



# Sharpening Your Vision: DSMES Services as a Connector to Better Eye Health

Division of Diabetes Translation

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# Moderator



**Betsy Rodriguez**

BSN, MSN, DCES, FADCES

Senior Public Health Advisor  
Division of Diabetes Translation  
Centers for Disease Control and  
Prevention

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# Equitable Delivery of DSMES Services

- To address equity in the delivery of diabetes self-management education and support (DSMES) services, interventions can be more effective if they consider the unique needs of various populations.
- For example, people with diabetes who are
  - racially or ethnically diverse
  - of sexual and/or gender minority
  - have limited English proficiency or literacy
  - deaf or hard of hearing
  - blind or have low vision
  - neurodiverse
  - live with learning disabilities or intellectual or developmental disabilities or other cognitive impairment



# Today's Objectives

- Understand how diabetes can affect the vision and eye health of people with diabetes.
- Explain the benefits of regular eye health screenings and education for people with diabetes as part of diabetes care and self-management, including through the provision of DSMES services, and in community or team based clinical settings.

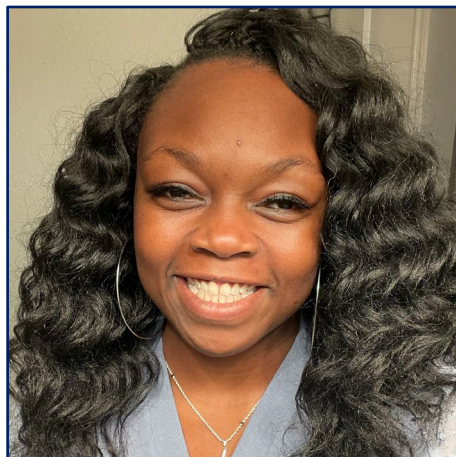
# Today's Objectives (continued)

- Recognize the patient perspective of how providers can assist a person living with diabetes and vision loss.
- Utilize strategies and resources for delivering DSMES services to people with low vision/limited vision/no vision.

# Today's Presenters



Nita Sinha, OD, MPH  
Director  
Public Health  
Prevent Blindness



Serena Valentine, MBA, CHW  
Executive Director  
CORE Initiative



Lisa Golden, MA.Ed.HD,  
CRC, CDCES  
Diabetes Program Specialist  
Texas Workforce  
Commission

# Current Landscape of Vision Health for People with Diabetes



**Nita Sinha**

OD, MPH

Director, Public Health  
Prevent Blindness



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and enter the  
code [1971 7349]  
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poll question.

## Different words, same meaning

Diabetes-related eye disease = Diabetic eye disease

Diabetes-related retinopathy = Diabetic retinopathy

Diabetes-related macular edema =  
Diabetic macular edema

## Diabetes + eye disease

What is diabetes-related eye disease?

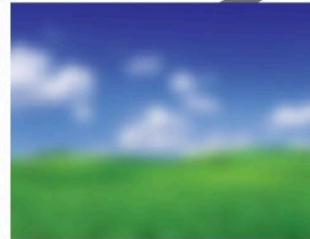
What are other common eye diseases?



Diabetes-related  
retinopathy



Diabetes-related  
macular edema



Cataract



Glaucoma

# Diabetes and Blindness in the United States

- Diabetic retinopathy is the leading cause of blindness in working-age adults.
- Glaucoma, cataracts, and other eye disorders occur earlier and more often in people with diabetes.
- Intensive management of blood glucose levels can reduce the risk of diabetic retinopathy by 27%.

# What is Vision Loss and Blindness?

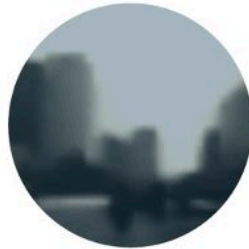
- Vision loss or impairment
  - Also known as low vision
  - Loss of eyesight that cannot be corrected with glasses, medicine, or surgery
  - Visual acuity of 20/70 or worse in the better-seeing eye
- Blindness
  - Subset of vision loss or impairment group in which the vision with any correction is 20/200 or worse in the better-seeing eye



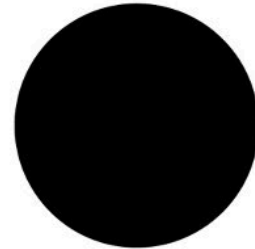
# What are symptoms of diabetes-related retinopathy?



