Diabetes and Your Eyes
Importance of Annual Eye Exams

The two most important things you can do for your eye health as a diabetic is to properly manage your blood sugars and receive an annual dilated eye exam from an eye health professional. This will prevent development and progression of any new disease in the eye as well as detect any existing condition of the eye early enough such that it can be managed without complications.

Why should your eyes be tested regularly?
Diabetes is the leading cause of blindness in the United States. With diabetes, you have a 25 times higher risk of blindness than the average American and each year in the US, there are more than 12,000 new cases resulting from diabetes. This significant risk of developing blindness is because diabetic eye changes often occur silently, without symptoms, until it is too late and permanent damage to your eye has already occurred. Studies suggest that up to 20% of people who are newly diagnosed with diabetes already have changes in the eye and this number rises up to 80% after 20 years of having the disease. The bottom line is that diabetes poses a significant risk to eye health which could eventually lead to blindness.

What is exactly is diabetic retinopathy?
Diabetic retinopathy is when the light-sensing layer in the back of the eye, called the retina, is damaged by high blood sugars resulting in blurred or clouded vision. High sugar levels in the blood causes the small blood vessels inside the eye to become leaky, allowing blood and fluid to seep out into the surrounding area. Over time this causes permanent damage to the retinal blood flow and eventually the retina itself.

What are doctors looking for in the eye exam?
Eye doctors are looking for evidence of damage to the blood supply of the retina. There may be areas that are leaking blood, referred to as retinal hemorrhage. There may be areas that are leaking fluid, referred to as retinal edema. There also may be areas where blood vessels have been damaged to the point where new ones are beginning to form, referred to as neovascularization. These new blood vessels however are poorly constructed and are very leaky, causing more harm than good.
What type of exams should be performed and how often?

If you have been diagnosed with diabetes, you should have a dilated eye exam at least once a year. This exam is best performed by either an ophthalmologist or an optometrist, both of which are highly trained eye-care professionals. The dilation step of the exam is where eyedrops are used to open the pupils, allowing for a better view of the retina and other structures inside the eye. This step is a necessity for diabetics having their eyes examined. In general, the diabetic eye exam will be covered by most insurance companies, but check with your eye doctor to be sure. Additionally, make sure that your eye doctor knows the name of your primary care physician such that the results can be communicated.

What can be done for my diabetic retinopathy?

If you are found to have diabetic retinopathy, you will likely need to see an ophthalmologist. The ophthalmologist will re-examine your eye and manage your condition depending on the level of severity. In general, if the retinopathy is mild, a good diabetic management strategy including diet modification, increased exercise, and medication, along with frequent eye exams is all that is needed. If the retinopathy is more severe, an ophthalmologist may suggest a procedure referred to as laser photocoagulation. This is a type of eye surgery in which a laser is used to seal off leakage of fluid from abnormal blood vessels. The procedure prevents further progression of the retinopathy but does not reverse any permanent damage that may have already occurred. After surgery, continued proper management of blood sugars is essential and regular eye exams are required to ensure the health of the eye and prevent blindness.

References/Resources