

# Treatment of diabetic macular oedema

Department of Ophthalmology

Information for Patients

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## What is diabetic macular oedema (DMO)?

The macula is the area at the centre of the retina at the back of your eye. It is responsible for your sharp, central vision.

Diabetes can damage blood vessels in the macula. These then leak fluid which causes the retina to become swollen.

This results in your eyesight getting worse and affecting your vision. This can affect tasks such as reading and recognising faces.

## How is DMO treated?

The most common types of treatment for DMO are injections of medicine into the eye or laser treatment to the macula.

### Eye injections

The most commonly used medicines are:

- Aflibercept (Eylea)
- Faricimab (Vabysmo)
- Ranibizumab

**Health information and support is available at [www.nhs.uk](http://www.nhs.uk)  
or call 111 for non-emergency medical advice**

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- Dexamethazone (Ozurdex)
- Fluocinolone acetonide (Iluvien)

The damage to the retina releases a chemical called VEGF and causes inflammation. This causes fluid to leak in the retina. The medicine in the injections block the action of this chemical and reduce inflammation, so helps to stop fluid leaking.

The treatment may not work as well if your diabetes is not well controlled. It is important to control your blood glucose levels and to check that your blood pressure and cholesterol levels are not raised.

You do not have to have treatment for your DMO. Without treatment your vision may continue to get worse and may reach a point where treatment will no longer help.

## **How is the eye injection treatment given?**

- You will be awake for the procedure.
- Anaesthetic drops will be put in the eye to numb the surface of your eye.
- The eyelids and the surface of the eye are both cleaned to reduce the risk of infection.
- The drug is injected into the jelly like substance inside the back of your eye (known as the vitreous of your eye).
- You may feel pressure on your eye when this is done, but you should not feel pain.

After the injection you may have a gritty feeling on your eye and there may be bleeding over the white of your eye. You should not worry about this. It will go within a few days. You might also see black spots (floaters). These will also become smaller and disappear over a couple of weeks.

## **What are the risks of treatment?**

The main risks are those linked to the injection procedure and not the medicine itself. Serious complications of the injection procedure include:

- bleeding
- infection of the eye (endophthalmitis)

- increased risk of cataract formation
- the thin layer at the back of your eye (retina) becomes loose (retinal detachment)

The risks will be explained and discussed with you before you agree to treatment.

### **More common side effects may include:**

- eye pain
- bloodshot eye (conjunctival haemorrhage)
- black spots in your vision (vitreous floaters)
- swelling of the front of your eye (cornea)
- inflammation of the eye
- visual disturbances such as small specks in your vision

### **Other complications**

Very small amounts of these medicines are injected into the eye, so side effects elsewhere in the body are very low.

If enough of the medicine gets into the bloodstream there may be an increased risk of getting blood clots (which may cause heart attack or stroke). Patients with a history of a stroke may be at higher risk of another stroke. If you have had a stroke, please discuss this with your eye doctor or nurse.

### **Unexpected risks**

When a medication is used in a large number of patients, unexpected problems may happen that are not due to the treatment. For example, patients with high blood pressure have an increased risk of heart attacks. If a patient being treated for DMO suffers a heart attack, it may be because of the high blood pressure and not because of the treatment for DMO.

### **Reducing the risk of infection**

Please follow these instructions after you have had your injection:

- Avoid rubbing the eye.
- Avoid getting water into your eye or swimming for the first 3 days.

If you have an eye infection on the day of your treatment, the injection may have to

be delayed until the infection has gone. Please tell your eye doctor or nurse if you have a red or sticky eye. Your injection may also not be possible if you have an infection in any other part of the body that you are having treatment for.

## Important information

If you have any of the following after your injection, please contact Eye Casualty as soon as possible:

- pain
- blurred or reduced vision
- sensitivity to light
- redness of your eye (increasing compared to straight after your injection)
- sticky discharge from your eye

Please keep all your appointments after your injection so that any problems can be picked up. If you cannot attend your appointment, please let us know as soon as possible, so we can rearrange this for you.

Although the chance of serious complications affecting other organs of your body is low, you should contact your GP or go to your local Emergency Department immediately if you have:

- abdominal pain
- abnormal bleeding
- chest pain
- severe headache
- slurred speech
- sudden limb numbness or weakness

## What to do if you have any concerns

If you have any concerns or queries that cannot wait until your appointment then please call the ophthalmic secretaries on **0116 258 7661**.

If you have any of the following you must contact us immediately:

- If you have increasing pain in your eye 24 hours after your injection.

- Your eye becomes more red, painful and swollen.
- Your vision gets worse after the treatment.

If you think you may have any of these problems after your injection, you should contact the **Eye Casualty Department on 0116 258 6273** or attend Eye Casualty located in the Windsor Eye Clinic, Level 1, Windsor Building, Leicester Royal Infirmary:

Opening times: Monday to Friday, 8.30am to 4.30pm  
Saturday & Sunday, 8.30am to 12pm

If your problem happens outside of these hours and you feel that it is urgent, you should attend the main Adult Emergency Department at Leicester Royal Infirmary.

### Laser treatment

Laser treatment is another treatment option, depending on the location of the retinal swelling . It is used on areas of the retina that are collecting fluid, that has not yet reached the centre of the macula. The aim is to stop the fluid from reaching the central area, as this can be a risk to your eyesight.

Laser has been shown to keep the vision stable. However, it is less common for laser to improve vision.

### More information

For more information and support to do with DMO and information on low visual aids, please visit the Macular Society website at:

<https://www.macularsociety.org/>

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