

A CHILD WITH CONVERGENCE INSUFFICIENCY:

"Johnny, we're almost finished. Just a few more minutes. Johnny, look back down at your book. Let's read one more page, and then we can take a break. What do you mean you feel sleepy? It's not bedtime yet. It's only 4:00 o'clock. Pay attention! I'm only going to say this one more time! Stop being lazy. We've read this word just a few sentences before. If you were paying attention, you wouldn't have missed the same word again. We just went over it. Johnny, stop looking around, and start reading!"



Does homework time in your house sound something like that? It's a common scene in many homes.

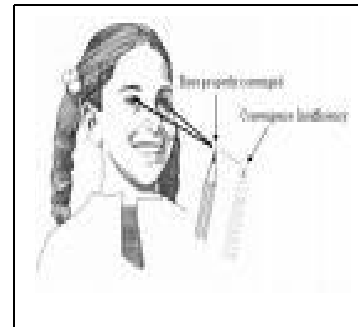
Vision problems can cause severe reading difficulties. One out of four school-aged children suffers from a vision problem great enough to affect academics according to the Vision Council of America. **Ninety-two percent of children with reading dysfunction have a vergence eye problem according to another study.**

This type of school failure that your child is experiencing can be stopped. Many children have benefited from vision therapy, and have seen a marked improvement not only in reading, but in self-esteem and self-confidence as well. I have recently been working with a child who has been experiencing severe difficulties in reading, math, spelling and academics in general. After beginning therapy, he is now voluntarily "reading more second grade chapter books whereas before he wouldn't even pick up a book" according to his mother. This child now also wants to try to solve problems and actually think whereas before he would just throw his hands up in the air at the first sign of difficulty. This child is just one of the many children that I have seen, and that others have seen, improve their reading with vision therapy.

These vision problems and their role in reading and academics are often overlooked because the public does not know enough about it. Convergence insufficiency and other vision problems play a profound role in reading dysfunction for many children.

WHAT ARE THE SYMPTOMS: Patients frequently are teenagers or in early adulthood, complaining of gradually worsening eyestrain, headache, blurred vision after brief periods of reading, and, sometimes, crossed vision (words running together) with near work. It is not unusual for the patient to squint one eye while reading to relieve blurring or strain. Few, if any, symptoms are present when looking at a distance. Symptoms are aggravated by illness, lack of sleep, anxiety, and prolonged near work. Untreated, the beginning problem may break down to a condition that severely disturbs learning. Fortunately, in most cases, convergence insufficiency is very amenable to orthoptics and vision therapy.

WHO HAS CONVERGENCE INSUFFICIENCY: The prevalence of convergence insufficiency has been reported to be approximately 3-5% of the population. Incidence increases with additional near work demand. The disorder is rare in children younger than 10 years; however, the increased visual demands of schoolwork and prolonged periods of reading exacerbate symptoms in older children. Indeed, many patients with this disorder have vocational and/or avocational visual demands that require prolonged close work. The most common presentation encountered by a clinician is that of a high school or college student who develops symptoms when excessive demands are placed on the visual system during extended periods of studying. Lack of sleep, illness, and anxiety are known to aggravate the problem.



Optometric Care

Convergence exercises (ie, orthoptics, vision therapy) and/or base-in prisms are the mainstays of treatment of convergence insufficiency.



- **Computerized Convergence Training.** A series of images displayed on the computer screen allow the patient to interact with images that demand more and more convergence. Little by little, in what can be displayed as a video game, the patient's convergence skill grows. Charts then display to the patient, their daily progress.
- **Other forms of convergence training:** Base-out prism reading and stereogram cards may be used by an orthoptist or a vision therapist to improve convergence. The New, affordable computerized vergence training programs (eg, Computer Orthoptics) are our first choice. These self-paced programs can be used on a personal computer in the patient's home. In addition we are able to monitor progress over the Internet.
- **Base-in prisms for near only:** These prism glasses can be ground into a separate pair of reading glasses, or Fresnel membrane prisms can be fitted over the reading segment of the patient's bifocals. This is a last resort choice only and does not have great success.

