

Putting the “Eye” in Teams: fostering a team-based approach to prevent vision loss among patients with Diabetes

July 25, 2023



Overview

- Patient story
- Small group work
- Overview of the problem and opportunity
- Access to eye care
- Addressing realities and coping with vision loss
- Wrap up and adjourn

Learning Objectives

- Raise awareness around eye health and vision loss and the opportunities for prevention
- Identify key terms to help understanding and strengthen communication between primary care and eye care teams

Debi Sarma, OD



- Public Health Optometrist and Community Outreach Specialist, Boston, MA
- Director, Codman Square Health Center
- Love to help high need communities access eye care support

No relevant financial relationships to disclose

Julie Grutzmacher, MSW, MPH



- Previous experience: community-based grassroots advocacy, HIV, NICU, High risk pregnancy Care Coordination at FQHC, Academia- primary care leadership track
- Director, ASPECT program
- Director, Center for Vision and Population Health Initiatives at Prevent Blindness

No relevant financial relationships to disclose

Why we are here

Knowledge share is critical in preventing blindness of patients with diabetes

Focus groups with PCPs showed us an expressed need for more eye care education, especially in diabetes care

We are motivated to help providers who help the most vulnerable populations with diabetes eye care education.



Serena's story



Small group discussion

Reflect on Serena's story.

What does this video conjure for you?

Have you had any patients with diabetic eye disease?

How do you think a patient would feel to lose their vision?

Diabetes related eye disease

In the United States:

- 37 million people
- 1 in 3 will develop diabetic eye disease
- Diabetic retinopathy is the leading cause of blindness in working-age adults.
- 300,000 cases per year of diabetes are initially diagnosed through their eye appointment

What are symptoms of diabetes-related retinopathy?



Sudden increase in eye floaters (*spots and/or dark cobweb-like strands*)



Blurred vision



Sudden loss of vision in one eye



Halos around lights



Flashing lights



Poor night and color vision

What puts a person with diabetes at higher or lower risk for diabetes-related retinopathy?



Duration of the Disease



Blood Glucose Management



Race



Smoking



Blood Pressure



Cholesterol Levels



Pregnancy

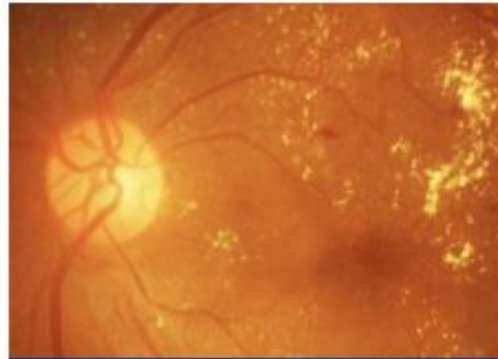


Kidney Disease

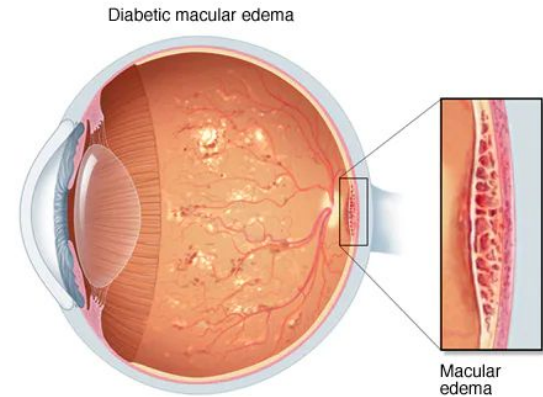
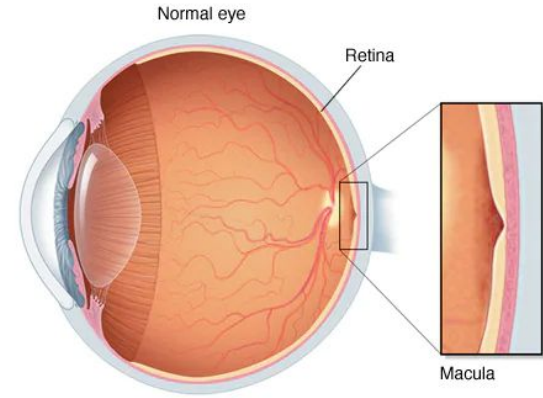
Pathophysiology of Disease



Normal



Diseased



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Diabetic eye disease affects a person's whole health

People with vision loss caused by diabetes experience trouble with:

- Being physically active
- Reading nutrition labels
- Preparing insulin injections
- Checking blood sugar

Patient Case

45 year old agricultural worker was admitted to the ER with blurred vision dizziness, frequent urination, increased thirst.

