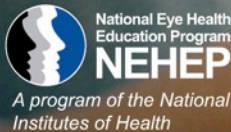


The importance of treatment with good glucose control cannot be underestimated.



New treatments mean better outcomes for preventing diabetes-related vision loss.

## *American Indians and Alaska Natives With Diabetes Can Prevent Vision Loss*

You can't feel it. You can't see it—until it's too late. Diabetic retinopathy, the most common form of diabetic eye disease, is the leading cause of blindness in adults age 20–74. It occurs when diabetes damages blood vessels in the retina.

Diabetic retinopathy affects 7.7 million Americans, and that number is projected to increase to more than 14.6 million people by 2030, including many American Indians and Alaska Natives. According to the Indian Health Service, almost 16 percent of American Indians and Alaska Natives have diabetes. Among them, diabetes varies considerably in various regions, from 6 percent among Alaska Natives to 24 percent among American Indians in souther Arizona

The longer a person has diabetes, the greater the risk for diabetic eye disease. Once vision is lost, it often cannot be restored.

People with diabetes should have a comprehensive dilated eye exam at least once a year to help protect their sight.

Keeping diabetes in control is key to slowing the progression of vision complications like diabetic retinopathy. There are important steps people with diabetes can take to keep their health on TRACK:

- Take your medications as prescribed by your doctor.
- Reach and maintain a healthy weight.
- Add physical activity to your daily routine.
- Control your ABC's—A1C, blood pressure, and cholesterol levels.
- Kick the smoking habit.

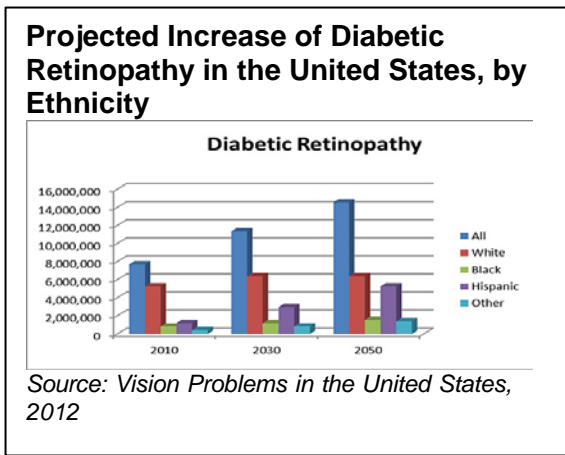
Dr. Paul Sieving, director of the National Eye Institute (NEI), says, "Only about half of all

### Did You Know?

- Everyone with diabetes is at risk for diabetic retinopathy.
- About 16% of American Indians and Alaska Natives have diabetes.
- There are no early symptoms.
- A dilated eye exam can detect eye disease before vision loss occurs.
- Don't wait until you notice an eye problem to have an exam.

people with diabetes get an annual comprehensive dilated eye exam, which is essential for detecting diabetic eye disease early, when it is most treatable. Newer and better treatments are available for the first time in decades, making early detection even more important.”

With no early symptoms, diabetic eye disease—a group of conditions including cataract, glaucoma, and diabetic retinopathy—can affect anyone with type 1 or type 2 diabetes. American Indians/Alaska Natives are at higher risk for losing vision or going blind from diabetes. Early detection, timely treatment, and appropriate follow-up care can reduce a person’s risk for severe vision loss from diabetic eye disease by 95 percent.



“More than ever, it’s important for people with diabetes to have a comprehensive dilated eye exam at least once a year. New treatments are being developed all the time, and we are learning that different treatments may work best for different patients. What hasn’t changed is that early treatment is always better,” says Dr. Suber Huang, chair of the Diabetic Eye Disease Subcommittee for NEI’s National Eye Health Education Program (NEHEP) and member of the NEI-funded Diabetic Retinopathy Clinical Research Network (DRCR.net). “There has never been a more hopeful time in the treatment of diabetic retinopathy,” he adds.

Remember, if you have diabetes, make annual comprehensive dilated eye exams part of your self- management routine. Living with diabetes can be challenging, but you don’t have to lose your vision or go blind because of it. To help friends and loved ones reduce their risk, please share this article.