**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**

# Risks for Diabetes-Related Retinopathy

- During of the disease
- Blood glucose management
- Racial and ethnic groups\*
- Smoking
- Blood pressure
- Cholesterol levels
- Pregnancy
- Kidney disease

\*Learn more: [Racial disparities in the screening and treatment of diabetic retinopathy](#) (*Journal of the National Medical Association*, April 2022)

# How to keep eyes healthy when living 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.

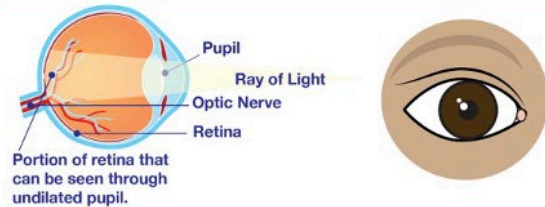
# How is diabetes-related retinopathy diagnosed?

Sometimes one of the first signs of diabetes.

## Dilated Eye Exam Annually

- Dilated eye exam with an eye doctor – *preferred*
- Photos of retina in each eye

### UNDILATED PUPIL



### DILATED PUPIL



## Who Are Eye Doctors?



- Optometrists
- Ophthalmologists

# How Can You Help?



## Ask questions about eye health:

- Do you get a comprehensive eye exam with dilated pupils at least once a year?
- Do you know how diabetes can affect your eyes?
- Have you noticed any changes to your vision?
- Do you know what to do if you suddenly have a change in your vision?

# Make a Connection to Eye Health Care

- Refer your participants to an eye care professional.
- Share resources about recommended eye care for people with diabetes.
- Follow up to help track how well they are managing their diabetes and connecting with their health care team.



## Diabetes

Diabetes Home

### Take Charge of Your Diabetes: Healthy Eyes

Did you know that diabetes can harm your eyes? The good news is that you can take steps to help keep your eyes healthy. You've already taken an important step by finding this guide!

#### Tips To Keep Your Eyes Healthy

Get a dilated eye exam at least once a year and share the results with your primary care doctor.

- In this exam, you will get eye drops to make your pupils larger. Pupils are the black circles in the middle of your eyes. The drops are painless and help your eye doctor see inside your eyes to look for signs of health problems.
- A dilated eye exam can help your eye doctor find and treat problems to keep you from losing your vision from diabetes.
- Your eye doctor may take pictures of your eyes with a tool called retinal photography. This tool helps the doctor see your retina, which is at the back part of your eyes.
- Be sure to make and keep your next eye doctor appointment!



Visit your eye doctor right away if you:

- See little black lines or spots that don't go away.
- See any red spots or a red fog.
- Have a sudden change in how clearly you see.
- Take longer than usual to adjust to darkness.

Talk with all of your health care providers about ways to manage your diabetes.

- Ask your health care team to help you set and reach goals to manage your blood sugar, blood pressure, and cholesterol.
- Get regular A1C tests to measure your blood sugar over time because poor blood sugar can make eye problems happen faster.
- Ask about safe ways to be more active each day and foods that are healthy to eat.

# Diabetes-Related Eye Disease and Mental Health

- Diabetes-related eye disease can cause loss of vision.
- For some, loss of vision can lead to feelings of depression, anxiety, and loss of independence.
- Share these steps to support mental health with people who are living with diabetes-related eye disease:
  - Talk to your primary care doctor, mental health professional, or eye doctor
  - Seek support and connect with others and things that bring you joy
  - Exercise
  - Seek vision rehabilitation services

# Resources



<https://www.youtube.com/watch?v=nxXvk7vlZ9Q>



<https://www.youtube.com/watch?v=RsvhzAA9IbA>

## 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>



# Resources (continued)

## Living Well With Low Vision

Resources for those with vision loss

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

## 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/>

**Prevent Blindness** <https://preventblindness.org/>



# Supporting Patients with Vision Loss: A First-Person Perspective



**Serena Valentine**

MBA, CHW

Executive Director

CORE Initiative

# Delivering DSMES Services to People with Low Vision, Limited Vision, or No Vision



**Lisa Golden**

MA.Ed.HD, CRC, CDCES

Diabetes Program Specialist

Texas Workforce Commission



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# Talk about Vision Loss



- Managing your diabetes can delay or prevent further vision loss (and other complications of diabetes).
- Cataracts are common and can block the eye doctor from seeing other damage like macular edema or blood vessel growth.

# Talk about Vision Loss (continued)

- Don't be afraid to discuss your eye status.
- If you have low vision or are blind, you need to know what to expect and how to proceed with everyday tasks.
- Think about how to describe your vision loss and abilities.
- If your eye doctor says that you “passed” your comprehensive eye exam, it is NOT a waste of your time or money.



# Participant-Centered Approach

## STEP 1 >

Teach the person living with vision loss, not the others who came to the training or appointment.

