

Columbus Ophthalmology Associates
DIABETES AND THE EYE

What is diabetes?

Diabetes Mellitus (DM) impairs the body's ability to utilize sugars. This systemic disease affects the walls of small blood vessels throughout the body. When not well controlled, diabetes can affect the eye in several ways.

Diabetic Retinopathy

Diabetic retinopathy affects the delicate retina by causing a deterioration of the blood vessels. The retina is the portion of the eye that acts much like the film in a camera. All light images are carried from the retina to the brain by the optic nerve.

Background diabetic retinopathy is a milder form of disease. Only a few vessels are enlarged and form small balloon-like sacs called micro-aneurysms. These leaky vessels can cause small hemorrhages and fluid deposits on the surface of the retina. This is the earlier stage of the disease and vision is not usually seriously affected. If the leakage, however, causes fluid to collect in the center of the retina, known as the macula, straight ahead images can be blurred and a loss of central vision may result. About one half of all diabetics will have some form of retinopathy by 10-15 years of their disease.

A more serious form of the disease is called Proliferative Retinopathy. Abnormal blood vessels grow which are very fragile and can rupture causing large hemorrhages to leak into the vitreous gel that fills the back part of the eye. These large blood clots block light passing through the pupil and can significantly reduce vision. Significant scar tissue and severe loss of vision can result from traction detachments of the retina.

It is recommended that diabetic patients have at least a yearly examination of the retina by a doctor experienced in treating diabetic eye disease. If retinal disease is present, your doctor may see you more frequently. In some cases, photography may be necessary to locate leaking blood vessels. This technique is known as fluorescein angiography.

Early treatments of leaking blood vessels are performed by the Argon laser. Small bursts of laser energy can seal leaking vessels. The laser has significantly reduced vision loss in diabetic patients. Successful treatment, however, depends on early detection and monitoring. Likewise, patients must maintain good control of their diabetes to prevent further damage to their eyes.

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