Diabetes and Eye Conditions

What Vision Problems may be caused by Diabetes?

Vision impairment is a frequent complication of diabetes, both type 1 and type 2.

- The major cause of blindness in people with diabetes is diabetic retinopathy. Diabetic retinopathy is a term used for all the abnormalities of the small blood vessels of the retina caused by diabetes, such as weakening of blood vessel walls or leakage from blood vessels. Retinopathy progresses from non-proliferative or background retinopathy to proliferative retinopathy.

- Non-proliferative retinopathy is a common, usually mild form that generally does not interfere with vision. Abnormalities are limited to the retina and usually will only interfere with vision if it involves the macula, the area on the retina that gives us the sharpest vision. If left untreated it can progress to proliferative retinopathy.

- Proliferative retinopathy, the more serious form, occurs when new blood vessels branch out or proliferate in and around the retina. It can cause bleeding into the fluid-filled center of the eye or swelling of the retina, and lead to blindness.

- Nearly all patients who have type 1 diabetes for about 20 years will have evidence of diabetic retinopathy.

- Up to 21 percent of people with type 2 diabetes have retinopathy when they are first diagnosed with diabetes, and most will eventually develop some degree of retinopathy.

- In the United States, diabetes is the leading cause of new cases of blindness in adults 20-74 years of age. Each year, from 12,000 to 24,000 people lose their sight because of diabetes.

- Glaucoma, cataracts and corneal disease are more common in people with diabetes and contribute to the high rate of blindness.

Can Diabetes-Related Vision Problems be Prevented?

The key to preventing diabetes-related eye problems is good control of blood glucose levels, a healthy diet and good eye care.

- The Diabetes Control and Complications Trial (DCCT), a 10-year study which ended in June 1993, proved among type 1 patients that improved blood glucose control prevents or delays diabetic retinopathy. Therapy that keeps blood sugar

levels as close to normal as possible reduced damage to the eyes by 76 percent. (New England Journal of Medicine, September 30, 1993)

- Because a person with diabetes can have retinopathy and not know it, a regular checkup with an eye care professional is essential. Regular checkups with an eye doctor can detect retinopathy early and possibly prevent blindness.

What Should Diabetes Patients Do?

- Patients with type 1 diabetes should see their eye care professional annually for a dilated eye examination beginning within three to five years of the onset of diabetes. Women with type 1 who are pregnant should have a comprehensive eye examination in the first trimester and close follow-up throughout pregnancy.

- Patients with type 2 diabetes should see their eye care professional for a dilated eye examination shortly after diagnosis of diabetes and annually thereafter.

- One of the main motivations for screening for diabetic retinopathy is there are effective treatments to prevent vision loss.

What Is Needed?

In ideal circumstances, patients with diabetes will have their disease under good control and be monitored frequently by health care providers knowledgeable in the care of diabetes.

- Health care provider education is vital. Because people with diabetes have a multi-system chronic disease, they are best monitored and managed by highly skilled health care professionals trained with the latest information on diabetes to help ensure early detection and appropriate treatment of the serious complications of the disease. A team approach to treating and monitoring this disease serves the best interests of the patient.

- Patient education is key. People with diabetes can reduce their risk for complications if they are educated about their disease, learn and practice the skills necessary to better control their blood glucose levels and receive regular checkups from their health care providers.

- Reimbursement for eye examinations and diabetes education is essential. To reduce the cases of blindness due to diabetes, early detection is important. Patient education, provider team education and affordable eye care can make this possible.

Source: Florida Department of Health. Diabetes Prevention and Control Program.
http://www.doh.state.fl.us/Family/DCP/whatis/eye.html