

WHAT IS CENTRAL SEROUS CHORIORETINOPATHY?

Central serous chorioretinopathy is a condition in which a small pool of fluid seeps under the central retina (the macula) due to a defect in the normally water-tight layers beneath the retina. Fluid leakage produces a blister-like elevation of the macula (see figure) that alters visual function. Central serous chorioretinopathy most commonly occurs in males in their thirties to fifties.

WHAT CAUSES CENTRAL SEROUS CHORIORETINOPATHY?

The cause of central serous chorioretinopathy is unknown, although the condition is commonly associated with stress, steroid use, or "type A" personalities.

WHAT ARE THE SYMPTOMS OF CENTRAL SEROUS CHORIORETINOPATHY?

The symptoms of an eye affected by central serous chorioretinopathy are blurred or distorted vision, a central gray or dark spot, or diminished color perception. The severity of vision loss can vary widely, but most patients are still able to drive and read.

HOW IS CENTRAL SEROUS CHORIORETINOPATHY DIAGNOSED?

In the acute stages a small detachment of the macula is readily seen. If the blister of fluid is away from the center of the macula there may be no symptoms at all. Signs of previous detachments of the retina can often be detected by the clinician. When the retina is elevated by fluid, it is displaced from its normal source of nutrition. In time, the outer retina may degenerate. Even when the central serous chorioretinopathy resolves, the macula is nevertheless affected by these degenerative changes. Thus, there is a rationale for re-attaching the macula, if possible (see treatment, below). An important part of the diagnosis of central serous chorioretinopathy relies on the fluorescein angiogram. In the typical case, a leak can be identified. This is the hallmark feature of the disorder in its most common form. The leaks will vary, depending on the duration of the detachment and the nature of the fluid.

HOW IS CENTRAL SEROUS CHORIORETINOPATHY TREATED?

Since most cases of central serous chorioretinopathy resolve spontaneously, treatment is infrequently necessary. One known method to reduce the duration of central serous chorioretinopathy is laser photocoagulation. Under fluorescein guidance, the leak can be identified and sealed with laser. A newer laser technique called photodynamic therapy (PDT) involves the use of an FDA approved drug to enhance the effectiveness of the laser with lower energy requirements. Although some ophthalmologists believe laser treatment should be carried out early in the course of the disease, most feel that a conservative approach in management should be entertained for a period of time before instituting treatment. For a leak that is remote to the center of the fovea, it is still reasonable to wait three to four months before considering laser treatment. When the leak is close to the center of the macula (an area called the fovea), laser treatment has the risk of inadvertent damage to the center of the vision. These are rare complications, but there is a certain possibility of a noticeable blind spot in the central visual field corresponding to the treatment site. When considering the potential risks and benefits of laser treatment, the greatest argument for treatment is the possibility of

progressive vision loss from central serous chorioretinopathy. Each case must be approached individually. For example, a patient who has had a previous detachment resulting in scarring of the macula may require earlier treatment of a subsequent leak than a patient whose previous episode resolved without any scarring. The rationale is to reduce the duration of the second detachment to prevent further degeneration.

WHAT IS THE PROGNOSIS FOR MY VISION IF I HAVE CENTRAL SEROUS CHORIORETINOPATHY?

The prognosis for central serous chorioretinopathy is generally very good. Usually, the leaks close spontaneously and the fluid resolves over a period of weeks or months. Over 90% of patients regain 20/30 vision or better. In some, the condition will resolve but leave behind subtle visual imperfections such as distortion, decreased contrast sensitivity, and altered night vision. Although many patients may manifest subtle clinical findings in the opposite eye, most patients (greater than 80%) do not develop bilateral symptoms. In a small minority of patients, central serous chorioretinopathy may become a recurrent problem and result in more profound visual impairment. Reported recurrence rates are 20-30% although we have observed a higher rate among the patients referred to our group, perhaps because we tend to be referred more challenging cases. Weeks, months, or even years later, new detachments may evolve. Each detachment runs the risk of further pigment epithelial and retinal damage. Some patients will experience progressive atrophy of the pigment epithelium and severe vision loss that is permanent. Other patients may develop expanding detachments of the retina as fluid gravitates to detach the bottom part of the retina.

WHAT ARE THE RISK FACTORS THAT PREDISPOSE A PATIENT TO DEVELOP CENTRAL SEROUS CHORIORETINOPATHY?

A recent study identified risk factors for developing central serous chorioretinopathy. These include systemic steroid and immunosuppressant medication use (such as those used to treat or prevent organ transplant rejection) and pregnancy.