For more information on diabetic eye disease, tips on finding an eye care professional, or information on financial assistance, visit <https://www.nei.nih.gov/diabetes> or call NEI at 301-496-5248.



***NEI leads the federal government's research on the visual system and eye diseases. NEI supports basic and clinical science programs to develop sight-saving treatments and address special needs of people with vision loss. For more information, visit <https://www.nei.nih.gov/>***

***NIH, the Nation's medical research agency, includes 27 Institutes and Centers and is a component of the U.S. Department of Health and Human Services. NIH is the primary federal agency conducting and supporting basic, clinical, and translational medical research, and investigating the causes, treatments, and cures for both common and rare diseases. For more information about NIH and its programs, visit <https://www.nih.gov>.***

# 8 TIPS

## for Healthy Eyes: Look, See and Feel Better!



- 1 Be active.**  
Regular exercise can delay the onset of age-related macular degeneration (the leading cause of permanent vision loss later in life).

- 2 Schedule eye exams for your whole family.**  
A comprehensive eye exam can detect serious problems, like diabetes, before you even know they exist!



- 3 Wear sunglasses** to protect your eyes from the sun's UV rays, which can be dangerous even on cloudy days.



- 4 Rest your eyes** once every 20 minutes for 20 seconds while on your cell phone, tablet or computer, to help prevent eye strain.

- 5 Eat your greens.**  
A diet rich in fruits, leafy greens and omega-3 fatty acids can help reduce your risk of dry eyes, macular degeneration, glaucoma and more.



- 6 If you smoke, quit!**  
Smoking increases your risk of cataracts and sight-threatening eye diseases.

- 7 Wear safety goggles.**  
An estimated 2.4 million eye injuries occur in the United States each year, and 90 percent of them can be avoided with protective eyewear.



- 8 Drink lots of water.**  
Without enough water, you can't produce enough tears to keep your eyes moist and nourished.

## Educating American Indians/ Alaska Natives About Diabetic Eye Disease

### Tip Sheet



Diabetes is an epidemic in the United States. In the past 30 years, the number of adults diagnosed with diabetes has increased by more than 150 percent.<sup>1</sup> Diabetes can cause many health problems, including vision loss and blindness. The longer a person has diabetes, the higher his or her risk is of getting diabetic eye disease, yet half of all people with diabetes don't get annual comprehensive dilated eye exams. Start the conversation about diabetic eye disease so you can help people with diabetes protect their sight.

### What Is Diabetic Eye Disease?

Diabetic eye disease refers to a group of eye problems people with diabetes may face as a complication of this disease, which can lead to vision loss and blindness. These include—

- **Cataract:** Clouding of the lens of the eye
- **Diabetic retinopathy:** Damage to the blood vessels in the retina, the light-sensitive tissue in the back of the eye
- **Glaucoma:** Increase in fluid pressure inside the eye that leads to optic nerve damage and loss of vision

To help prevent vision loss and blindness, it's important for people with diabetes to have a comprehensive dilated eye exam at least once a year to detect diabetic eye disease early and to keep their diabetes under control.

### What Are the Symptoms of Diabetic Retinopathy?

Diabetic retinopathy is the most common diabetic eye disease. It often has no early symptoms; however, only 11 percent of adults over 18 in the

United States are aware of this.<sup>2</sup> It is vital they be informed that diabetic retinopathy can cause vision loss that usually cannot be restored but that vision loss can be prevented or minimized with early detection, timely treatment, and appropriate follow-up care.



### Tip Box:

To help American Indians/Alaska Natives reduce their risk of vision loss and blindness, encourage them to get a comprehensive dilated eye exam every year and to control their diabetes by—

Taking their medications.

Reaching and maintaining a healthy weight.

Adding physical activity to their daily routine.

Controlling their blood sugar, blood pressure, and cholesterol.

Kicking the smoking habit.

