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By reading and following these instructions carefully, you will gain a better understanding of diabetic retinopathy. It is indeed a pleasure to provide this reinforcement of our care.

DIABETIC RETINOPATHY

BACKGROUND DIABETIC RETINOPATHY

Sometimes in diabetics we can observe changes called "background diabetic retinopathy". Diabetes can affect the blood vessels in the eye causing leakage of blood and decreased oxygen supply to the sensitive retina. The loss of oxygen supply can cause loss of vision. Complications from diabetes have become the leading causes of vision loss in the United States. The degree of damage to the retina is determined by careful observation, and often analysis with a scanning laser ophthalmoscope, or a test called fluorescein angiography.

No treatment is required for mild background diabetic retinopathy. In more advanced cases, laser treatment is used to stabilize the retinal blood vessel abnormalities and leaks. Studies have shown that careful attention to controlling blood sugar levels, regular exercise, and attention to diet can make a significant difference in limiting the damage to the eye from diabetes. Early stage background diabetic retinopathy does not present symptoms so careful monitoring through annual dilated fundus examination is essential to detect progression of the retinal damage.

PROLIFERATIVE DIABETIC RETINOPATHY

Proliferative diabetic retinopathy is an ocular complication of diabetes where abnormal blood vessels grow inside the eye. These new blood vessels, called neovascularization, are very fragile and easily bleed into the retina. This bleeding can cause scar tissue and secondarily may cause issues such as a detached retina or glaucoma.

Proliferative diabetic retinopathy is a serious condition. Aggressive treatment with medications, application of laser therapy, and blood sugar control is almost always indicated in the attempt to limit the loss of vision.

DIABETIC MACULAR EDEMA - DME

In "diabetic macular edema", the retina is swollen. The swelling is caused by leaky blood vessels due to diabetes. The macula is a special part of the retina. It is located in the very center of your vision and is responsible for your fine visual tasks.

The macular edema (retinal swelling) can cause blurred vision. Laser treatment has been used to stabilize the macular edema. The first step is to determine the amount and location of the leakage. This can be done with a test called OCT. If we detect diabetic macular edema, we may send you for a retinal consult if treatment is necessary.

Diabetic macular edema indicates moderately advanced diabetic retinopathy. Careful and frequent eye examinations should be performed so that early treatment can be provided when necessary. You should be alert to any changes in your vision with use of an Amsler Grid and report them promptly. An Amsler Grid is available as a free download from our website.

DIGITAL RETINAL PHOTOGRAPHY

We use digital retinal photography to monitor the retina for changes due to diabetic retinopathy. The retina is the thin multi-layered inner lining of the back of the eye responsible for sight. It can be compared to the film in conventional cameras. Images can be instantly evaluated, and reviewed, with our patient's chair-side. This technology increases the quality of the retinal exam by allowing us to view almost the entire retina. This is helpful for detecting eye disease along with detecting and

managing other medical conditions such as hypertension and diabetes.

Your images are stored permanently and used to compare with future images of your retina, in subsequent exams. Our office is pleased to provide our patients with this valuable level of care.

OPTICAL COHERENCE TOMOGRAPHY (OCT)

Recent developments in computer imaging technology allow us to easily and rapidly image the retina utilizing a three-dimensional cross-section. This revolutionary test allows us to better understand and view disease progression of the retina, macula, and optic nerve long before actual vision loss. This technology utilizes real-time information of the living eye, analogous to an in vivo histological section of retinal tissue. Images are viewed immediately and analyzed by comparing them to a database of normal outcomes of a patient's age. The image can be compared to an ultrasound, but instead of sound, the process utilizes reflected light and converts the layered image into varied identifiable colors. This technology allows us to more accurately follow disease progression and has quickly become the standard of care for patients with documented cautions, strong family histories, or simply to monitor the effectiveness or timing of treatment.

This eye care report is provided as an advanced level of service. If you have any questions or persistent visual/ocular symptoms after reading this report, please contact our office immediately. Thank you for allowing us to participate in your care.