No exposure to new toxin, working at the same farm for 8 years with no changes at the worksite

Weight 192 lbs, recent weight changes - down 8 lbs

Blood pressure 145/92 mm Hg

Blood sugar > 400 mg/dl

Potassium 3.5 mEq/L, Sodium 135 mEq/L

Vision right eye 20/60 left eye 20/60

Diagnosis - Diabetes Type 2

Treatment - Hydration, subQ insulin Admitted for observation. Started on long acting Lantus weight based, T1D Lispro weight based

Refer to PCP



Patient Case- continued

At PCP appointment 2 weeks later, the vision has improved in the right eye, but has not completely improved in the left. Vision 20/20 right and 20/50 left eye.



How do you address this vision issue?

1. Refer to the Ophthalmologist five hours away with a 4 month wait
2. Refer To the optometrist at the local Walmart vision center 20 minutes away
3. Hope that the medication will work at the 1 month follow up and that the vision issue will resolve



**Tell us about your experience obtaining
eye care for your patients with Diabetes**



**Eye Care
Providers need
your support to
identify and
manage diabetic
eye disease**

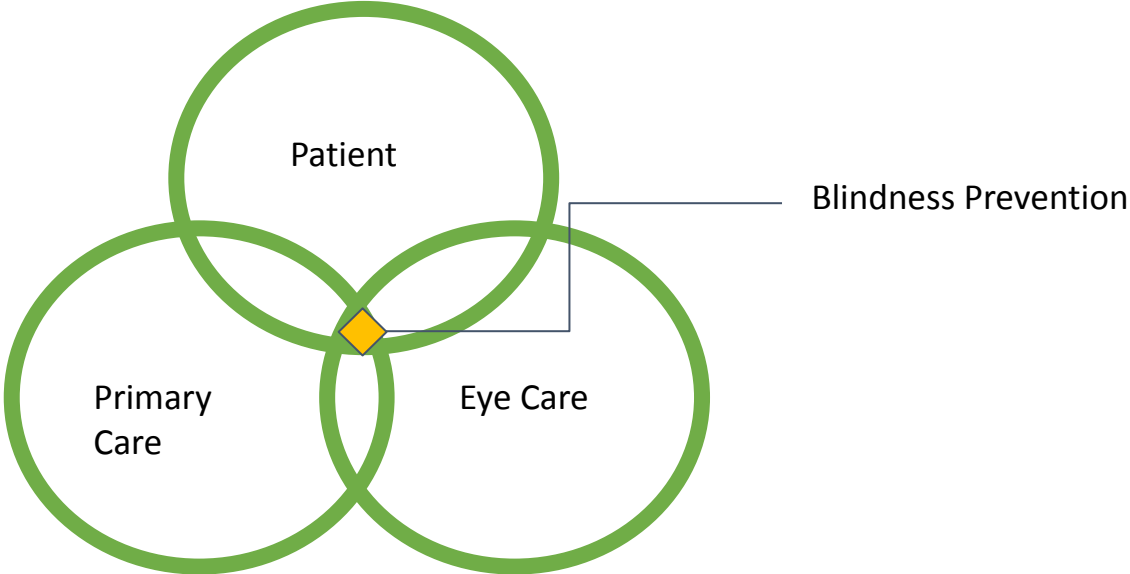
Your Eye Care Provider Scope of Practice

	Ophthalmologist	Optometrist
Education	4 year Doctorate Degree (MD) 1 year Internship 3 years Residency	4 year Doctorate Degree (OD) 1 year Residency (optional)
Diabetes Annual Evaluations	X	X
Early Nonproliferative Diabetic Eye disease	X	X
Advanced proliferative diabetes care and macular edema management including injective therapy	X	
Rx Glasses and Contacts	?	X
Administer low vision devices for patients with vision loss and blindness	?	?

Communication with Eye Care

In order to effectively help the patient reduce their risks of blindness, it is important to know more about the patient experience when they go for an eye visit.

Strong relationships are critical for blindness prevention in diabetes



Measuring Vision

Legal Blindness Status

Low Vision Status

Visual Acuity in a Healthy Eye

E	1	20/200
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F P

2 20/100

T O Z	3	20/70
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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
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L E F O D P C T

