

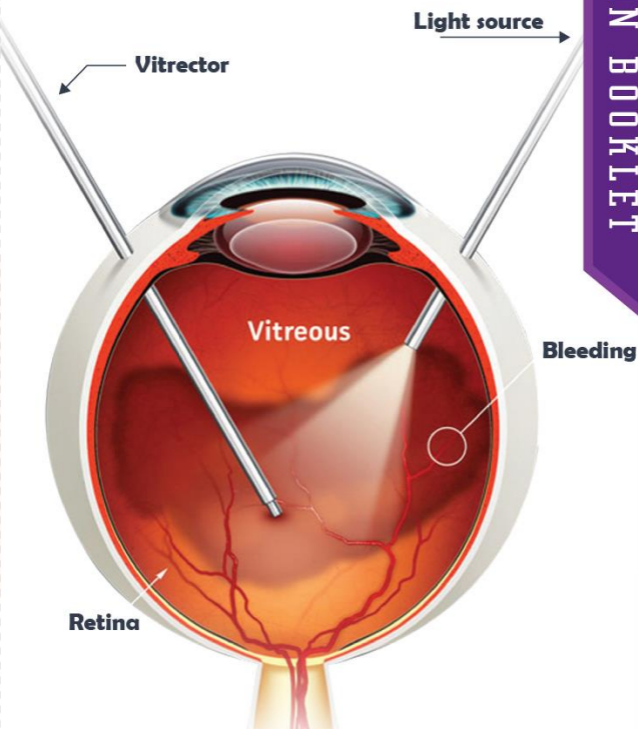
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TUN HUSSEIN ONN NATIONAL EYE HOSPITAL

Your Vision Matters

DIABETIC RETINOPATHY

PATIENT INFORMATION BOOKLET

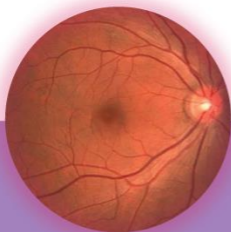


“ It is a potentially blinding complication of diabetes that damages **retinal** in the eye ”

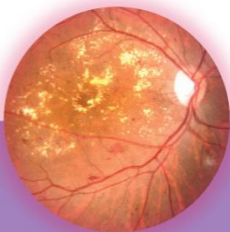
What is the retina?



The retina is a light-sensitive layer at the back of the eye. When light enters the eye, the retina changes the light into nerve signals and transmits it to the brain via the optic nerve.



• Normal Retina



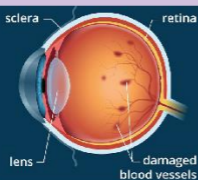
• Diabetic Retinopathy

How does diabetic retinopathy damage the retina?



Diabetic retinopathy occurs when diabetes damages the blood vessels in the retina. Some people develop a condition called macular edema. It occurs when the damaged blood vessels leak fluid and lipids onto the macula, the portion of the retina responsible for detailed vision.

As the disease progresses, it enters its proliferative stage. Fragile new blood vessels grow along the retina (neovascularization) and in the clear, gel-like vitreous that fills the inside of the eye. Without timely treatment, these new blood vessels can bleed, cloud vision, and destroy the retina. In the advanced stage scarring and detachment of the retina occurs.



Who is at risk for this disease?

- All individual with diabetes (Type I and Type II)
- Pregnant women with diabetes.

Signs & symptoms!

Diabetic retinopathy has no early warning signs.
However you may experience:

- Blurring vision
- Difficulty reading
- Sudden loss of vision in one eye
- Seeing rings around lights
- Dark spots or flashing lights



Types of > Diabetic Retinopathy

- **Diabetic Maculopathy:** High blood glucose can damage blood vessels in the retina and leak fluid or bleed. Thus causing the retina to swell and form deposits.
- **Proliferative retinopathy:** New blood vessels grow on the surface of the retina causing serious vision problems because they can break and bleed into the vitreous. This form of diabetic retinopathy is more serious and can lead to blindness.

How is it detected?

