Retina Consultants of Texas

RCA Research

CENTRAL SEROUS CHORIORETINOPATHY (CSC)

What is central serous chorioretinopathy?

Central serous chorioretinopathy (CSC) is a non-infectious, non-inflammatory condition in which fluid accumulates under the retina, which can affect vision.

How CSC affects vision

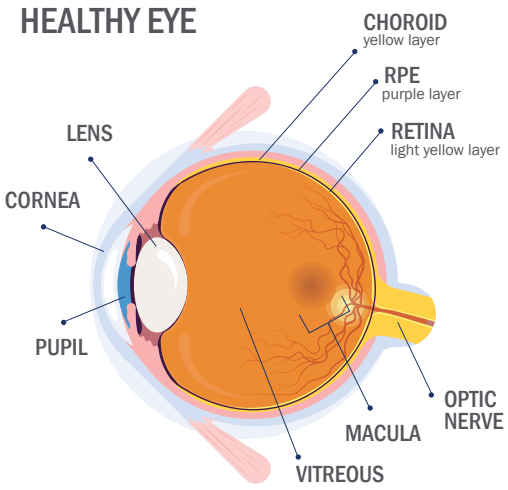
Light enters the eye and is focused onto the **retina**, the light-sensing tissue lining the back of your eye. The information it receives is transmitted through the **optic nerve** to the brain where it is interpreted as the images you see. The **macula** is the part of the retina responsible for sharp, central vision.

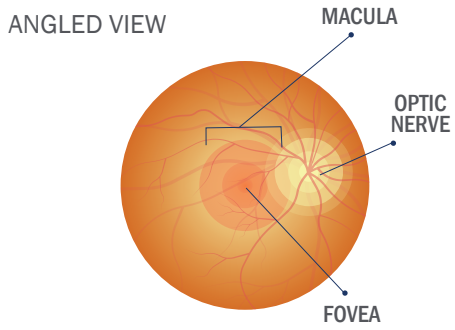
The **retinal pigment epithelium (RPE)** is a layer of cells that supports the overlying photoreceptors, the cells that actually sense the light that enters the eye. Underneath the RPE is the **choroid**—the blood supply that brings nutrients and oxygen to the retina.

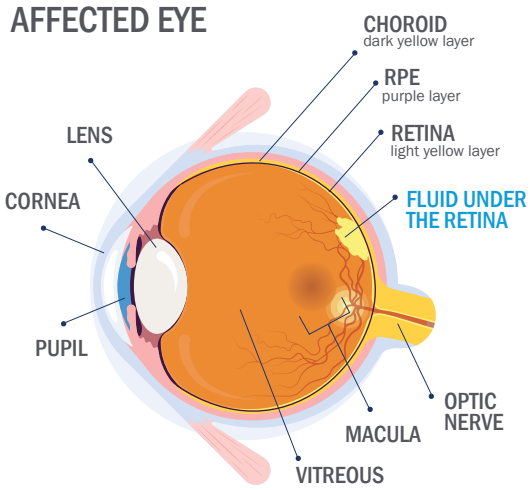
When the RPE doesn't work properly, fluid builds up underneath the retina, resulting in a small detachment. This can cause reduced vision, distortion and/or decreased color saturation. In its most aggressive form, CSC can cause severe loss of central vision. It typically affects only one eye at a time, but can affect both.

Risk factors

CSC can occur at any age, but is most common in those between 20 and 50 years old. Men are affected more commonly than women. Risk factors include the use of cortisone-type medications (steroids—oral, inhaled, injected or even topical), smoking and stress.







Symptoms of CSC

- Blurred vision
- Metamorphopsia (objects appear distorted or crooked)
- Micropsia (objects appear smaller than normal)
- Central scotomas (areas of decreased vision)
- Reduced color vision

Disease course

Approximately 50% of people with CSC will have more than one episode and about 10% will have more than three episodes. In most cases, it will resolve spontaneously within three months, and about 90% of people will maintain relatively good central vision. Some patients will have significant visual effects.

Examination and diagnostic testing

Your ophthalmologist may evaluate your condition using photography, **optical coherence tomography (OCT)**, **fundus autofuorescence (FAF)** or **indocyanine green** and **flourescein angiography (ICGA and FA)** to facilitate diagnosis and treatment. Classic findings of CSC are collections of fluid below the retina and RPE. They might also see retinal atrophy or degeneration, subretinal exudation and scarring, tears in the RPE or the development of choroidal neovascular membranes. In older patient who have other eye issues such as AMD/drusen, or diabetic changes, an FA is a helpful tool to differentiate the cause of the fluid, because the leakage will look different in each disease.

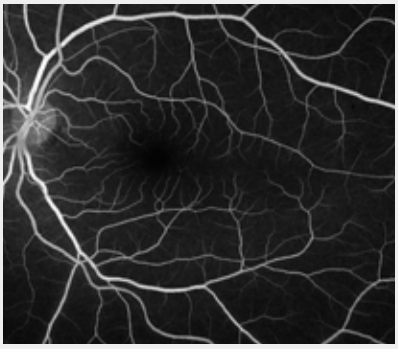
Treating CSC

Patients with CSC should stop smoking, minimize cortisone or steroid use under the guidance of their primary care physician and decrease stress.

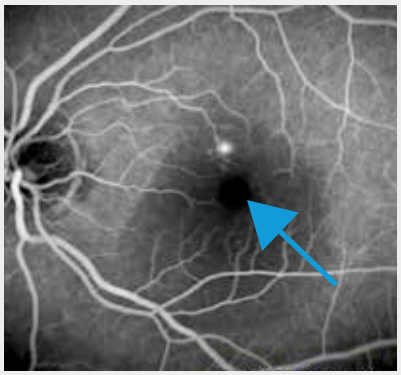
For patients who would like more rapid rehabilitation, or have chronic or severe subretinal fluid, treatment may be necessary. Different types of lasers can be used to try and decrease the fluid. If neovascular membranes develop, you may need injections of medications into your eye to try and stop abnormal blood vessels from developing.

WHAT YOUR DOCTOR SEES

On FA

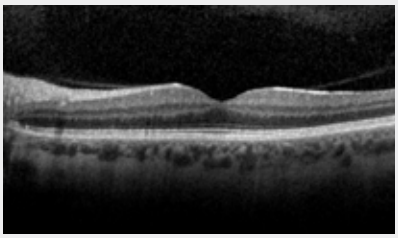


Normal macula

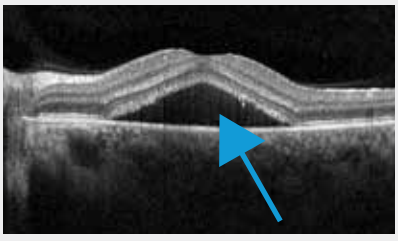


FA showing leakage and fluid pooled under the macula

On OCT



Normal OCT



OCT showing fluid under the retina

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