9

F D P L T C E O

10

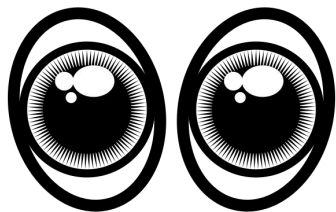
P E Z O L C F T D

11

External Assessments

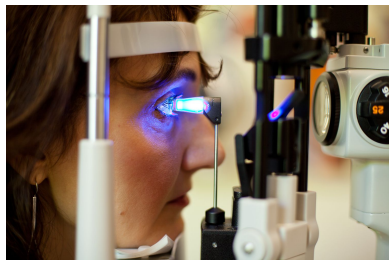
OD
Right eye

OS
Left eye



Pupil and Extraocular motilities

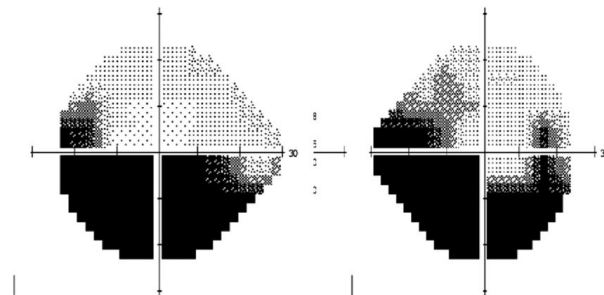
Eye Care Testing



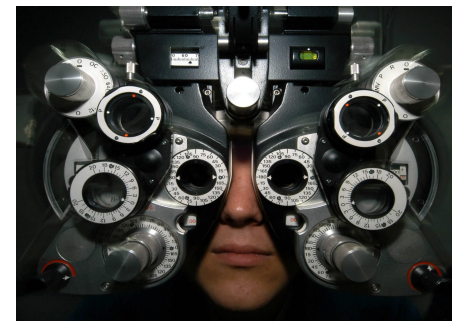
Intraocular pressure
(IOP)



Optical Coherence Tomography (OCT)

