

the injection at a regular interval. The length of time between injections, and how long you will need to stay on injection

## Can I have injection therapy?

Not everyone with diabetic macular oedema will benefit from injection therapy. We follow guidance from the National Institute of Health and Care Excellence (NICE) when assessing if you will be eligible for injection therapy.

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You are entitled to a copy of any letter we write about you. Please ask if you want one when you come to the hospital.

The evidence used in the preparation of this leaflet is available on request. Please email [patient.information@salisbury.nhs.uk](mailto:patient.information@salisbury.nhs.uk) if you would like a reference list.

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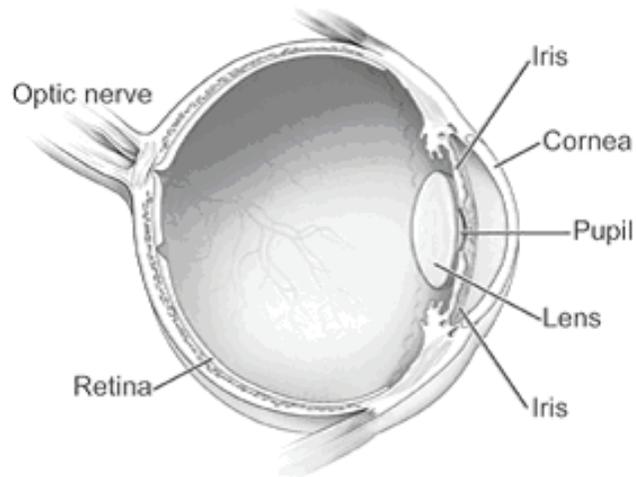


# Diabetes and the Eye

information

**Eye Clinic**  
**01722 336262 ext 5366**  
**(8am - 5pm)**

Salisbury NHS Foundation Trust



Diabetic eye disease is a leading cause of blindness registration among working age adults in England and Wales. It is caused by changes to the tiny blood vessels of the retina (the light sensitive layer at the back of the eye). In diabetic macular oedema, blood vessels leak fluid into the retina. Proliferative diabetic retinopathy is caused by abnormal new blood vessels that grow on the surface of the retina (The light sensitive layer at the back of the eye). This is the most advanced stage of diabetic retinopathy. At this stage, you may not have symptoms but are at high risk for vision loss

significant loss of central vision which may be permanent. This is less common with the development of more advanced lasers. Laser treatment helps to stop your vision from getting worse – it does not usually improve vision. Sometimes, laser treatment does not work and your vision can still get worse. If this is the case or there is extensive bleeding inside the eye which prevents laser treatment, treatment by operation may be necessary.

### **What is injection therapy:**

This treatment involves the injection of medication into the eye. The drug works by reducing fluid leakage from blood vessels around the macula. This in turn reduces swelling of the macula. Studies have shown that this treatment is effective in preventing visual loss and can improve vision in some patients. A course of injections is required to treat diabetic macular oedema. At the start of treatment, usually one injection per month is needed. It is important to attend all appointments while receiving injection therapy. This treatment will not work if you do not have

## **What happens during laser therapy?**

Laser therapy takes place in the outpatient medical retina clinic. You will have drops to widen your pupils and numb your eye. The lights in the room will be dim. You will sit facing the laser machine and the doctor will place a contact lens on your eye. This will allow the doctor to see to the back of the eye and prevent you from blinking. During laser therapy, you will see flashes of light. You may feel a stinging sensation that can be uncomfortable.

After laser therapy, your vision will be a little blurry for the rest of the day. You will need someone to accompany you home after the treatment. You may wish to bring a pair of sunglasses as your eyes will be sensitive to bright lights.

## **What are the side effects of laser therapy?**

You may experience temporary worsening of vision on the day of laser therapy. This is caused by the bright flashing lights from the laser treatment. The vision usually recovers by the next day. Very rarely, you may develop blind spots in your vision or

## **Who is at risk of Retinopathy?**

All people with type 1 and type 2 diabetes are at risk of diabetic retinopathy.

## **How does diabetic macular oedema cause vision loss?**

Vision loss occurs when the fluid reaches the macula (the centre of the retina that provides sharp vision) and builds up, causing swelling. At first, you may not notice changes to your vision. Over time, diabetic macular oedema can cause your central vision to become blurred. A healthy macula is essential for good vision.

## **How does proliferative diabetic retinopathy cause vision loss?**

1. In proliferative diabetic retinopathy, the blood vessels that nourish the retina are blocked. This retina sends signals that trigger the growth of new abnormal blood vessels. These vessels are thin and fragile. By themselves, they do not cause vision loss. However, they will bleed into the retina and gel-like fluid that fills the eye and affects your vision.

## You are at greater risk if you:

1. have had diabetes for a long time – about one in three people living with diabetes for 20 years or more will develop diabetic macular oedema
2. have poorly controlled blood sugars
3. have high blood pressure
4. have high cholesterol levels
5. smoke
6. are pregnant.

Large studies have shown that people who have well-controlled blood sugar, blood pressure and cholesterol levels, and do not smoke are less likely.

## What happens when I attend the medical retina clinic?

You will have a comprehensive eye examination that includes:

- **Visual acuity test:** A sight test that measures how well you see at different distances
- **Eye pressure test:** A test that

measures the pressure of your eyes – numbing drops may be used as part of this test

- **Dilated eye examination:** Drops are placed in your eyes to dilate (widen) your pupils so that the back of your eyes can be examined.

You may also undergo test such as:

- **OCT:** Ocular coherence tomography – Scans of macular to diagnose macular oedema.
- **Fluorescein Angiography:** To diagnose proliferative diabetic retinopathy (a leaflet will be given before performing this test).

## Treatment of Diabetic Reinopathy

Diabetic macular oedema:

1. Laser therapy
2. Injection therapy

**Laser therapy:** To treat diabetic macular oedema and proliferative diabetic retinopathy.