Diabetes and the Eye

What is diabetes?
Diabetes is a disease in which the body does not control sugar (glucose) or use it for energy in the proper way.

What causes diabetes?
Diabetes is caused by either a lack of insulin or when the insulin made by the pancreas does not work properly. Insulin is the hormone that controls the level of sugar in the blood.
How does diabetes affect the eyes?

Diabetes can affect many body organs (nerves, kidneys, heart and eyes).

Diabetes can lead to:

› Blurred vision or a hard time focusing (with poorly controlled and high levels of sugar in the blood)
› Cataracts (clouding of the lens of the eye)
› Double vision (if it affects the nerves that control eye movement)
› Glaucoma (caused by damage to the optic nerve)
› Diabetic retinopathy (changes take place in the blood vessels of the retina)
› Diabetic macular edema (swelling in the macula)
What is diabetic retinopathy?

- The retina is the very thin, delicate tissue at the back of the eye that changes light into visual images in your brain. It acts like the film in a camera. The retina’s health depends on nearby blood vessels. Diabetic retinopathy happens when changes take place in these vessels, causing leakage or bleeding.

- In the early stages of this condition, the vessels can get weak and leak fluid or blood. Vision at this time may be normal or blurry. About 1 in 4 people with diabetes have some degree of this condition.

- Sometimes the vessels in the retina close and the retina does not get enough oxygen to be healthy. New blood vessels can grow to replace these closed vessels. These new vessels are fragile and may cause bleeding into the eye. This bleeding blocks vision and may form scar tissue. Scar tissue can then pull on the retina and cause a retinal detachment (separation). This can result in loss of vision or even blindness.
What treatments are there for diabetic retinopathy?
Laser treatment is used to seal leaky vessels and to help keep new, more fragile ones from growing. Some people will need a surgery called a vitrectomy to take away large amounts of blood and/or tissue from the eye. Others may also need surgery to repair a detached (loose) retina.

What is diabetic macular edema?
This is a swelling of the macular area. It may be caused by diabetes, happen after eye surgery or happen for no known reason (idiopathic).

What treatments are there for diabetic macular edema?
An ophthalmologist will give an injection of medication directly into the eye. The choice of medication(s) depends on the patient’s condition. The ophthalmologist will choose the best medication for you.

Any of the problems on page 3 or 4 may or may not cause changes in vision.
What can I do to help my eyes?
Severe loss of vision may be helped or slowed by laser treatments. It is important to find any problems early. The best way for you to help is to have a yearly eye exam to help find the early signs of diabetic retinopathy.

Good control of blood sugar is also important in keeping your eyes healthy. A proper balance of diet, medication and exercise will make sure that you are doing your best to keep your diabetes under control. It is also very important to control your blood pressure and cholesterol levels.

What are your questions? Please ask.

We are here to help you.