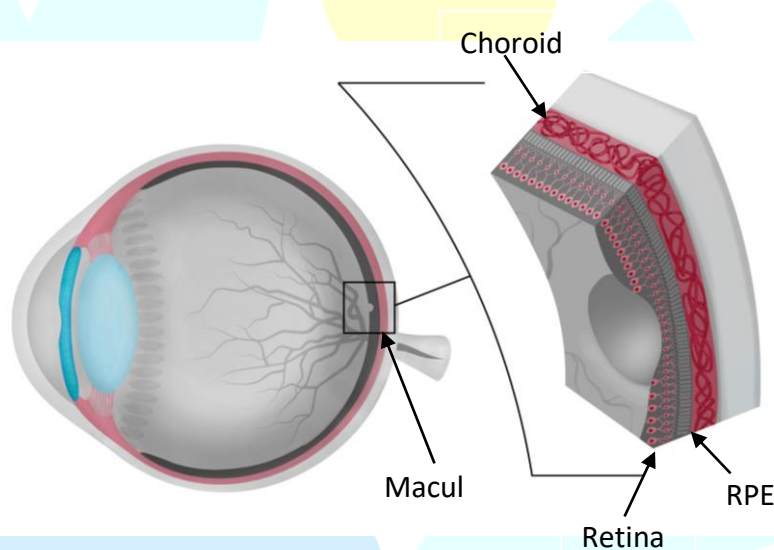


## Central Serous Retinopathy (CSR)

### What is central serous chorioretinopathy?

This diagram shows the different parts of the eye. Note the area for fine detail (the macula).



You have been diagnosed as having central serous chorioretinopathy. This is a condition where fluid builds up under the retina, usually because the deeper blood layer of the eye (the choroid) becomes overactive and the barrier layer (the retinal pigment epithelium RPE) does not function normally. The retina is a light sensitive area at the back of the eye that helps to capture images. The macula is the name given to a sensitive part of the retina that allows us to make out things clearly and see colours. Distortion of vision occurs because the retina is raised.

## What are the risk factors?

This condition usually affects men more than women and commonly between the ages of 20-45 but can happen at older ages too.

The actual means or cause of this condition is not fully understood, but we do know there are several risk factors which are associated with this condition. They include:

- Steroid medication. This could be in any form including tablets, creams, inhalers and nasal sprays
- High stress
- Excess alcohol intake
- Smoking
- High blood pressure
- Shift pattern working
- Pregnancy
- Sleep apnoea
- Autoimmune conditions, particularly if treated with steroid medication
- Kidney disease
- Some other medications people use such as for erectile dysfunction, pseudoephedrine found in nasal sprays and certain chemotherapy drugs

Your clinicians will liaise with your GP to control these risk factors where appropriate. Please note that before stopping any medication you should speak to your GP first.

## What are the signs and symptoms?

You will normally have experienced a painless change in your central vision – for example you may have blurring and distortion in the central part of your vision. Objects may appear smaller; you may become longsighted or more longsighted than before or notice that you have difficulty reading things close to you or in small print.

## Is there anything that can be done?

It is important to note all the risk factors above and control them where possible. Fortunately, in most people, the fluid resolves on its own over several months, often within 6 months, and vision improves to near normal levels.

## What if it doesn't get better on its own?

If the condition does not improve on its own, there is risk that it may continue to affect your vision or lead to long-term damage to the retina, including scarring.

This is more likely if the fluid involves the centre of your vision. In these cases, treatment may be recommended to help protect your sight.

Further tests may be carried out such as special photographic dye tests called fluorescein angiography (FFA) and indocyanine green angiography (ICG). These will pinpoint the site of leakage.

Treatments are not always effective, and your doctor will discuss with you if your eye condition benefits from any form of treatment. Options that will be discussed include:

### **Subthreshold laser treatment**

A mild laser treatment where gentle laser treatment is applied to a large area to stimulate a healing response and fluid removal.

### **Photodynamic therapy**

In photodynamic therapy (PDT), a light-sensitive dye (verteporfin) is injected into your arm. A targeted laser treatment is then used to treat the area of leakage. This is the most evidence-based treatment for persistent or chronic central serous chorioretinopathy in selected patients. However, not everyone with this condition will benefit from this treatment.

Due to limited availability of the medication (Visudyne) and in line with **Royal College of Ophthalmologists (RCOphth) guidance**, PDT is offered only to patients who meet specific clinical criteria. Your doctor will assess whether this treatment is appropriate for your individual situation and will discuss this with you if relevant.

Please note that many patients are managed with observation or other treatments, as most cases improve without the need for PDT.

### **Focal laser treatment**

If the angiography dye test shows a single leaking point that is distant from the centre of the retina, focal argon laser treatment may be performed to the retinal area of leakage to seal it and encourage fluid removal. This type of treatment however can lead to long term complications like abnormal blood vessel formation or scarring, so is only done in specific circumstances.

## Are there any complications of treatment?

The different treatments have different risks and benefits which your doctor can discuss with you. Overall, the aim of treatment is to clear the fluid which should stabilise vision. Improvement in vision after this depends on what existing damage there is. It is possible that the swelling may not resolve or may leave a scar or reveal damaged tissue which limits your sight. The condition may re-occur.

## Where can I go for support?

Henshaws is a charity that can offer support to individuals to cope with the emotional and practical difficulties that central serous chorioretinopathy can bring. Patient Support Officers ensure those recently diagnosed have a better understanding of their eye condition and the support that is available to them such as equipment, services and benefits. Our volunteer help desk and Patient Support Officers are based in the Manchester Royal Eye Hospital five days a week, located outside clinic F.

You don't need to have a referral to access the service – it is open to all. To arrange an appointment or find out more, contact our Patient Support office on (0161) 276 5515.

## Where can I find more information?

RNIB: [www.rnib.org.uk/your-eyes/eye-conditions-az/central-serous-retinopathy-csr](http://www.rnib.org.uk/your-eyes/eye-conditions-az/central-serous-retinopathy-csr)

The Macular Society [www.macularsociety.org/macular-disease/macular-conditions/central-serous-retinopathy](http://www.macularsociety.org/macular-disease/macular-conditions/central-serous-retinopathy)