

## **Diabetes and your Eyes**

Diabetes is a common disease that occurs when the body fails to make enough insulin, or is unable to use insulin properly. As a result, blood sugar (glucose) tends to be too high. This elevated blood sugar can create a number of problems for the body over the course of time. In general, the long-term complications of diabetes are related to blood vessel damage in various organs including the eye.

Vision problems related to diabetes include fluctuating vision, double vision, and loss of vision. The most common reason patients with diabetes experience loss of vision is "**diabetic retinopathy**". This condition is the result of damaged or leaking blood vessels in the retina. When diabetic retinopathy begins to affect the quality of vision eye doctors often recommend treatment that may include laser therapy, injections of medication into the eye, or surgery.

Patients with diabetes who maintain "tight" control of their blood sugars and blood pressure reduce their risk of diabetes related complications. The American Diabetes Association (ADA) recommends that diabetics maintain fasting blood sugars between **70 and 130 mg/dl**. Since blood sugars often fluctuate considerably throughout the day and from one day to the next, a very useful means of determining the longer-term success of blood sugar control is the **Hemoglobin A1c test (HbA1c)**. This test is a measure of the average blood glucose levels over the prior 2 to 3 months. The ADA recommends a HbA1c value below **7%** for most patients with diabetes.

Diabetes management usually requires life-style adjustments and consistent concentrated effort. The basic principles include:

- **Healthy diet** - This should include adequate quantities of fruits and vegetables, fish, lean meats, chicken or turkey without the skin, whole grains, and low-fat or skim milk and cheese.
- **Weight control** - For patients with type-2 diabetes weight loss can dramatically improve blood sugar control.
- **Exercise** - Most people need 30 to 60 minutes of brisk physical activity daily.
- **Glucose monitoring** - The only way to know for sure how well blood sugar is controlled is to check it on a regular basis.
- **Medication** - Medication may be required to maintain blood sugars and blood pressure in a healthy range.