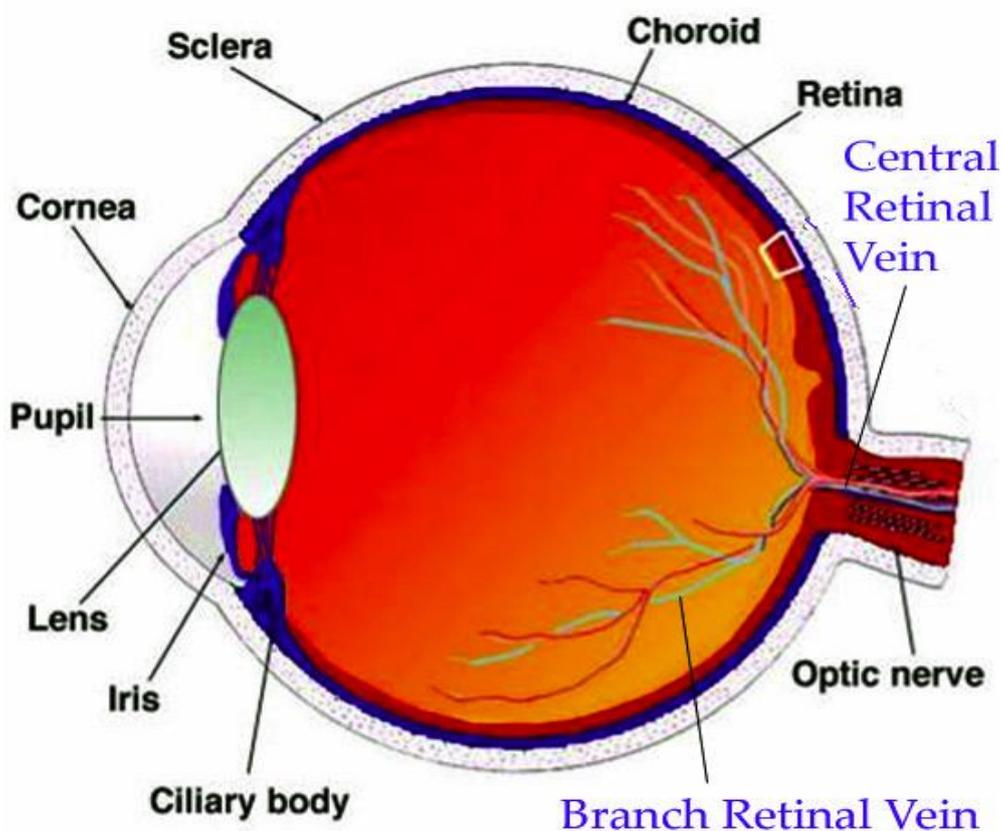


Ophthalmology Department

Retinal Vein Occlusion

What is Retinal Vein Occlusion?

Occlusion of a retinal vein is a common cause of sudden painless reduction in vision in older people. It occurs when a blood clot forms in a retinal vein. The retina is the thin membrane that lines the inner surface of the back of the eye. It is similar to the film of a camera. Blockage of one of the veins draining blood out of the eye causes blood and other fluids to leak into the retina causing bruising and swelling as well as lack of oxygen. This interferes with the light receptor cells and reduces vision.

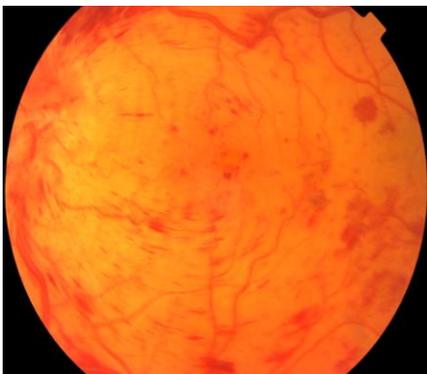


The condition is uncommon under the age of 60 but becomes more frequent in later life.

