



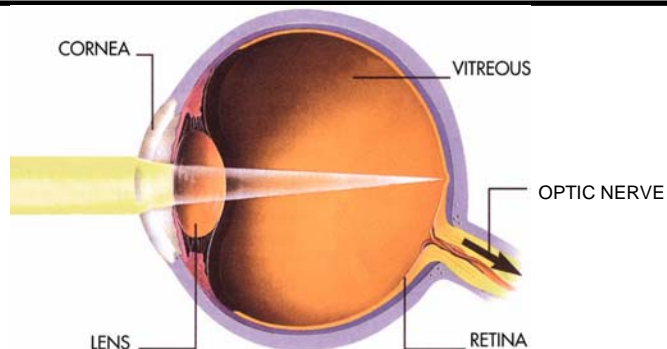
## CENTRAL SEROUS CHORIORETINOPATHY

Central serous chorioretinopathy (CSC) is a cause of painless vision loss in the central field of vision of young men. There may be distortion, color vision changes, objects may look smaller, and a central blind or gray spot. In some people the onset of symptoms may be accompanied or preceded by migraine-like headaches.

In most cases, we wait for spontaneous improvement, with the vast majority of patients (80-90%) returning to 20/25 or better vision.

Patients with classic CSC have a 40-50% risk of recurrence in the same eye. If vision is affected, treatment with laser may improve vision, or reduce the risk of further vision loss.

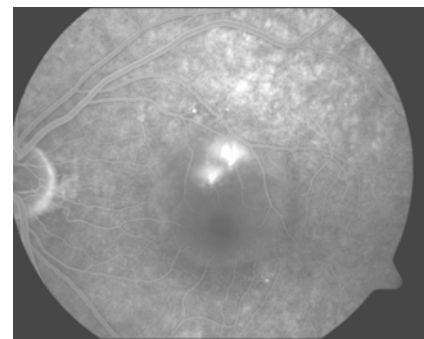
### HOW THE EYE WORKS



The eye works like a camera. The lens and cornea focus light rays. The retina works like the photographic film in a camera.

The retina is transparent. The layer beneath it, the retinal pigment epithelium (RPE) gives the orange color to the inside of the eye. Beneath this is the choroid, a layer of blood vessels which is thought to be the source of fluid under the retina in CSC.

### FLUID UNDER THE CENTRAL RETINA



The hallmark of this condition is fluid under the central retina. This is seen as a leak from one or more spots on a fluorescein angiogram. There

may also be RPE detachments. There may be multiple leaking spots. The other eye will be affected in up to 20% of patients at some point.

### WHO GETS CENTRAL SEROUS CHORIORETINOPATHY?

Traditionally, CSC has been thought of as a disease affecting young, 20- to 45-year-old males. Recently it is diagnosed with increasing frequency among patients over 50. In this age

group, the male to female ratio diminishes to 2:1 from the 10:1 ratio seen in younger patients. CSC is uncommon among African Americans, but frequent in Caucasians, Hispanics and Asians.

## CAUSES OF CENTRAL SEROUS CHORIORETINOPATHY

The exact etiology of central serous chorioretinopathy is highly controversial. There appears to be an imbalance in the amount of fluid which enters the subretinal space and the RPE's ability to remove it. This results in a net accumulation of fluid beneath the retina.

Systemic associations of CSC include organ

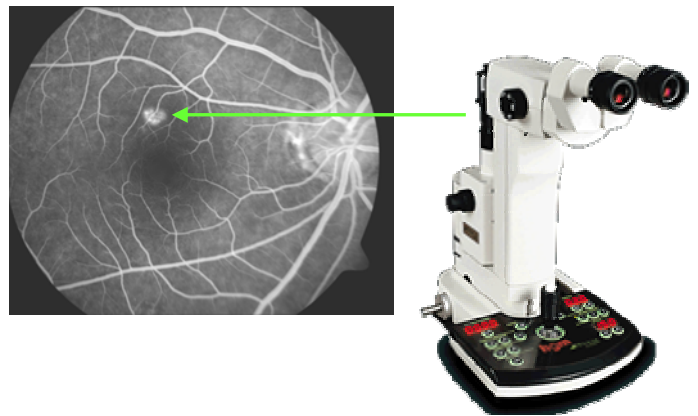
transplantation, exogenous steroid use, endogenous hypercortisolism (Cushing syndrome), systemic hypertension, systemic lupus erythematosus, pregnancy, and use of some medications.

Finally, type A personalities and major stressful events may be associated with CSC, presumably because of elevated blood cortisol and epinephrine.

## LASER TREATMENT FOR CENTRAL SEROUS CHORIORETINOPATHY

Laser photocoagulation is the application of a bright light to the area of leakage to seal the leak spot found on the fluorescein angiogram. Laser treatment shortens the course of the disease and decreases the risk of recurrence for CSC, but it does not appear to improve the final visual prognosis.

Laser photocoagulation should be considered under the following circumstances: (1) persistence of a serous detachment for more than 3-4 months, (2) recurrence in an eye with visual deficit from previous CSC, (3) presence of visual deficits in opposite eye from previous episodes of CSC, and



(4) occupational or other patient need requiring prompt recovery of vision, such as police or pilots.

Laser may be considered in recurrent episodes of serous detachment with a leak located more than 300  $\mu\text{m}$  from the center of the fovea. Each case must be approached individually.

Rarely patients develop choroidal neovascularization at the site of leakage and laser treatment. If laser is performed close to the center of vision, there may be a small blind spot, which most often fades. Despite treatment and reattachment of the retina, vision may not return to normal.

## CENTRAL SEROUS CHORIORETINOPATHY PROGNOSIS

The prognosis for visual recovery in CSC is generally good. Usually, the leaks close spontaneously and the detachment resolves over a period of weeks to months. Most patients (greater than 90%) will

retain vision of 20/30 or better in the affected eye. However, some patients may still note some mild changes in vision such as decreased contrast, mild distortion, and decreased night vision.