

## HKSH Ophthalmology Centre

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### Service Hours

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Saturday: 9:00 am – 1:00 pm  
Closed on Sundays and Public Holidays  
Consultation by Appointment

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Saturday: 9:00 am – 1:00 pm  
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For enquiries and appointments,  
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# Diabetic Retinopathy



## Diabetic Retinopathy

Diabetes Mellitus is one of the major chronic diseases with an increasingly younger age of onset in recent years. In Hong Kong, about 10% of the population has diabetes. The condition can affect multiple organs, including the eyes, potentially leading to complications such as diabetic retinopathy, cataracts, glaucoma, and retinal detachment. The risk of developing diabetic retinopathy, which affects about 30%-40% of diabetic patients, depends on the duration of diabetes and the age at first diagnosis. Therefore, regular check-ups are essential to prevent the complications.

## Signs and Symptoms

Early diabetic retinopathy is asymptomatic, and patients enjoy normal vision without redness and pain in the eyes. However, if the medical condition is not treated, blood vessels would eventually leak serum and phospholipids. Some of these capillaries might become blocked, leading to low oxygen levels and the subsequent growth of new blood vessels. These blood vessels can easily rupture, causing bleeding into the vitreous cavity of the eye. Patients may suddenly experience a significant increase in floaters, decreased vision, distorted vision, and in severe cases, even sudden blindness.



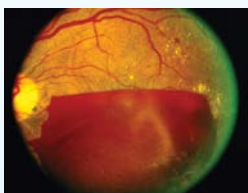
Normal Retina



Retinal haemorrhages,  
cotton wool spots and  
exudates



Retinal detachment



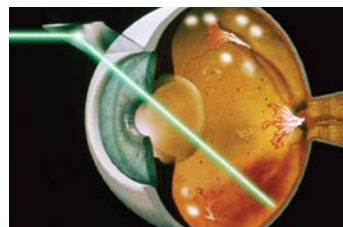
Vitreous haemorrhage

## Examination and Prevention of Complications

After being diagnosed with diabetes, patients must follow their doctors' and dietitians' recommendations to change their lifestyle and manage blood sugar levels with oral medications or injections. A retinal examination by an ophthalmologist is recommended every six to twelve months. Treatment may be required to preserve vision if indicated by a clinical diagnosis, optical coherence tomography (OCT), or fundus fluorescein angiography. More frequent follow-ups are necessary as retinopathy progresses.

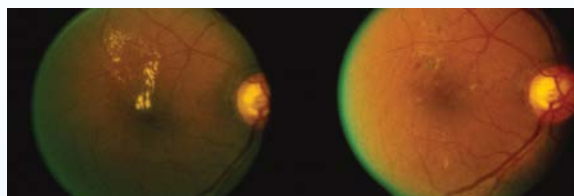
## Latest Treatment

Intravitreal injections of anti-VEGF or laser treatment can help maintain vision when new blood vessels are detected or when macula, the central part of the retina, is at risk due to swelling and fluid leakage. Vitrectomy is effective for restoring vision and treating serious conditions such as retinal detachment, vitreous haemorrhage, or persistent swelling of the macula.



Laser treatment for diabetic retinopathy

### Macular edema



Before treatment

After treatment

## Conclusion

Prevention is the best cure. All diabetic patients must have strict monitoring of blood sugar levels, blood pressure, and cholesterol levels, and receive regular detailed retinal examinations. If necessary, timely medical, laser, or surgical treatment is essential to protect vision and reduce the risk of blindness.