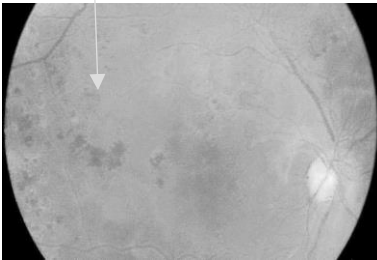


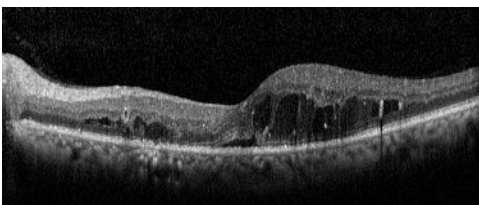
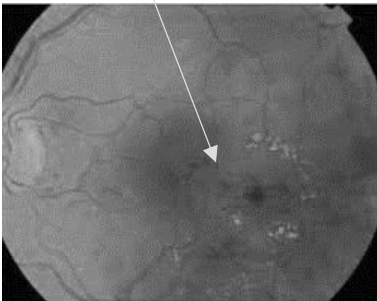
Normal Retina



Diabetic Retinopathy



Macular Edema



OCT cross-section of the retina showing DME

## Who We Are

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### About Us

Dr. Cecchi offers a wide variety of eye and vision related services.

Specializing in cataract surgery, he also offers comprehensive eye exams, glaucoma screening and treatment, macular degeneration monitoring, and functional eyelid surgery.

### Contact Us

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581 Main St. Oneida, NY, 13421



## Diabetes and the Eye

# How does Diabetes affect the eyes?

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Diabetes is a systemic condition involving the uptake of sugar within the body's tissues. Over 10 million Americans are affected by Diabetes Mellitus (DM). DM is a known risk factor for developing cataract, glaucoma, and periodic blurring of vision with fluctuating blood glucose levels. There are 2 important vision threatening conditions which occur in DM. Retinopathy and Macular Edema.

## Diabetic Retinopathy

Diabetes can damage the body's arteries and veins through a failure to provide necessary nutrients to them. This in turn causes a breakdown of the integrity of the inner lining of capillaries within the retina. Over a period of time these blood vessels may leak causing tiny spots of bleeding within the retina, or outpouching of the capillaries known as microaneurysms. There is a spectrum of retinopathy from mild, moderate, to severe.

For more reading: [www.nei.nih.org](http://www.nei.nih.org)

Non-proliferative retinopathy (NPDR) is usually milder and can be reversible in its early stages. This is usually not vision threatening. If severe it can lead to the next stage, so may require laser treatment.

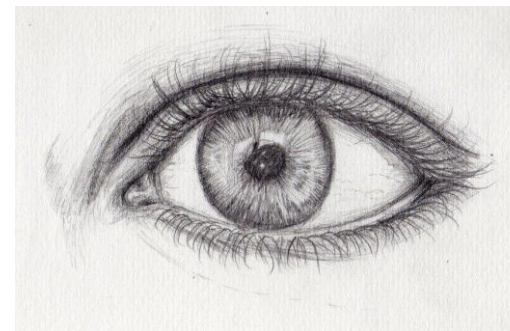
Proliferative Diabetic Retinopathy (PDR) is more severe and implies the ingrowth of new blood vessels within the retina. This is a vision threatening condition which can lead to spontaneous bleeding within the eye, retinal detachment caused by scarring, or aggressive glaucoma.

## Macular Edema

Diabetic Macular Edema (DME) is swelling within the retina caused by leakage of the retinal capillaries. This causes blurred vision, If left untreated it can cause permanent vision loss. Subtle changes within the retina may be precursors to symptomatic changes noticeable to the patient. In some cases treatment is required before the vision is affected.

## Diagnosis

A yearly eye exam is recommended. As early retinopathy is without symptoms, only a trained eye doctor can detect early changes. Macular edema may also be detected despite good glucose control. Dr. Cecchi uses the Heidelberg OCT laser camera to detect early changes and for yearly comparison.



## Treatment

For severe NPDR or PDR laser is indicated to reverse the process of blood vessel ingrowth. The laser is applied to the peripheral retina by a retina specialist. Intraocular injection with Anti-VEGF medication also is very effective at reversing the process.

For DME, intraocular injection with Anti-VEGF medication has become the mainstay of treatment. In some cases topical drops or laser is needed.

For Vitreous Hemorrhage or Retinal Detachment surgery may be required.

The best treatment in any of these conditions is PREVENTION.

Optimization of blood sugars is the best way to avoid these potentially blinding conditions. The treatments can be very effective, but given the severity of the disease there may be lasting consequences to your eyesight despite adequate intervention.