

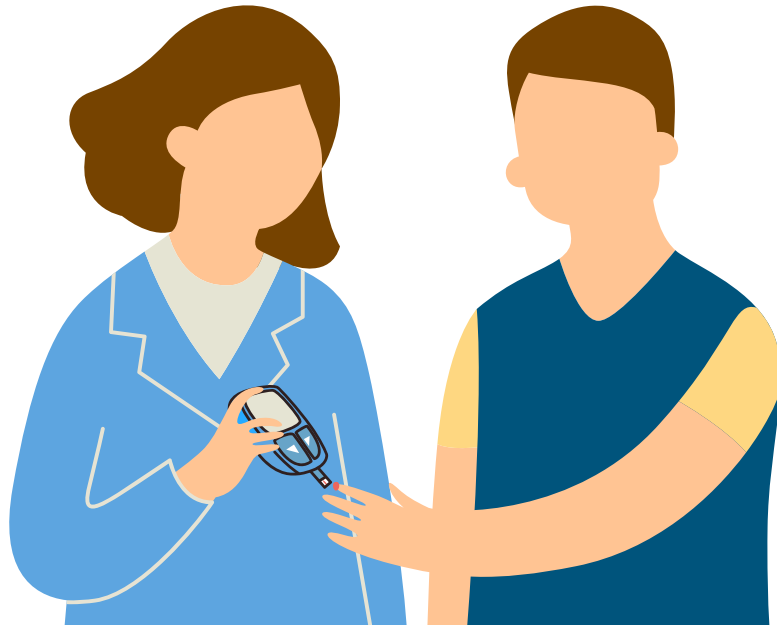
# health+pedia

August 2023



**UNDERSTANDING DIABETIC RETINOPATHY**

# At a Glance: Diabetes



## SYMPTOMS



fatigue and weakness



itchy skin



thirst



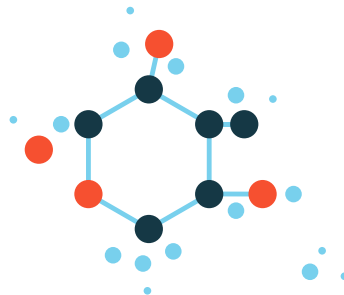
rapid weight loss



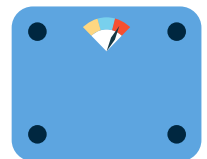
frequent urination



tingling fingertips



elevated glucose levels



excess weight

# At a Glance: Diabetes

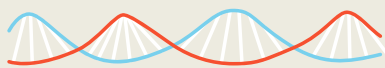
## RISK FACTORS



people over 40



obesity



genetic inheritance



high cholesterol



arterial hypertension

## PREVENTION



glucose control



healthy eating

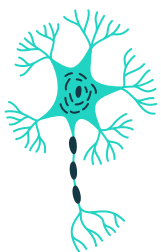


exercise



no smoking

## COMPLICATION



nerve tissue damage



blood vessels damage



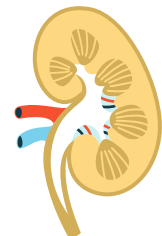
retina damage



diabetic foot



heart damage

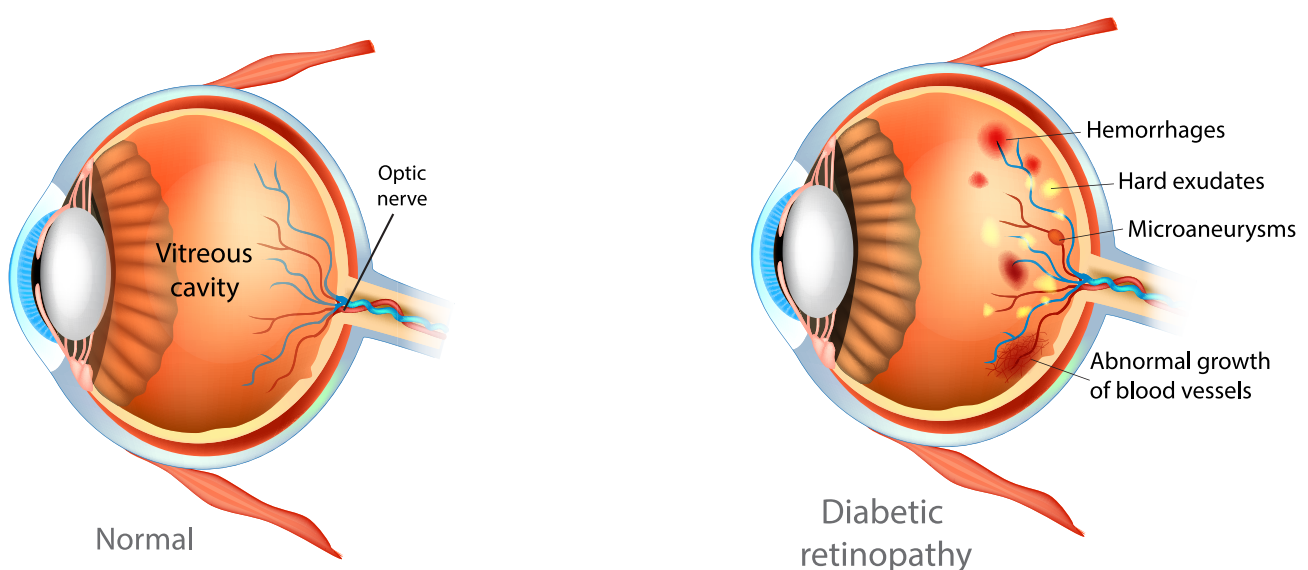


kidneys damage

# Diabetic Retinopathy

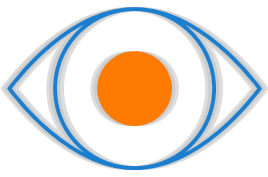
