

# Diabetes + Your Eyes

## Diabetes-related Retinopathy – Symptoms + Risks

### What are the Symptoms of Diabetes-related Retinopathy?

Early detection and treatment can reduce your risk of diabetes-related retinopathy. You will usually not experience symptoms in the early stages, which is why it is important for you to have an eye exam annually, or as directed by your doctor. Eye exams can be done either through a dilated eye exam with an eye doctor (preferred method) or through photos of the retina in each eye, which may not require dilation of the eyes.

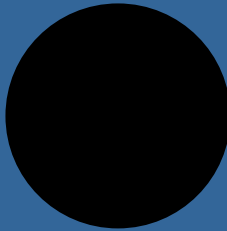
Vision changes due to diabetes-related eye disease usually affects both eyes. Here are some symptoms you can look for:



**Sudden increase in eye floaters**  
*(spots and/or dark cobweb-like strands)*



**Blurred vision**



**Sudden loss of vision in one eye**



**Halos around lights**



**Flashing lights**



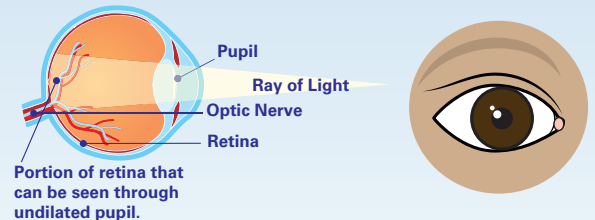
**Poor night and color vision**

Contact your eye doctor right away if you experience any of these symptoms.

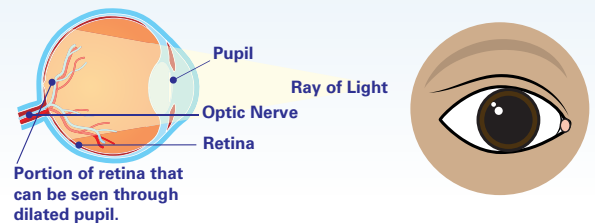
### Why is a Dilated Eye Exam Important?

Dilation of the eyes is done using eye drops to widen the opening on the front of your eye, called the pupil. This allows the eye doctor to see into the back of the eye. This is an important step to take when getting an eye exam for people living with diabetes. The temporary side effects of dilation eye drops are blurring of vision, especially up close, and sensitivity to light. The side effects only last a few hours or less, but the benefit from the eye exam can be enormous!

#### UNDILATED PUPIL



#### DILATED PUPIL



### Different words, same meaning.

The words below refer to the same condition and can be used interchangeably.

Diabetes-related eye disease = diabetic eye disease

Diabetes-related retinopathy = diabetic retinopathy

Diabetes-related macular edema  
= diabetic macular edema

# What Decreases and Increases Your Risk for Diabetes-related Retinopathy?

If you have diabetes, there are different factors that can decrease and increase your risk for developing diabetes-related retinopathy. Your risk depends on:



**Duration of the Disease:** The longer you have diabetes, the greater your risk for developing diabetes-related retinopathy.



**Blood glucose management:** Blood glucose management will decrease your risk for diabetes-related retinopathy and vision loss. Work with your healthcare provider to be sure your glucose level is in your recommended target range.



**Race:** Some racial and ethnic groups are at higher risk. If you are African American, Hispanic, American Indian, Asian American, or Pacific Islander, you are at increased risk for developing diabetes-related retinopathy.



**Smoking:** Smoking increases your risk. If you don't smoke, be sure you do not start. If you do smoke, ask your doctor how to help you quit.



**Blood pressure and cholesterol:** By managing your blood pressure and cholesterol you will decrease your risk of eye disease. You will also protect your heart, kidneys, feet, ears, and eyes. Eat a healthy diet, get regular exercise and/or take medication as prescribed by your doctor to manage your blood pressure and cholesterol levels. These steps will help you reduce your risk of diabetes-related retinopathy.



**Pregnancy:** If you have diabetes prior to getting pregnant, see your eye doctor regularly to prevent risks of developing diabetes-related retinopathy. If you develop gestational diabetes during pregnancy, your risks are much lower and you are not required to get an eye examination.



**Kidney Disease:** There is a close relationship between kidney disease and diabetes-related retinopathy. Preventing complication with your kidneys will also help prevent diabetes-related retinopathy.

## KNOW YOUR ABCs OF DIABETES TO PROTECT YOUR EYE HEALTH

**A**

### A1C:

Manage your blood glucose.  
Have your A1C checked every 6 months.

**B**

### BLOOD PRESSURE:

Manage your blood pressure to protect your heart, kidney, and eye health.

**C**

### CHOLESTEROL:

Manage your cholesterol levels.

**D**

### DON'T SMOKE:

Don't start smoking and if you smoke, quit.

**E**

### EYES:

Get a comprehensive dilated eye exam annually.

## For More Information:

Visit the following webpage for more information about diabetes-related eye disease, insurance information, financial assistance information, and healthy living choices to reduce your risk for eye disease:

### Diabetes & Your Eyes Resources

[www.preventblindness.org/diabetes](http://www.preventblindness.org/diabetes).