## STEP 2 >

Allow the person with a vision loss to handle any equipment, teaching tools, or handouts.

## STEP 3 >

Allow the person with the disability to make the decisions for their diabetes and health. **THINK ABILITY!**

# Considerations for Providing DSMES Services

- Advanced technologies (insulin pumps, continuous glucose monitors, etc.) are only partially accessible.
  - Workarounds are not accessibility.
- Even though they are not fully accessible, you can still offer technology solutions and talk about all the features.
- Consider new technologies and medications (and access – i.e., prescription assistance or discount programs)





# Considerations for Providing DSMES Services (continued)

- Use their other technologies and tools to assist in self care tasks.
  - CCTVs, Braille displays, smart phones
  - Example visual interpretation and support apps: AIRA, Be My Eyes, TapTapSee, Seeing AI
  - Many online retailers of vision-aids and supports; recommendations can often be made through national organizations.
- Consumer Guides <https://consumerguide.diabetes.org/>
- Diabetes Technology <https://www.diabeteseducator.org/danatech/home>

# Resources for Low Vision

- American Foundation for the Blind <https://www.afb.org/>
- American Council of the Blind <https://www.acb.org/>
- ACB Diabetes in Action (Podcast) <https://www.acbda.org/>
- National Federation of the Blind <https://www.nfb.org/>
  - Diabetes Action Network for the Blind (DAN)
  - [nfb.org/about-us/divisions-committees-and-groups/divisions/diabetes-action-network](https://www.nfb.org/about-us/divisions-committees-and-groups/divisions/diabetes-action-network)
  - Mailing List: [nfbnet.org/mailman/listinfo/diabetes-talk\\_nfbnet.org](https://www.nfbnet.org/mailman/listinfo/diabetes-talk_nfbnet.org)
  - (Diabetic Living, Diabetes Forecast, Diabetes Self Management)
  - <https://www.nfb.org/programs-services/nfb-newsline>
  - Hadley School for the Blind <https://hadley.edu/>
- Talking Books and Reading Disabilities <https://www.loc.gov/nls/about/eligibility-for-nls-services/talking-books-reading-disabilities/>

# Vocational Rehabilitation

- Vocational Rehabilitation (VR) is a federal-state program that helps people who have disabilities get or keep a job or advance in employment.
  - 14 years old or older
  - Physical or mental disability which is a substantial impediment to employment
- List of state vocational rehabilitation agencies  
[https://askjan.org/concerns/State-Vocational-Rehabilitation-Agencies.cfm?csSearch=4524079\\_1](https://askjan.org/concerns/State-Vocational-Rehabilitation-Agencies.cfm?csSearch=4524079_1)

# Vocational Rehabilitation Services

- Job exploration
- Counseling for adjustment to blindness or support
- Career planning
- Social Security Disability Insurance benefits planning
- Work-based learning experiences
- Orientation and mobility support
- Teacher services for visually impaired
- Deafblind services
- Assistive technology selection and training



# Independent Living for Older Individuals Who are Blind (OIB program)

- 55 or older whose severe visual impairment makes competitive employment difficult but for whom independent living goals are feasible
- Services may include adaptive aids, independent living skills training, community resources, large print items, peer support
- Mississippi State Lessons for Living (<https://www.oib-tac.org/technical-assistance/direct-service/lessons-living> )
- Refer to the list of state agencies on previous slide or search for your state and “older blind independent living”



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# Question and Answer

Send questions after the webinar to:  
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# CDC Eye Health Resources

- Vision Health Initiative (VHI)  
<https://www.cdc.gov/visionhealth/index.htm>
- Take Charge of Your Diabetes:  
Healthy Eyes  
<https://www.cdc.gov/diabetes/library/factsheets/diabetes-and-healthy-eyes.html>
- How to Promote Eye Health for People  
With Diabetes:  
5 Actions for Health Care Teams  
<https://www.cdc.gov/diabetes/professional-info/health-care-pro/diabetes-eye-health.html>





# Thank You

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For more information, contact CDC  
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TTY: 1-888-232-6348 [www.cdc.gov](http://www.cdc.gov)

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<https://tceols.cdc.gov/Course/Detail2/9116>.

In order to receive CE for WC4371-062023 - Innovations in Diabetes Behavior Change - Sharpening Your Vision: DSMES Services as a Connector to Better Eye Health - June 20, 2023 (Webcast), please visit TCEO and follow these 9 Simple Steps <https://tceols.cdc.gov/Home/Steps> before July 24, 2023.

The Course Access Code is **Diabetes**.

