma to eye/head?

Floaters: most common causes

- Posterior vitreous detachment
- Retina hole/tear
- Vitreous hemorrhage (from proliferative DR)
- Retinal detachment (rhegmatogenous or tractional)





Flashes

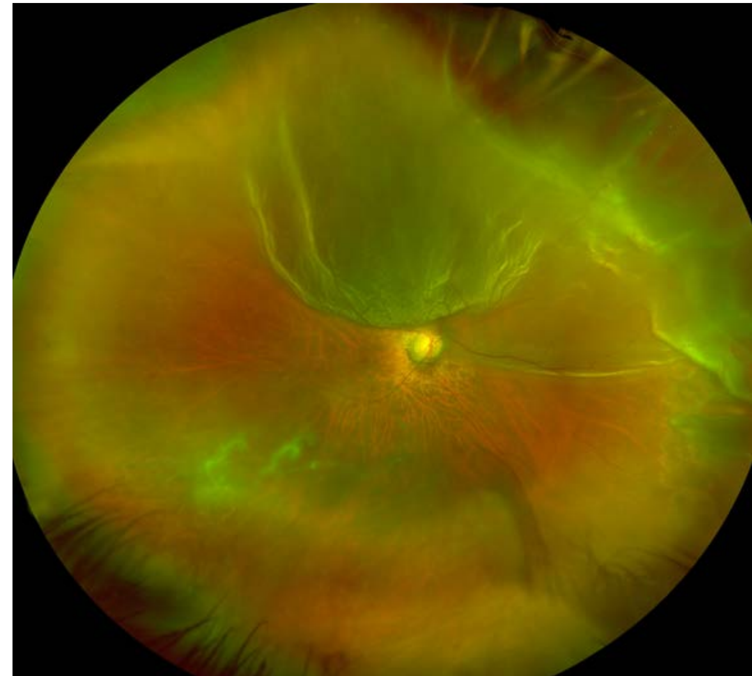
Lights or streaks
See same day (urgent)

Triage questions:

- How long have you noticed the flashes?
- Have they increased in number?
- One eye or both?
- When do you see the flashing lights?
- Notice them with eyes open, closed or both?
- Previous eye surgery/cataract/IOL?
- Any head or eye trauma in the past few days?

Flashes: most common causes

- Posterior vitreous detachment
- Retina hole/tear
- Retinal detachment (rhegmatogenous or tractional)
- Migraine



If only we had our regular eye exams.