- Visual acuity test
- Pupil dilation
- Ophthalmoscopy
- Tonometry
- Fundus photography
- Optical Coherence Tomography (OCT)
- Fluorescein angiography (test to detect leaking blood vessels)

Treatment

- 👁️ Intra vitreal injection of drugs such as steroids and anti VEGF agents such as Avastin, Eylea, Accentrix and Lucentis
- 👁️ **Laser treatment:** A powerful beam of laser light is focused on the damaged retina and many small bursts of the laser beam are used to reduce macular edema (photocoagulation). For abnormal blood vessel growth, the laser beam are focused in an area or scattered over the retina. The small laser scars that result will reduce abnormal blood vessel growth and help bond the retina to the back of the eye.
- 👁️ **Vitrectomy:** Removes the blood-filled vitreous and replaces it with a clear solution
- 👁️ **Retinal repair:** Necessary if scar tissue has detached the retina from the back of the eye.



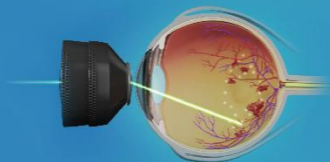
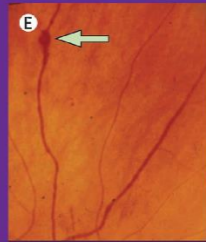
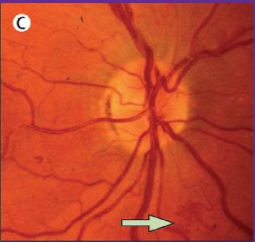
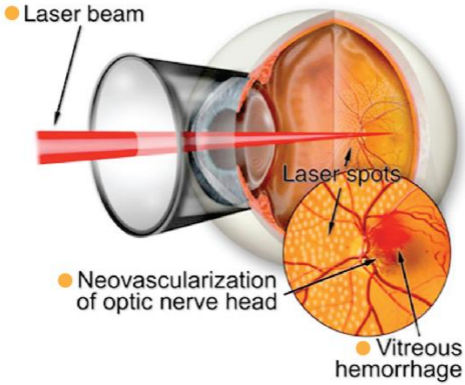
What is your role ?

- 👁️ Keep your blood sugar under good control
- 👁️ Monitor your blood pressure and cholesterol and keep it under good control
- 👁️ Maintain a healthy diet
- 👁️ Exercise regularly
- 👁️ Avoid smoking
- 👁️ See your doctor for a dilated eye exam at least once a year
- 👁️ Blood vessels within the retina may leak fluid and cause blurred vision.

EYES LASER

TREATMENT

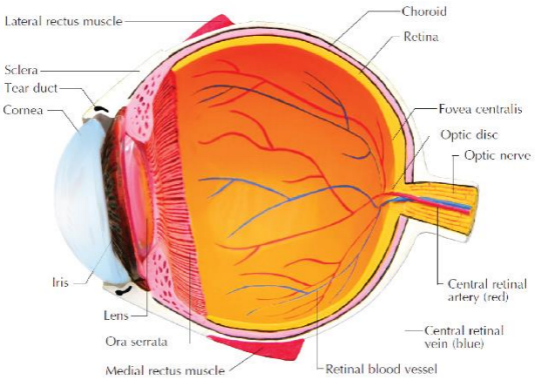
Pan Retinal Photocoagulation (PRP)



Diabetic Eye Disease
Intravitreal Injection



The Human Eye



LOCATION MAP



Address:

The Tun Hussein Onn National Eye Hospital
 Lot 2, Lorong Utara B, 46200 Petaling Jaya,
 Selangor Darul Ehsan, Malaysia.

Operating Hours:

Monday to Friday: 8.30AM - 5.00PM
Saturday: 8.30AM - 1.00PM
 Closed on Sunday & Public Holiday
 ** 24-hour emergency eye clinic available **

Contact Us:

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 National Eye Hospital

Note : This brochure is designed for public information and education only. Any medical decision should be made in consultation with your qualified Ophthalmologist.