There are two types of retinal vein occlusion



Branch Retinal Vein occlusions are due to obstruction of one of the four retinal veins. Each vein drains approximately a quarter of the retina.



Central Retinal Vein Occlusion is due to obstruction of the main vein formed from the four branches.

In general, visual loss is more severe if the central retinal vein is occluded.

What causes Retinal Vein Occlusion?

A clot forming in the retinal vein results in complete obstruction of blood flow. The exact cause of this event is generally unknown but a number of common conditions increase the risk of retinal vein occlusion occurring. These include:

- High blood pressure
- High cholesterol
- Glaucoma
- Diabetes
- Smoking
- A number of rare blood disorders

Prevention and treatment

It is essential to identify and treat any risk factors in order to minimise the risk to the other eye and prevent a further vein occlusion in the affected eye. Treatment of the following risk factors dramatically reduces the risk of a further vein occlusion in both eyes. Without treatment there is a high risk of recurrence causing further damage to the sight of the affected eye and also damaging the sight of the other eye.

- **High blood pressure:** If your blood pressure is higher than 140/80 on several occasions, treatment is normally advisable.
- **Raised blood cholesterol:** Discuss diet modification with your General Practitioner. Treatment with tablets is normally highly effective.
- **Glaucoma:** In this common eye condition, the pressure in the eye is raised. This can cause gradual loss of peripheral vision. It can also increase the risk of another retinal vein occlusion. Treatment with drops to reduce the pressure is normally highly effective at preserving sight and preventing further retinal vein occlusions.
- **Diabetes:** Retinal vein occlusions are more common amongst people with diabetes. Detection of diabetes and good control is essential in order to preserve vision.
- **Smoking:** The more you smoke, the greater the risk of another vein occlusion. Ask your General Practitioner if you need help to stop smoking.
- **Rare blood disorders:** These are normally identified by simple blood tests. In the unlikely event that treatment is required this will be supervised by a specialist in blood disorders.

Treatment of Retinal Vein Occlusion

1. Persistent bruising and swelling (oedema) at the centre of the retina (the macula) is the main cause of permanent loss of central vision. A course of anti-VEGF intravitreal injections or steroids may be sometimes helpful in restoring some central vision. This treatment, if required, is normally recommended

approximately three months after the retinal vein occlusion has occurred.

2. About 30% of patients with retinal vein occlusions develop abnormal blood vessels on either the iris at the front of the eye or on the retinal surface. These abnormal blood vessels can bleed or cause a marked pressure rise in the eye leading to further loss of vision. This can normally be prevented by laser treatment to the retina if required.

The following three procedures are frequently recommended in patients with retinal vein occlusion. Your doctor will explain the reasons for them in more detail.

- **Retinal Photography** is helpful in accurately documenting the degree of retinal damage to allow detection of improvement or deterioration.
- **Flourescein Angiography** is important in determining the need for laser treatment in reducing macular oedema and in preventing loss of vision from bleeding into the eye or raised pressure.
- **Optical Coherence Tomography** measures the amount of bruising and swelling (macular oedema) and assesses the need for and response to laser treatment.

Follow up

- Patients with central retinal vein occlusions are reviewed every six to eight weeks for approximately six months. Recurrence or deterioration is unlikely after this and most patients are discharged after one year.
- Patients with branch retinal vein occlusions are normally reviewed at four to six monthly intervals for about 18 months. Recurrence or deterioration is unlikely after this stage.

What to do if you are concerned about your vision

If your sight deteriorates dramatically, or if your eye becomes painful, please contact:

Emergency Eye Clinic

Monday to Friday 08:30 to 16:00 on **01223 217 778**

(Leave a message with your name, date of birth and hospital number, and a brief description of your concern, and one of the nurses will call you back.)

Out-Of-Hours

Main Hospital Switchboard

01223 245 151 and ask for On-Call Ophthalmologist

You may find the following websites helpful:

www.rcophth.ac.uk

www.rnib.org.uk

www.iga.org.uk

www.macularsociety.org



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Document history

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