

## **Laser Treatment for Diabetic Retinopathy**

When a person has diabetes, his or her body either doesn't produce enough or doesn't use its own insulin as it should, which causes sugars to build up and become too high in the blood. Having diabetes doesn't necessarily mean that your sight will be affected, but there is a higher risk for visual complications. Diabetes can affect the eye in a number of ways. The most serious condition is diabetic retinopathy, in which blood vessels at the back of the eye 'leak' fluid into the retina. Most sight-threatening problems caused by diabetic retinopathy can be managed by laser treatment.

A laser emits a special type of high-energy light, which can be accurately focused. We use this light to 'zap' tiny blood vessels at the back of the eye, sealing them. This procedure may take more than one session to completely seal all the vessels. Also, if new blood vessels are growing, more extensive laser treatment has to be administered.

There are two types of laser treatment that can be performed, depending on how advanced your eye condition is. Focal laser treatment is recommended for those whose diabetes affects the macula (center of the retina) portion of the eye. When the disease is more advanced, panretinal laser treatment may be used. In this procedure, the laser concentrates on the outer retinal area. Multiple treatments may be necessary in either case.

Before either procedure, eye drops are used to enlarge your pupils so that we can see into your eye. The eye is then numbed with drops and a small contact lens is put in to prevent blinking. During the laser treatment, we will ask you to move your eyes while we apply the laser.

There is a risk of side effects from the laser treatment, but the risk to your vision of not treating your diabetes-related conditions is far greater. The laser treatment for sealing blood vessels has very few side effects.

Laser treatment to remove new blood vessels is more complicated and, therefore, has a greater risk for side effects. The laser is very bright and causes a temporary reduction of sight that will only last an hour or two. You may lose a small amount of your central vision, which is usually temporary, or see black spots in your vision. Your side vision and color vision may also be affected. We will discuss the possibility of side effects from your laser treatment with you before your surgery.



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The purpose of laser treatment for patients with diabetes-related eye complications is to preserve sight. This is why it's so important that treatment is administered early, before there is significant visual loss.

Regular, annual eye examinations are vital, as you may not realize that there is anything wrong with your eyes until it is too late. You may think your vision is good, but damage could be done to your retina before you experience symptoms. On a lighter note, just because your vision is deteriorating does not mean that you have diabetic retinopathy. You may simply need glasses or contacts.