

What is convergence insufficiency?

Convergence insufficiency is the inability to maintain binocular function (keeping the two eyes working together) while working at a near distance. Typically, one eye will turn outward (intermittent exotropia) when focusing on a word or object at near.

What are the symptoms resulting from convergence insufficiency?

Symptoms of convergence insufficiency include diplopia (double vision) and headaches when reading. Many patients will complain that they have difficulty concentrating on near work (computer, reading, etc.) and that the written words will move around and become blurry after prolonged periods of reading. Patients may be noted to squint or close one eye when reading. Symptoms can vary with convergence insufficiency and not all symptoms are present in every patient.

Does every patient who meets criteria for convergence insufficiency require treatment?

During a routine eye examination, convergence weakness may be diagnosed even without the above-mentioned symptoms. Some patients test in the office as having poor convergence; however, they are asymptomatic. This may be the result of true convergence weakness, but is often found when the patient is distracted, shy, overly excited or does not understand the directions given. These patients should either be retested at another time or simply watched for symptoms of diplopia or headaches with near work. A patient who is not having difficulty with near tasks but tests positive for convergence insufficiency in the office does not require any treatment but should be followed. Conversely, a child with adequate convergence in the office may occasionally have symptoms at home or school consistent with convergence insufficiency. In these cases, a course of treatment for convergence weakness can be instituted and the child followed for improvement in symptoms.

What is the method of treatment for convergence insufficiency?

Convergence insufficiency can often be treated by practicing convergence through exercises. These exercises may be prescribed. There is also a computer program available which may be used on a home computer to increase convergence ability. The program costs around 100 dollars depending on which program you need. The results of the computer program are often followed by your eye care professional with print outs that can be brought in to the office visit. Important aspects to consider in choosing a treatment regimen are the convenience and expense of treatment as any method chosen tends to be successful if the prescribed regimen is followed. Most studies show that a short course of treatment is usually successful. Prolonged therapy does not show significant advantages and is usually unnecessary.

Can glasses or patching be used to treat convergence insufficiency?

One method of therapy to resolve convergence insufficiency is the use of base-out prisms which force the system to work harder to converge. They are used only during short periods of time while performing therapy as they are very tiring to the eyes. Base-in prisms can be used to artificially align the eyes for reading; however, their use will make it unlikely that the patient will develop stronger convergence on their own.

Is convergence insufficiency permanent?

Patients with convergence insufficiency are often permanently cured after exercises to strengthen their convergence. Continued near work following convergence therapy tends to help maintain adequate convergence once treatment is discontinued. At times, convergence insufficiency symptoms will resurface after illness, lack of sleep or increased near work demands. If treatment had been successful previously, an additional course of treatment tends to be successful at resolving recurrent symptoms.