

## What is Diabetic Retinopathy?

Diabetic Retinopathy (DR) is an eye disease that impacts the blood vessels attached to the retina of a patient with diabetes mellitus. The retina is a layer in the back of the eye that has cells that sense light and create the visual images we see. This disease is the number one cause of blindness in individuals between the ages of 20-64 who are living in the United States. Other risk factors for DR include high blood pressure, elevated fat or cholesterol levels, smoking, nerve damage, and pregnancy. While DR is extremely common, there are ways for patients with diabetes to decrease their risk of retinopathy and to slow the progression of the disease. This is done by monitoring glucose (sugar) intake very carefully. Together with our preceptor, Dr. Kim, O.D., Shifa Clinic aims to help diagnose Retinopathy in diabetic patients, treat symptoms of the disease, prevent further worsening of the disease, and inform patients on lifestyle changes that can be beneficial in stopping the progression of DR altogether.

## What are the four stages of Diabetic Retinopathy?

### *Mild Non-proliferative Retinopathy*

-Early stage is often where swelling begins in the retina's blood vessels. Leaking may begin to occur.

### *Moderate Non-proliferative Retinopathy*

-Later stage where the blood vessels which are essential for nourishing the retina become blocked. Swelling and leaking are still occurring in the blood vessels.

### *Severe Non-proliferative Retinopathy*

-Advanced stage where the blood vessels are blocked, meaning the retina is no longer getting the blood supply it needs to work correctly.

### *Proliferative Retinopathy*

-Last stage where proliferation (rapid increase) occurs as a result of the body sending signals to grow more abnormal blood vessels.

## How common is Diabetic Retinopathy in Middle Eastern/South Asian populations?

Prevalence of Diabetic Retinopathy in the Middle East	
Saudi Arabia	19.7%
Yemen	55%
Qatar	23.5%

Kuwait	up to 40%
Egypt	20%
Jordan	up to 64%
Iraq	37%
UAE	19%
Iran	29.6%
Bahrain	25.8%

### **What are some symptoms of Diabetic Retinopathy?**

- Worsening vision/blurry vision
- Complete vision loss
- Floaters in the eye
- Eye pain along with redness
- Color blindness

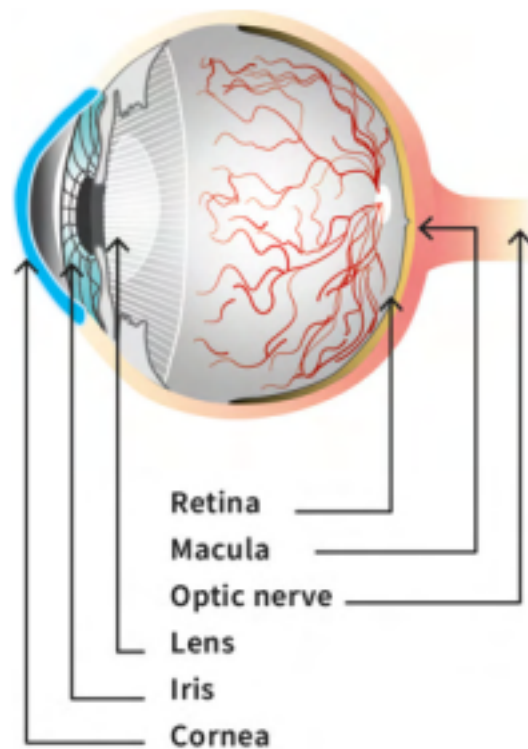
### **What is Screening?**

Glucose is a very important molecule in our body systems. However, it is beneficial mostly when there is an adequate amount in the body. A patient who is suffering with Diabetes has an uncontrolled amount of Glucose in their body. Over time, too much sugar in your blood can lead to the blockage of the tiny blood vessels that nourish the retina, cutting off its blood supply. As a result, the eye attempts to grow new blood vessels. But these new blood vessels don't develop properly and can leak easily

Diabetic retinopathy is a leading cause of preventable vision impairment and blindness. It occurs in about a third of people with diabetes and its damaging effects on vision can be prevented by early detection and treatment through screening

Diabetic retinopathy screening can identify early changes in the retina so treatment can be given before vision loss.

The aim of diabetic retinopathy screening is to reduce the risk of vision impairment and blindness among asymptomatic (those who do not have any symptoms) people with diabetes through the prompt identification and effective treatment of sight threatening diabetic retinopathy. People who develop new symptoms of vision impairment should seek care and be managed in existing eye services as normal.



### **Why should you get screened?**

By far the most important organs of sense are our eyes. We perceive up to 80% of all impressions by means of our sight. And if other senses such as taste or smell stop working, it's the eyes that best protect us from danger.

Sight and vision help to connect people with their surroundings. Our world is filled with an extreme variety of colors, shapes, and patterns. Sight gives us the ability to perceive movement, and vision gives us the ability to make assessments about that movement.

Our eyes are an asset and should be protected at all costs.



### What takes place during eye screening?

Diabetic retinopathy is best diagnosed with a comprehensive dilated eye exam. For this exam, drops placed in your eyes widen (dilate) your pupils to allow your doctor a better view inside your eyes. The drops can cause your close vision to blur until they wear off, several hours later