Made possible by funding from the Allergan Foundation



# Diabetes + Your Eyes

## Diabetes-related Retinopathy – Diagnosis, Treatment, & Prevention

### How is Diabetes-related Retinopathy Diagnosed?

If you have diabetes, you should have an eye exam which includes dilation at least once a year, or more often as recommended by your eye doctor (an ophthalmologist or optometrist). Your eye examination should include dilation. Dilation of the eyes is done using eye drops to widen the opening on the front of your eye, called the pupil. This allows the eye doctor to see into the back of the eye. This is an important step to take when getting an eye exam for people living with diabetes. The temporary side effects of dilation eye drops are blurring of vision, especially up close, and sensitivity to light. The effects only last a few hours or less, but the benefit can be enormous!

If for some reason you cannot fit in an annual dilated eye exam, work with your primary care doctor to have photos taken of your retina in each eye to screen for diabetes-related eye disease. These photos are examined by an eye doctor to determine if you might have diabetes-related eye disease. Your photos can be used to compare to images taken in past and future exams. This helps monitor the health of your eye to determine if you have retinopathy and need a complete dilated eye exam. Your eye doctor can then use the pictures to show you what is happening in your eye so, together, you can develop a treatment plan. Timely treatment of diabetes-related retinopathy can help reduce your risk for vision loss.

### Different words, same meaning.

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Diabetes-related eye disease = diabetic eye disease

Diabetes-related retinopathy = diabetic retinopathy

Diabetes-related macular edema = diabetic macular edema

### How is Diabetes-related Retinopathy Treated?

In the early stages of diabetes-related retinopathy, annual dilated eye exams (or more often as recommended by the eye doctor) are important for monitoring retinopathy.

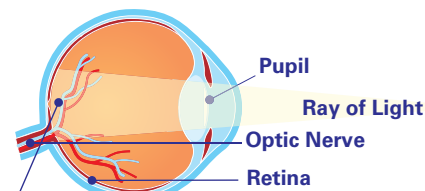
In more advanced stages, you have a range of options for treatment, including:

- medications
- laser procedures
- surgery

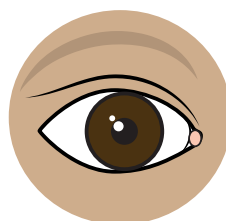
Talking with your eye doctor and working together on your treatment plan is the best way to determine the next steps that are right for you.

It is important that you know that damage in your retina often happens before you notice changes in your vision. Having a dilated eye exam annually (or at least retinal photographs evaluated by an eye doctor) is the best way to catch any eye disease in its early stage to ensure you have healthy vision. Your eye doctor will talk with you if you need an eye exam more than once a year and/or to discuss any treatment you may need.

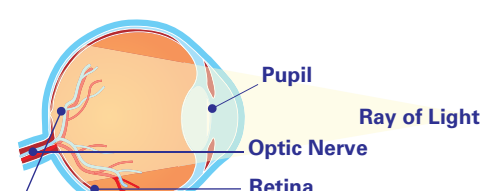
#### UNDILATED PUPIL



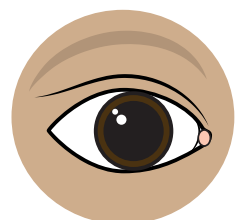
Portion of retina that can be seen through undilated pupil.

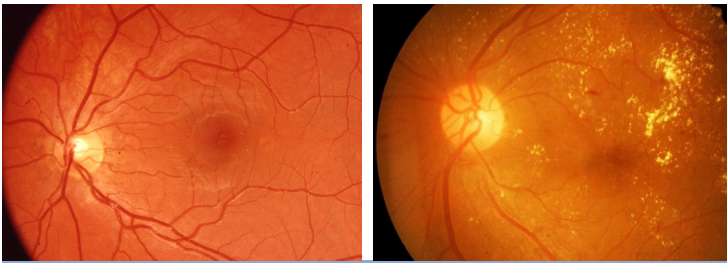


#### DILATED PUPIL



Portion of retina that can be seen through dilated pupil.





Normal

Diseased



## How Can You Keep Your Eyes Healthy When You Have Diabetes?

- Know your numbers to manage your glucose, blood pressure, and cholesterol levels.
- Get a dilated eye exam annually, or more often as recommended by the eye doctor. If you cannot get an eye exam annually, work with your primary health doctor to obtain photos of your retina in each eye. These photos are examined by an eye doctor to determine if you might have diabetes-related eye disease.
- Maintain a healthy lifestyle. This should include regular exercise, not smoking, and following a healthy meal plan. Talk to a dietitian or diabetes educator about your eating habits and creating an exercise routine. There are a lot of wonderful recipes and fitness resources to help you!

## Optometrists and Ophthalmologists are Both Eye Doctors. What is the Difference?

An optometrist is an eye doctor who has earned the Doctor of Optometry (OD) degree. Optometrists can perform eye exams, prescribe eyeglasses and contact lenses, diagnose disease, prescribe medications to treat certain eye problems and diseases, and may also provide your pre- and post-operative care if you have eye surgery performed by an ophthalmologist.

An ophthalmologist is a medical doctor (MD) or an osteopathic doctor (DO). Ophthalmologists are trained to perform eye exams, write prescriptions for eyeglasses and contact lenses, diagnose and treat disease, prescribe medications, and perform eye surgery.

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