

Central Serous Chorioretinopathy

Central serous chorioretinopathy (CSCR) causes painless blurring of central vision, primarily in young men ages 20-45. Common symptoms include distortion, color vision changes, micropsia (objects look smaller), and a central blind or gray spot. These symptoms are caused by a blister of fluid that collects under the center of the retina. The retina is the “film” of the eye’s camera and the symptoms are related to the size and duration of the fluid blister. The fluid collection usually resolves spontaneously but may recur in the same or fellow eye months or year later.

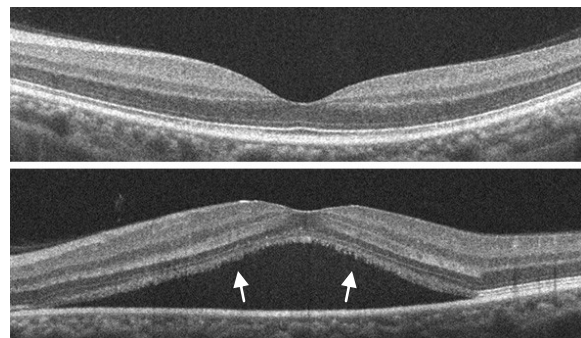
What causes central serous chorioretinopathy?

The exact cause of central serous chorioretinopathy is controversial. Fluid appears to leak from the choroid (a layer of tissue behind the retina) into the space under the retina, but it is unclear whether the underlying problem is in the choroid or the retinal pigment epithelium (RPE), a layer that sits between the retina and the choroid.

In most cases, CSCR is not related to an underlying medical condition or use of medications. Stress and “Type A” personality traits have been associated with CSCR. Steroid use is a common trigger for CSCR, regardless of whether the steroids are taken by mouth, by inhaler, or by topical application. Other associations include organ transplantation, Cushing syndrome, hypertension, systemic lupus erythematosus, pregnancy, and use of some medications.

How is CSCR diagnosed?

The blister of fluid under the retina is usually visible on clinical examination by an eye professional, but additional testing is helpful to confirm the diagnosis (other conditions may also cause fluid collections) and monitor change over time. **Optical coherence tomography (OCT)** is a non-invasive scan of the retina which measures and illustrates the subretinal fluid in cross-section. **Fluorescein angiography** involves a small intravenous injection of dye (fluorescein) followed by a series of photographs of the retina. The images can differentiate between various causes of subretinal fluid and can also identify the precise source of fluid leakage.



▲ Cross-sectional optical coherence tomography (OCT) image of a normal retina without any subretinal fluid (top) compared to a case of central serous chorioretinopathy with fluid under the retina (bottom, white arrows).

BayAreaRetinaAssociates



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▲ Color photographs and fluorescein angiography images showing a blister of subretinal fluid (arrows) with a central source of leakage (central white spot which enlarges into a plume) due to central serous chorioretinopathy.

How is central serous chorioretinopathy treated?

Initially, the pocket of subretinal fluid in CSCR is measured and usually observed, since the fluid reabsorbs spontaneously in the vast majority of cases. If imaging shows improvement, continued observation is usually most appropriate.

In some cases, particularly those in which the fluid fails to reabsorb within three to six months, treatment may be recommended in order to facilitate resolution of the fluid.

Current treatment options include thermal laser, photodynamic therapy and intravitreal injection. **Thermal laser** treats the source of leakage with a “hot” laser, while **photodynamic therapy** treats the source of leakage with a “cold” laser after intravenous injection of a medication called Verteporfin. **Intravitreal injection** involves the injection of a medicine into the eye after numbing drops are given in the office. If treatment is advised, your retina specialist will discuss the various options and make recommendations based on your particular case.



While most cases of CSCR resolve without treatment, and those cases that require treatment tend to resolve as well, it is important to understand that CSCR is often a chronic disease. Repeat episodes are common and may occur in the same eye or the other eye. Even after the fluid reabsorbs, vision may not return to normal due to damage in the retinal tissue. When a trigger such as steroids is identified, avoiding that trigger in the future will help reduce the chance of a recurrence.

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Bay Area Retina Associates is a group practice of retinal surgeons. All members of the group are board certified by the American Academy of Ophthalmology and have completed fellowship training in vitreoretinal surgery. BARA surgeons have expertise in the treatment of retinal detachment, diabetic retinopathy, age-related macular degeneration, macular hole, epiretinal membrane, and retinal vascular disease. BARA physicians see patients in seven offices and perform surgery at several hospitals and surgery centers around the East Bay.