



HOW ARE THE EYES AND DIABETES CONNECTED?



How are the eyes and diabetes connected?

Diabetic retinopathy is a potentially blinding complication of diabetes that damages the eye's retina, affecting half of all Americans diagnosed with diabetes. Diabetes is the leading cause of new cases of blindness among adults 20-74 years old.

At first, with diabetic retinopathy, you may not notice any changes in your vision. Diabetic retinopathy often has no early warning signs.

How does it work?

The retina is a light-sensitive tissue at the back of the eye. When light enters the eye, the retina changes the light into nerve signals. The retina sends these signals along the optic nerve to the brain. Without a retina, the eye cannot communicate with the brain, making vision impossible.

Diabetic retinopathy occurs when diabetes damages the tiny blood vessels in the retina.

In some people, a condition called macular edema develops. It occurs when the damaged blood vessels leak fluid and lipids onto the macula, the part of the retina that enables us to see detail. The fluid makes the macula swell, blurring vision.

As the disease progresses, it enters its advanced, or proliferative stage. Fragile, new blood vessels grow (proliferate) along the retina and into the clear, gel-like vitreous humor that fills the inside of the eye. Without timely treatment, these new blood vessels can bleed, cloud vision and destroy the retina.

The only way to detect the progression of diabetic retinopathy is to have a dilated, comprehensive eye examination.

When the optometrist looks inside the eye at the retina, he or she can see the blood vessels directly. The eye is the only place on the body that blood vessels can be seen without having to look through skin or tissue that interferes with the view. As a result, optometrists can detect many diseases that affect our blood vessels, in addition to being able to monitor an existing condition.

Also during a comprehensive eye exam, an optometrist will check for glaucoma by evaluating eye pressure and the optic nerve head for potential damage. People with diabetes are 40 percent more likely to experience glaucoma than people without diabetes.

In addition, the optometrist can see cataracts when examining the inside of the eye. In people with diabetes, cataracts are 60 percent more likely to develop than in people without diabetes. Diabetics also tend to get cataracts at a younger age and they progress faster. The eye's clear lens clouds with cataracts, blocking light and making the vision dimmer and cloudier.

If you have diabetes, the American Optometric Association recommends having an annual dilated eye examination. You should also have a dilated eye examination if there are changes in your vision or if you are pregnant or planning to get pregnant, whether you have diabetes or not.