**Diabetic retinopathy**, an eye condition, wherein the retinal blood vessel gets damaged that causes vision loss and eventually progresses to blindness in diabetic patients.

**Underlying cause for diabetic retinopathy** is the increase in blood glucose level in diabetic patients. Increased blood glucose level blocks the tiny blood vessels of the retina, causing fluid leak or bleed. To compensate for these blocked blood vessels, new eye blood vessels grow, however, that doesn't work well. Consequently, these new blood vessels leak or bleed easily.

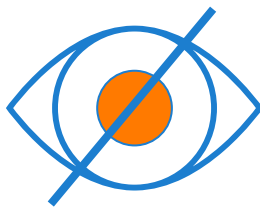


# Symptoms

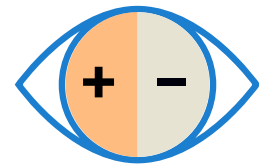
No symptoms observed in the early stages of diabetic retinopathy. As the condition progresses, following symptoms develop:



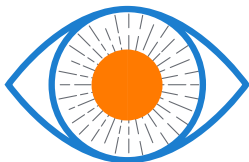
**Blurry  
vision**



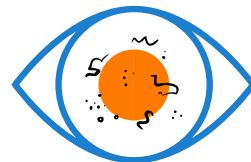
**Vision  
loss**



**Fluctuating  
vision**



**Dark or  
empty areas  
in vision**



**Spots or dark  
strings floating in  
vision (floaters)**

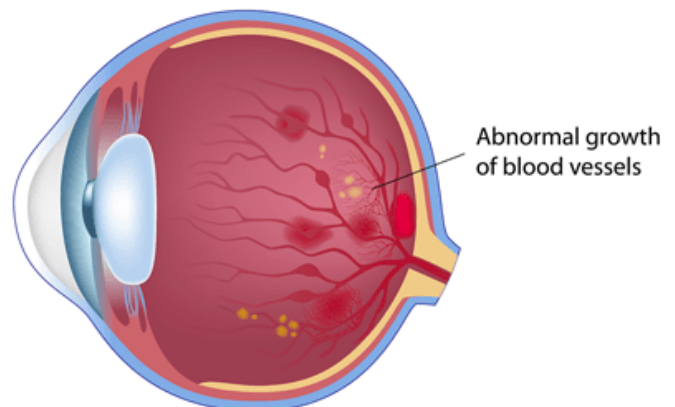
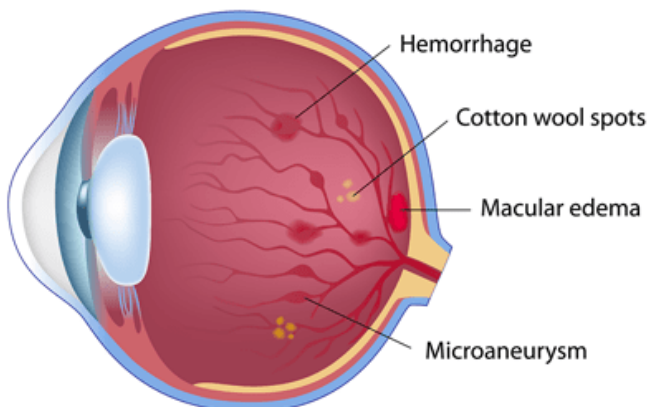
# Diagnosis