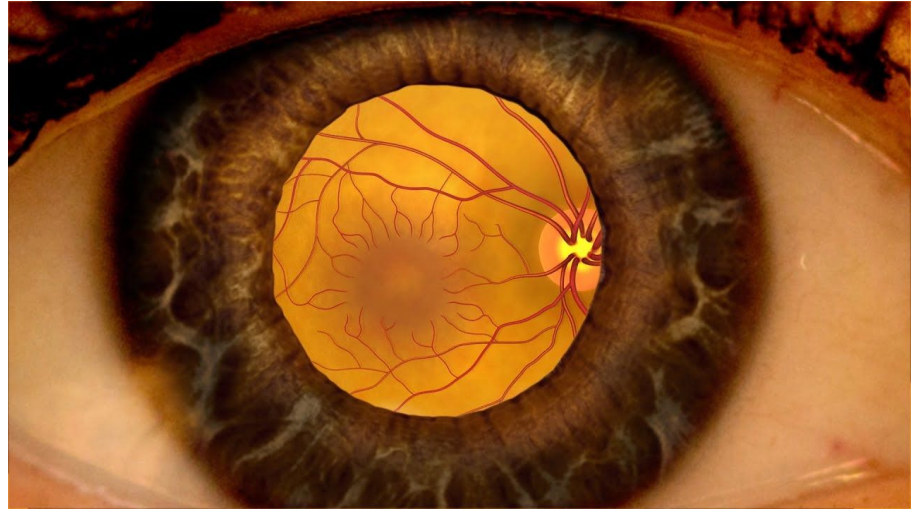


Visual Field Test



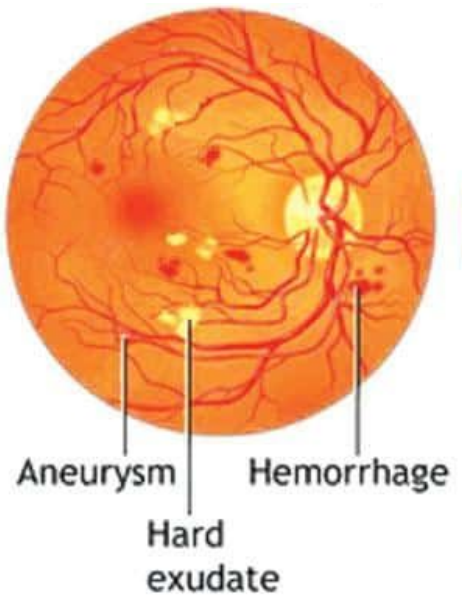
Refraction - Subjective Vision
Testing

Pupil Dilation

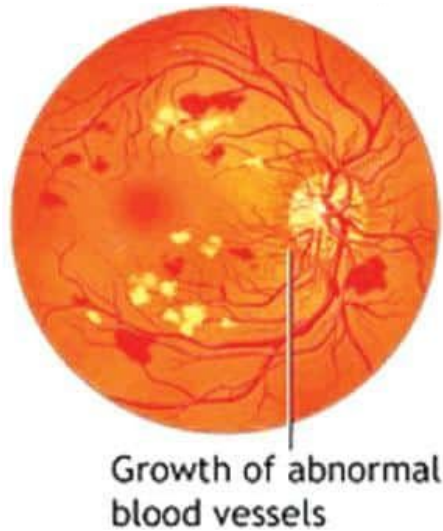


Diabetic Fundus Evaluation

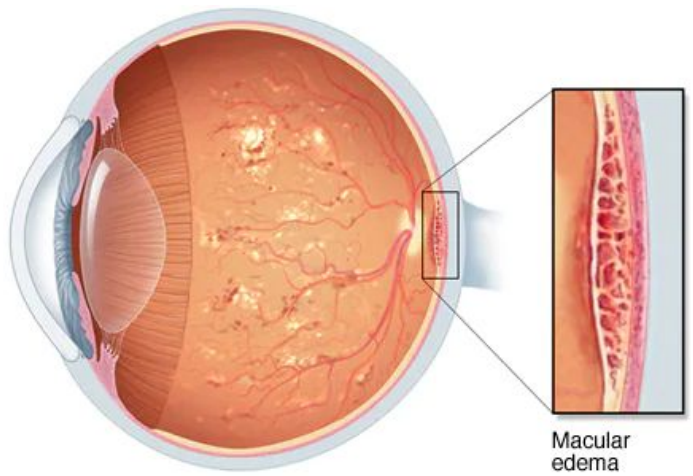
Non proliferative diabetic retinopathy



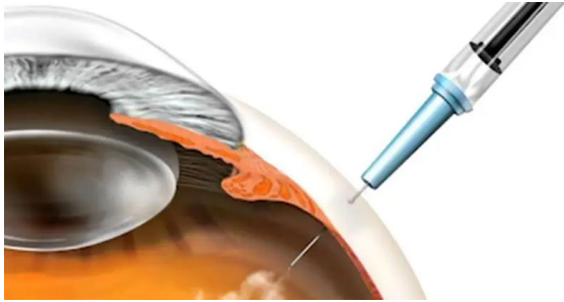
Proliferative diabetic retinopathy



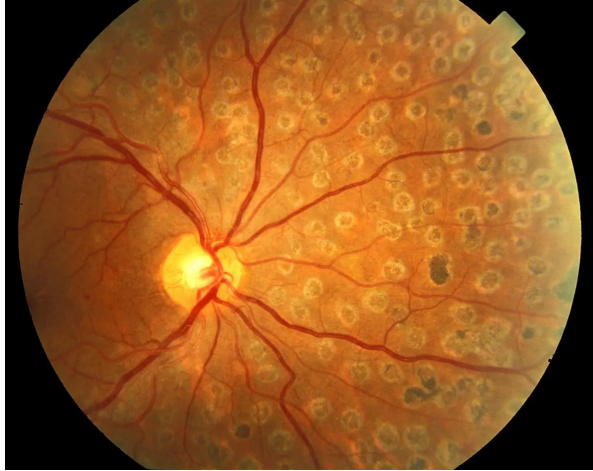
Macular Edema



Treatments



Anti-VEGF injections



Laser treatment



Low Vision Rehabilitation

Be a connector between your patient and eye care

Engage the Patient

- a. Ask about vision and eye health
- b. Ensure they know to get annual diabetic eye dilations
- c. Connect them to local eye care providers
- d. Ask about results of eye testing

Engage with Eye Care

- a. Engage with local eye care providers
- b. Develop strong pathways to refer for both urgent and non urgent cases
- c. Prepare patients to share A1c, blood pressure, current systemic diagnoses and medications, and any relevant labs including last blood work
- d. Request results

Educate patients on how to lower their risk of blindness with diabetes

Know Your ABCs of Diabetes to Protect Your Eye Health

A

A1C:

Manage your blood glucose. Have your A1C checked every 6 months.

B

Blood Pressure:

Manage your blood pressure to protect your heart, kidney, and eye health.

C

Cholesterol:

Manage your cholesterol levels.

D

Don't Smoke:

Don't start smoking and if you smoke, quit.

E

Eyes:

Get a comprehensive dilated eye exam annually.

Provide eye resources to your patients

Diabetes + Your Eyes Educational Toolkit

Factsheets (including one on *Diabetes-Related Eye Disease and Mental Health*), scripted PowerPoint, videos (including one on *Diabetes, Vision Loss, and Mental Wellness*), infographics

<https://preventblindness.org/diabetes-and-the-eyes-educational-toolkit/>

Diabetes + Your Eyes

<https://preventblindness.org/diabetes>

Living Well With Low Vision

Resources for those with vision loss

<https://lowvision.preventblindness.org/>

Consider ASPECT for patients who are motivated to advocate for diabetic patients with vision loss

ASPECT Patient Engagement Program

The program aims to equip participants with knowledge, skills, and confidence to become advocates for vision and eye health.

<https://cvph.preventblindness.org/aspect-program/>

Thank you!

Debi Sarma, OD, Director of Eye Care, Codman Health Center

debi.sarma@codman.org

Julie Grutzmacher, MSW, MPH, Director of Patient Advocacy + Population Health Initiatives, Prevent Blindness- jgrutzmacher@preventblindness.org

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