

## DIABETIC RETINOPATHY

A COMPLICATION OF DIABETES INVOLVING ABNORMAL BLOOD VESSELS WHICH NOURISH THE RETINA OF THE EYE

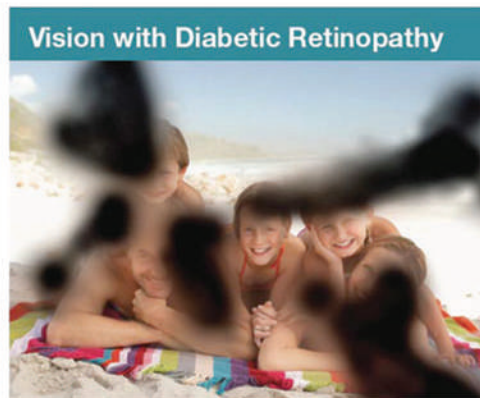
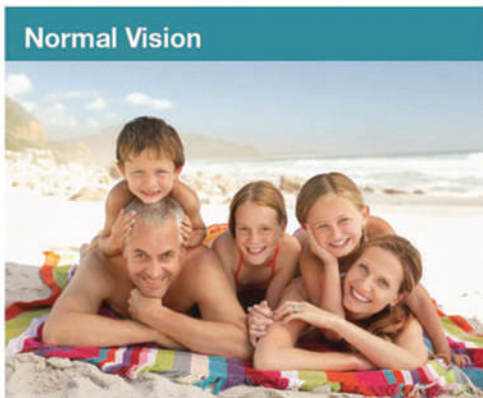
Diabetic retinopathy is the leading cause of blindness among adults. Approximately 25% of current diabetics have some form of the disease. The risk of developing diabetic retinopathy increases with the age of the diabetic person and the duration of the disease. It is estimated that 90% of diabetics may experience some form of diabetic over the course of their life.

### WHAT IS DIABETIC RETINOPATHY?

Diabetic retinopathy is a complication of diabetes mellitus which causes abnormalities in the tiny blood vessels nourishing the retina (the layer of nerve tissue which lines the back portion of the eye). These vessels weaken, leak fluid and blood, and fail to provide nutrients necessary for good health in the retina. Left untreated, diabetic retinopathy can result in severe visual loss, including blindness.

### WHAT CAUSES DIABETIC RETINOPATHY?

If a person has uncontrolled blood sugar or diabetes for a longer period of time, they have a higher likelihood of developing diabetic retinopathy.



### WHAT ARE THE SYMPTOMS OF DIABETIC RETINOPATHY?

Though vision may gradually become blurred, significant loss of sight does not usually occur with non-proliferative retinopathy. Since the patient does not experience pain or external symptoms such as bloodshot eyes or discharge, changes in the retina can go unnoticed unless detected by an eye examination.

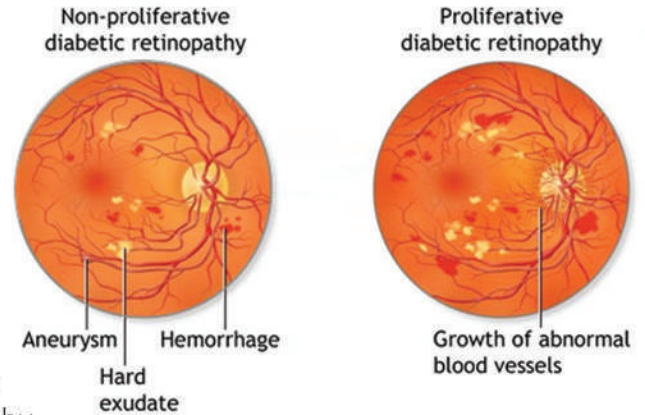
When bleeding occurs in proliferative retinopathy, the patient has clouding or complete loss of sight. Connective tissue pulling on the retina causes distortion and blurring. However, if abnormalities occur in the peripheral retina, the patient may not experience any symptoms.

# DIABETIC RETINOPATHY

A COMPLICATION OF DIABETES INVOLVING ABNORMAL BLOOD VESSELS WHICH NOURISH THE RETINA OF THE EYE

## WHAT IS NON-PROLIFERATIVE DIABETIC RETINOPATHY?

Diabetic retinopathy can take two forms, non-proliferative retinopathy and proliferative retinopathy. During the early stage of the disease (non-proliferative retinopathy), small blood vessels in the retina leak a clear fluid (serum) into the surrounding tissue which causes swelling. Abnormal blood vessels may also hemorrhage or leak fats and proteins which form deposits. If fluid collects in the macula, diminished or blurred vision will result. However, if leakage or deposits occur in the outer edges of the retina, no symptoms may be noticed. Non-proliferative retinopathy is a warning sign and can progress into the more serious stage of the disease, proliferative retinopathy.



## WHAT IS PROLIFERATIVE DIABETIC RETINOPATHY?

Proliferative diabetic retinopathy is the more advanced stage of the disease. New abnormal blood vessels grow over the retina and may grow into the clear vitreous. These new vessels bleed into the vitreous, blocking light from reaching the retina and causing vision to become cloudy. Connective tissue growing along with abnormal blood vessels may contract, pulling the retina off its underlying structures and toward the vitreous (retinal detachment). Proliferative retinopathy affects approximately 5% of all diabetics and becomes more likely with increased duration of diabetes. If left untreated, proliferative retinopathy can lead to blindness.

## HOW IS DIABETIC RETINOPATHY TREATED?

Treatment of the diabetic retinopathy depends on the location of the disease and the degree of damage to the retina. If retinopathy occurs in the peripheral retina, careful monitoring of the disease may be all that is necessary. When retinopathy affects the macula and central vision, laser treatment or injections inside the eye may be necessary.

## PREVENTION IS THE BEST MEDICINE

Early detection and management of diabetic retinopathy is important to arrest or slow the development of the more sight damaging stages of the disease. Even when no symptoms are noticed, the diabetic patient should have frequent eye examinations, as recommended by Coachella Valley Optometry. Non-diabetics should also have their eyes examined periodically to help detect the presence of diabetes and other diseases. With careful monitoring, treatment of diabetic retinopathy can usually be started before sight is affected.

If you are experiencing the symptoms of diabetic retinopathy or other vision problems, you should obtain a complete eye examination with one of our doctors at Coachella Valley Optometry immediately. If you have diabetes mellitus, you should have a dilated eye examination at least once a year for the rest of your life.