## American Indians/Alaska Natives, Diabetes, and Diabetic Retinopathy

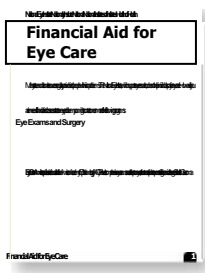
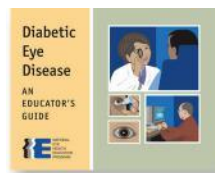
American Indians/Alaska Natives are the most likely to have diabetes than all other U.S. adults. Among American Indian/Alaska Native adults, the age-adjusted rate of diagnosed diabetes varies by region, from 6.0 percent among Alaska Natives to 24.1 percent among American Indians in southern Arizona.<sup>3</sup> Almost 8 million adults age 40 and older in the United States have diabetic retinopathy. This number is expected to increase to 11 million in 2030 and 15 million in 2050.<sup>4</sup>

### What You Can Do

As a health or community educator, you can guide, motivate, and encourage American Indians/Alaska Natives with diabetes to protect their vision. Please visit the National Eye Institute (NEI) Publications Catalog [Outreach Materials | National Eye Institute \(nih.gov\)](#) and download diabetic eye disease resources (available in English and Spanish) for your discussions. These resources can help you raise awareness about how American Indians/Alaska Natives with diabetes can protect their sight.

Help the National Eye Health Education Program (NEHEP) spread the word:

- Discuss the relationship between diabetes and vision with your patients or those you serve.
- Have copies of NEHEP resources available and share them in your office.
- Post or tweet the following call to action on your Facebook and Twitter sites: Everyone with diabetes needs to get a comprehensive dilated eye exam at least once a year.
- Host a health-related event at your location, a local community gathering, a talking circle, or a powwow, and speak about diabetic eye disease and the importance of healthy vision.
- Take extra time to answer questions during health appointments (if you are a healthcare provider or community health representative) and make sure patients understand their role in maintaining healthy vision. If a caregiver or family member is with them, please make sure that he or she understands the information you provide.



## Diabetic Eye Disease Resources

- **Diabetic Eye Disease: An Educator's Guide**—This patient education tool for health professionals and community-based educators is a desktop flipchart, with text and illustrations to help guide discussions with people who have diabetes.
- **Don't Lose Sight of Diabetic Eye Disease**—This brochure provides information about diabetic eye disease and what people can do to prevent vision loss.
- **Diabetes and Healthy Eyes Toolkit**—This educational toolkit provides community health workers and health promoters with information and tools to help them educate people about diabetic eye disease in small group settings.
- **Medicare Benefit Card**—This card promotes the glaucoma and diabetic eye disease benefit under Medicare and describes eligibility requirements.
- **Financial Aid for Eye Care**—This handout lists state and national resources that regularly provide aid to people with vision problems.

## Other Diabetic Eye Disease Resources

NEHEP provides additional resources you can use year round on your website, in your newsletter, or with any other educational or outreach efforts.

Check these out at [www.nei.nih.gov/nehep/programs/diabeticeyedisease](http://www.nei.nih.gov/nehep/programs/diabeticeyedisease)

- Diabetic eye disease education website
- Drop-in articles
- Infocards
- Print public service announcements
- Social media messages
- Videos and animations
- Web banners

### Join us!

Together, we can make a difference. We look forward to working with you to help people with diabetes protect their sight.

• Centers for Disease Control and Prevention. *Crude and Age-Adjusted Percentage of Civilian, Noninstitutionalized Adults With Diagnosed Diabetes, United States, 1980–2011*. Atlanta, GA: U.S. Department of Health and Human Services, 2013. Available at <https://www.cdc.gov/diabetes/data/statistics/statistics-report.html>

• National Eye Health Education Program et al. *2005 Survey of Public Knowledge, Attitudes, and Practices Related to Eye Health and Disease*, 2005. Bethesda, MD: National Eye Institute.

• Centers for Disease Control and Prevention. *National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2014*. Atlanta, GA: U.S. Department of Health and Human Services; 2014. Available at: <https://www.cdc.gov/diabetes/data/statistics/statistics-report.html>

• National Eye Institute. *Projections for Diabetic Retinopathy (2010-2030-2050), 2012*. Available at <https://www.nei.nih.gov/eyedata/diabetic.asp#4>

For more information on diabetic eye disease, visit

[www.nei.nih.gov/diabetes](http://www.nei.nih.gov/diabetes)

or call NEI at 301–496–5248.



National Eye Institute



A program of the National Institutes of Health

