



Seeing the Way to Better Health:

Diabetes and Vision Health



Simulation of how a person with diabetes-related retinopathy sees.

Individuals with vision loss from diabetes-related retinopathy and macular edema experience...³

trouble with:

- Exercising
- Reading nutrition labels
- Preparing insulin injections
- Blood glucose testing

reduced quality of life due to:

- Inability to work
- Fewer social interactions
- Loss of independence and mobility
- Loss of leisure activities

For anyone living with diabetes, preventing vision loss should be a priority. One out of every three individuals with diabetes in the United States will develop diabetes-related retinopathy or macular edema, the leading causes of severe vision loss and blindness among working-age adults.¹ However, early detection and treatment can lower the risk of blindness by 90%.²

Since many patients with diabetes-related retinopathy and macular edema have no symptoms, an annual dilated eye exam or digital retinal imaging (photos of the eye taken with a special digital camera that is sent to an eye doctor for review) is recommended. Dilated eye exams are a cost-effective way to detect diabetes-related retinopathy and macular edema at an early and treatable stage. However, approximately 50% of patients are not getting their eyes examined or are diagnosed too late for treatment to be effective.²

There are effective treatments for diabetes-related retinopathy and macular edema that can prevent further loss of vision, including eye injections, laser treatments, and surgery.

It is critical for diabetes prevention and management programs to integrate vision loss prevention and eye health promotion messages and strategies.

PROGRAM SPOTLIGHT:

The Illinois Public Health Institute, in collaboration with the Chicago Department of Public Health, is working with nearly two dozen community partners to launch the Chicago Collaboration to Advance Reach, Equity, and Systems (Chicago CARES) to Prevent Diabetes. Funded through a five-year Centers for Disease Control and Prevention award, Chicago CARES is a multi-sector effort focused on expanding access to the National Diabetes Prevention Program (National DPP) and telehealth-enabled diabetes-related retinopathy screening in Chicago communities with a disproportionate diabetes burden. To learn more about the Chicago CARES project, visit <http://chicagocaresdpp.org/>.

The ABCs of diabetes to protect eye health:



A1C:
Managing
blood glucose



BLOOD PRESSURE:
Managing
blood pressure



CHOLESTEROL:
Managing
cholesterol levels



DON'T SMOKE:
Accessing smoking
cessation programs



EYES:
Receiving an
annual eye exam

Promote a healthy lifestyle with regular physical activity and a balanced diet

» **Diabetes-related retinopathy** occurs when the small blood vessels in the retina (the light-sensitive tissue in the back of the eye) are damaged, causing them to leak and bleed into the retina.

» **Diabetes-related macular edema** occurs when the build-up of fluid in the macula (the center of the retina) causes the macula to swell, leak, and thicken, leading to blurred vision.

Other eye conditions common among people living with diabetes:

» **Cataract** is the clouding of the lens in the eye, causing vision to become blurry and colors to dull.

» **Glaucoma** causes damage to the optic nerve and loss of side vision, usually due to an increase in fluid pressure inside the eye.

INTEGRATING vision and eye health strategies into other programs and activities can improve quality of life for individuals with diabetes.

DIABETES HEALTH CAMPAIGNS:



Integrate messaging about vision and eye health into programs that promote diabetes health to diverse

populations, including populations at high risk and communities of color.

HEALTHY AGING PROGRAMS:



Integrate vision screening and early detection activities, improve access to

and use of eye care services, and incorporate eye health awareness messages into programs that promote healthy vision and active aging.

CAREGIVER SUPPORT PROGRAMS:



Support caregivers by providing them with vision and eye health resources specifically

for individuals with diabetes. These resources should include measures to prevent vision loss by receiving recommended eye care services. They should also include contact information for low vision rehabilitation programs to assist those with uncorrectable vision impairment.

PROFESSIONAL DEVELOPMENT ACTIVITIES:



Include information about the benefits of early detection and treatment for diabetes-

related eye disease in training programs for professionals who promote diabetes health.

RESOURCES:

Building Public Health Capacity to Enhance Vision and Eye Health: A Toolkit for Public Health Agencies and Their Partners

This toolkit can help public health agencies and their partners assess the level of vision impairment in their communities, build effective partnerships, and implement effective and sustainable interventions to improve vision and eye health.

www.cdc.gov/visionhealth/programs/vision-toolkit.html

Diabetes and the Eyes Educational Toolkit

This toolkit (available in English and Spanish) offers educational materials on diabetes and the impact of diabetes on eye health. These educational resources are intended for health care professionals, community health educators, diabetes educators, and anyone in a caregiving or diabetes education role.

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

Diabetic Eye Disease Resources

These resources (available in English and Spanish) share information about steps people living with diabetes can take to lower their risk of vision loss.

www.nei.nih.gov/learn-about-eye-health/resources-for-health-educators/diabetic-eye-disease-resources

Retina International Diabetes-related Eye Disease Toolkit

This toolkit is designed for a multi-stakeholder audience supporting awareness and action on diabetes-related eye diseases.

<http://retina-ded.org/>

Healthy Eyes Presentation Series

This presentation series can build awareness about vision and eye health basics, common adult vision disorders, eye safety precautions, and proactive behaviors for a lifetime of healthy vision.

<https://preventblindness.org/healthy-eyes-presentation-series/>

Living Well With Low Vision

This online resource educates those with loss of vision on how to maintain their independence and quality of life.

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

Vision and Eye Health Surveillance System (VEHSS): A National Data System for Vision and Eye Health

Get the latest state and national data on vision and eye health.

www.cdc.gov/visionhealth/vehss/index.html

Vision Care Financial Assistance Information

This webpage is a list of contact information for organizations and services that provide financial assistance for vision care.

Available in English and Spanish.

<https://preventblindness.org/vision-care-financial-assistance-information/>

For more information, go to: www.preventblindness.org.

September 2020

REFERENCES

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2. Centers for Disease Control and Prevention (2018). CDC Features: Keep an Eye on Your Vision Health. <https://www.cdc.gov/features/healthyvision/index.html>. Accessed July 21, 2020.
3. Coyne KS, Margolis MK, Kennedy-Martin T, Baker TM, Klein R, Paul MD, Revicki DA. The impact of diabetic retinopathy: Perspectives from patient focus groups. *Family Practice*. 2004;21(4): 447-453. <https://doi.org/10.1093/fampra/cmh417>