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## Diabetic retinopathy

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### Summary

- All people with diabetes are at risk of developing diabetic retinopathy.
  - Vision loss or blindness may be preventable through early detection and timely treatment.
  - Good control of diabetes, blood pressure and cholesterol as well as regular eye examinations may prevent vision loss.
  - It is important to take action **before** you notice any eye problems.
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Diabetic retinopathy is a complication of diabetes that damages blood vessels inside the retina at the back of the eye. Regular eye exams will reduce the risk of vision loss and blindness caused by diabetic retinopathy. Laser treatment is used successfully to treat retinopathy. All people with diabetes are at risk of developing diabetic retinopathy.

### Types of diabetic retinopathy

There are three main types of diabetic retinopathy:

- **Non-proliferative retinopathy** is an early form of the disease, where the retinal blood vessels leak fluid or bleed.
- **Macular oedema** is a swelling of the macula, caused by the leakage of fluid from retinal blood vessels. It can damage central vision.
- **Proliferative retinopathy** is an advanced form of the disease and occurs when blood vessels in the retina disappear and are replaced by new fragile vessels that bleed easily, and that can result in a sudden loss of vision.

### Retinopathy is a high risk for diabetics

It is important to understand your risk of diabetic retinopathy.

- Anyone with diabetes is at risk of developing retinopathy.
- People with diabetes (type 1 and type 2) are 25 times more likely to experience vision loss than people without diabetes.

Without treatment, diabetic retinopathy can cause loss of vision and blindness. Unfortunately, only half of the people with diabetes have regular eye exams, and one-third have never been checked.

### Symptoms

There are no early-stage symptoms of diabetic retinopathy and vision loss may not occur until the disease is advanced.

Late-stage diabetic retinopathy symptoms include:

- Blurred vision
- Eye strain
- Headaches.

### Causes

Diabetic retinopathy is an eye disease caused by complications of diabetes. Diabetes causes damage to the blood vessels that nourish the retina, the seeing part of the eye.

### Preventing diabetic retinopathy

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Strategies for preventing diabetic retinopathy include:

- **Effective diabetes management** – including better control of blood sugar levels, blood pressure and cholesterol. Good management will help delay the development of retinopathy.
- **Regular eye examinations** – early diagnosis and treatment can usually prevent severe vision loss. It is important to have your eyes tested when diabetes is first diagnosed.

## Treatment

Treatment options include:

- **Manage your diabetes and diabetic retinopathy** – your doctor will assist you.
- **Laser treatment** – for macular oedema and proliferative retinopathy. The laser treatment seals leaking blood vessels and can be used to reduce growth of new fragile vessels, helping prevent vision loss.
- **Surgery** – may be required for severe cases of diabetic retinopathy that do not respond to laser treatment.

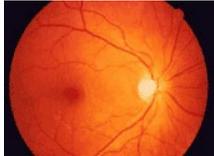


Fig. 1 A photograph of a normal retina

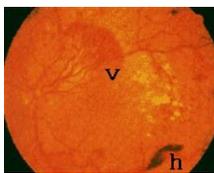


Fig. 2 Photograph of a retina showing proliferative retinopathy – (v) growth of new unnatural blood vessels, (h) retinal hemorrhage.

## Where to get help

- Your family doctor
- Ophthalmologist (eye specialist)
- Optometrist.

## Things to remember

- All people with diabetes are at risk of developing diabetic retinopathy.
- Vision loss or blindness may be preventable through early detection and timely treatment.
- Good control of diabetes, blood pressure and cholesterol as well as regular eye examinations may prevent vision loss.
- It is important to take action **before** you notice any eye problems.

**This page has been produced in consultation with and approved by:**

Centre for Eye Research Australia

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