- ▶ Comprehensive dilated eye examination
- ▶ Fluorescein angiography involves dilation of eyes, injecting dyes into the vein and followed by imaging of blood vessels.
- ▶ Optical coherence tomography (OCT) provides cross-sectional images of the retina.

## Treatment based on stages of Diabetic retinopathy

Non proliferative diabetic retinopathy (NPDR)

Proliferative diabetic retinopathy (PDR)



# Characterization

## Non proliferative diabetic retinopathy (NPDR)

**Mild NPDR:** Characterized with at least one microaneurysms (tiny bulges in the retinal blood vessel) or hemorrhages (blood-filled bulges may burst and leak into the retina).

### **Moderate NPDR:**

Characterized with increased hemorrhages and microaneurysms along with cotton wool spots, venous beading or intraretinal abnormalities to a mild degree.

### **Severe NPDR (4-2-1):**

Characterized with microaneurysms or hemorrhages in 4 quadrants, venous beading in  $\geq 2$  quadrants and prominent Intra retinal abnormalities in  $\geq 1$  quadrant.

## Proliferative diabetic retinopathy (PDR)

Characterized with an abnormal formation of new retinal blood vessels to compensate for blocked blood vessels.

These abnormal blood vessels leak into the vitreous (jelly-like substance that fills the center of the eye).

# Treatment

Non proliferative diabetic retinopathy (NPDR)

## **Mild NPDR/ Moderate NPDR:**

Anti-VEGF or corticosteroid injections.

## **Severe NPDR:**

Panretinal laser photocoagulation.

Proliferative diabetic retinopathy (PDR)

## **Panretinal Laser**

## **Photocoagulation treatment:**

to treat the growth of new retinal blood vessels.

## **Vitrectomy/Vitreoretinal Surgery:**

involves removal of affected vitreous.





# Do's & Don'ts post-procedure

## DO'S

Follow **the post-operative instructions** regarding eye care, medication use, and follow-up appointments

Use **eye shields or patches** as Directed

Take **prescribed medications** as directed

Wear **protective eyewear**, if engaging in sports or other potentially hazardous activities

Maintain **blood sugar level**

Follow up with the surgeons

## DON'TS

**Rub or touch the eyes**

Engage in **strenuous or vigorous** activities for specific time as advised

Smoke. Don't consume **alcohol or tobacco**-related products

Ignore any **signs of infections or inflammation**

**Drive** for a certain period, as recommended

# References

- 1 Diabetic Retinopathy (2022). National Eye Institute  
Available at: <https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/diabetic-retinopathy#section-id-10527> (Accessed: 23 July 2023).
- 2 Diabetic retinopathy (2021). National Health Service (UK).  
Available at: <https://www.nhs.uk/conditions/diabetic-retinopathy> (Accessed: 23 July 2023).
- 3 Tomita, Y. et al. (2021) 'Updates on the Current Treatments for Diabetic Retinopathy and Possibility of Future Oral Therapy', Journal of clinical medicine research, 10(20).  
Available at: <https://doi.org/10.3390/jcm10204666>.



# Special Benefits Exclusively For

# Futurisk Clients



## Doctor Consultation

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Video/Teleconsultation/  
Physical consultation

**2** Free  
Second Opinion from  
Pristyn Care Surgeons

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**Priority Hospital Admission,**  
No Deposit Required



**Specialized Insurance Support Team**



**Full Assistance**  
from Admission  
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**24/7 Dedicated Support Team**



**Free Meal**  
for Patient's  
Attendant



**Upto 100% Waiver**  
on Non-Payables



**Unlimited Free Post-Surgery Consultations**

# How to Access Benefits



- Download “Futurisk Plus” from the app store
- Enter “Login credentials”
- Select Futurisk Care
- Click on “Pristyn Care
- Request an appointment to access services
- A Pristyn Care Coordinator will arrange a call after submission