HOW HAS OPHTHALMOLOGY VIEWED THIS CONDITION:

In the past, many ophthalmologists considered convergence insufficiency and its associated symptoms to be a neurotic manifestation of non-related psychological problems best dealt with by a psychiatrist. However, it is now clear that convergence insufficiency is a legitimate, problematic binocular dysfunction. The clinician must consider whether the behavioral manifestations displayed by patients really result from the frustration caused by their inability to perform desired near visual tasks.

Last Resort Surgical Care

The decision to proceed with surgery should be made with caution and only after all orthoptic efforts have failed. In fact, we have never recommended surgery for this condition unless it is so severe that they eyes visible turn out and cause untreatable double vision.

Bilateral muscle surgery is usually the surgical operation for this condition. However, the patient should be warned about the possibility of double vision at distance fixation after surgery. This typically resolves within 1-3 months postoperatively. The convergence problem at near usually recurs after several years, although most patients remain asymptomatic because they tend to lose their binocular (two eyed vision) and use one eye only after the surgery.

Dear Abby Article Raises Awareness

The following Dear Abby Column was published on April 17, 2007.

DAUGHTER'S SCHOOL WOES ARE CAUSED BY DISORDER OF SIGHT

DEAR ABBY: Please help me get the word out about a common condition that severely affects children's ability to succeed in school because it inhibits reading, spelling and concentration. My daughter, who was obviously bright, tested at first-grade reading level in fifth grade. She had undergone all the school testing for learning disabilities, plus two days of testing at a respected university hospital. None of these tests or specialists revealed what could be wrong with her.

My child's self-esteem suffered. Her confidence faltered; she began acting out in school. At home she was a great kid, until it came time for schoolwork. Then the battles began. She thought she was dumb. When studying, she could read for only a very short time. She often begged me to read things to her. When working on spelling and assigned to rewrite the words she missed five times, she often recopied them wrong. We thought she just wasn't trying.

After much research on the Internet, I came across a disorder called "convergence insufficiency disorder." This visual condition is the leading cause of eyestrain. Fortunately, we had the opportunity to have her tested at the Mayo Clinic, where her condition was confirmed, and she was successfully treated with vision therapy.



It was as though a miracle had occurred. After six months of treatment, my daughter is almost at her age-appropriate reading level. Her comprehension and retention have markedly increased, and her self-esteem and attitude about reading are much better.

Children with this condition will not benefit from tutoring, special education or extra help from teachers until the condition is diagnosed and treated. My child had 20/20 vision and still had this disorder. It's not routinely checked with eye exams, and schools don't test for it.

I suspect that many children out there are undiagnosed or misdiagnosed and going untreated. The treatment for convergence insufficiency disorder is noninvasive, effective, and much of it can be done at home. Please help me get the word out so other families won't have to go through what we experienced. -- ANGIE W. IN MINNESOTA

DEAR ANGIE: I am pleased to help you get the word out to other families whose children are struggling to learn. After reading your letter, I contacted my experts at the Mayo Clinic in Rochester, Minn., and was informed that this problem, where the eyes drift too much inward (or outward) in attempting to focus, can also be present in adults.

The symptoms can include eyestrain, headaches, blurred vision, sleepiness and trouble retaining information when reading. Other symptoms associated with convergence insufficiency include a "pulling" sensation around the eyes, the rubbing or closing of one eye when reading, words seeming to "jump" or "float" across the page, needing to reread the same line of words, frequent loss of place, general inability to concentrate and short attention span.

The good news is: Vision exercises can fix the problem in most cases, some done at home and some performed in-office with a vision therapist. Prism glasses are another option; however, they are more often prescribed for adults with this disorder than for children.

Dear Abby is written by Abigail Van Buren, also known as Jeanne Phillips, and was founded by her mother, Pauline Phillips. Write Dear Abby at www.DearAbby.com or P.O. Box 69440, Los Angeles, CA 90069

Vision Therapy - Orthoptics

Dr Joseph A. Ross &
Dr Jay S. Desai
Holistic Vision Care
Associates.
20 Milltown Road
Brewster NY 10509

845-279-6179

[Http://www.DrJoeRoss.com](http://www.DrJoeRoss.com)