

# Information for patients and carers

## Diabetic Vitreous Haemorrhage



## What is a diabetic vitreous haemorrhage?

The main chamber of the eyeball is called the vitreous cavity, and this is normally filled with a clear jelly called vitreous. If bleeding into the vitreous occurs this is called a vitreous haemorrhage. Vitreous haemorrhage can occur because of being diabetic.

## How does a vitreous haemorrhage affect the vision?

If there is only a little bleeding, patients experience haziness and some new floaters (shadows like dark hairs or blobs which move around the eye and are more noticeable against a bright background) but with more bleeding the blood can block the eyesight. If you think of your eye as being a camera, light must pass through the eye to the retina. The retina is like the film in the camera and lines the inside of the back of the eyeball. Therefore, blood inside the eyeball can block the eyesight by getting in the way of the light passing through the eye.

## Why does vitreous haemorrhage occur in people with diabetes?

Diabetic patients can have problems in the eye because of abnormalities in the fine blood vessels that supply oxygen and nutrients to the retina. In diabetics these blood vessels can become closed, reducing the oxygen supply to the retina. The retina tried to compensate by growing new blood vessels, but these are abnormal and fragile and do not supply the retina with blood. They grow from the retina into the vitreous and can bleed, particularly if the vitreous is pulling on them.

## How is diabetic vitreous haemorrhage managed?

In some cases, it is possible that you will be advised to wait for the blood to clear spontaneously. Laser treatment may then be performed to try to reduce the chance of further bleeding.

Alternatively, a vitrectomy operation can be used to remove the vitreous and with it most of the blood. If the vitreous is removed the chance of further bleeding may be reduced if the vitreous was pulling on the abnormal blood vessels.

Injections of drugs into the eye such as Bevacizumab, Ongavia, Eylea, Lucentis or Ozurdex may play a role in the future and some surgeons may discuss these treatment options with you.

## Laser treatment to the retina for diabetic vitreous haemorrhage

Retinal laser treatment may be advised if you have had a vitreous haemorrhage. Further laser treatment may still be advised if you have already had laser treatment to the retina.

The laser heats up and deliberately destroys some of the peripheral retina and this is thought to reduce the oxygen demand of the retina. This in turn reduces the drive for the new abnormal blood vessels to grow. This can even cause existing abnormal blood vessels to shrink. Laser treatment can affect the peripheral sight and may be a necessary consequence of the efforts to try to protect the central sight.

## What are the risks of laser treatment to the retina for new vessels?

Laser treatment can occasionally affect the central sight if the fluid gathers in the central retina. This may spontaneously improve but in some cases central sight is affected long term. Another rare

consequence is scarring in the central retina which can cause reduced sight or distortion. This may lead to reduced central sight in the long term. However, the risks of treatment must be weighed against the potential benefits. Laser treatment in patients with high risks features related to diabetes reduces the risk of severe visual loss in that eye from around 30% to 15% in the two years after treatment.

Laser surgery can result in reduced peripheral field (or side vision) and reduced night vision. Some patients must stop driving because the DVLA standards require people to have certain amount of peripheral field vision.

The DVLA has visual standards which must be met for you to be allowed to drive. All diabetics taking tablets for diabetes or insulin should inform the DVLA and in many cases patients with diabetes will be allowed to continue driving. If you have any treatments to the retina again it is important to inform the DVLA to make sure that you still meet the requirements.

## Contact details

Eye Triage Telephone: **01257 245346**

## Sources of further information

Information taken from and adapted from:

BEAVRS British and Eire Association of Vitreoretinal Surgeons (2024)

[www.lancsteachinghospitals.nhs.uk](http://www.lancsteachinghospitals.nhs.uk)

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