

















IN HIS EARLY YEARS, IT WAS APPARENT THAT CONRAD JENSEN WAS A VERY BRIGHT CHILD. HE WAS ALSO HAPPY AND EASYGOING, SURE, HE HAD SOME TROUBLE LEARNING TO READ, BUT SO DO A LOT OF 5-YEAR-OLDS. "SO WE JUST FIGURED HE WASN'T DEVELOPMENTALLY READY TO READ." SAYS HIS MOTHER, THERESE HERZOG OF ALTADENA.

In first grade, reading was still a struggle and Conrad was becoming irritable. "He was not a slow learner," says Herzog. "It wasn't making a lot of sense to us." Conrad's secondgrade teacher at Crestview Preparatory School in La Cañada Flintridge suggested he might have vision problems. His eyes seemed fine; he had sailed through his eye-chart exam. But an optometrist discovered he was having problems not detected with this standard test, which evaluates how clearly people see from a distance of 20 feet.

When it comes to seeing things at close range, however, there are several ways in which the eyes and brain need to coordinate. These include several eye movement skills: the smooth movement of eyes along a text (tracking), the ability of both eyes to work together as a synchronized team (teaming) and the focusing and refocusing of the eyes. Also needed are visual processing skills such as eye-hand coordination (visual-motor integration), finding a specific bit of information on a printed page full of text (figure-ground discrimination) and the ability to remember what you've seen (visual memory). "Most of a student's time is spent writing, reading," says Dr. Derek Tong, who heads the Center for Vision Development in Pasadena. "It's all within arm's length" - a lot closer than 20 feet away.

Conrad's optometrist was able to correct his focusing problems and improve his

peripheral vision, which had been so limited he'd avoided playing sports. But when his workload increased in fourth grade, Conrad became overwhelmed, despite herculean perseverance. "He was taking four hours to do homework," Herzog recalls. "He would do it all, but we kept thinking, 'Why is this taking so long?"

The Crestview teacher suggested they visit Dr. Tong, who specializes in behavioral optometry. Behavioral optometrists — also called developmental optometrists — receive additional training in learning-related vision problems and vision therapy to fix them. At Dr. Tong's office, Conrad put on a pair of Visagraph goggles, which use infrared optics to follow and record the eyes as they move. "They showed me his eye movements when he was reading, and I burst into tears," recalls Herzog. "His eyes were not tracking from left to right, then going to the next line; they were jumping back to the same line, to words he'd already read." Conrad's eyes also weren't teaming well. "Essentially, he was speed reading and picking up important words, and his brain had to work so hard to understand what the paragraph was about," Herzog says.

It's not clear why some kids have these problems. "Certainly there are risk factors like head trauma or birth complications," says optometrist Dr. Eric Bosting, "but oftentimes, we can't find an exact reason or etiology."

Some vision problems are thought to stem from missed steps in the development of gross and fine motor skills. The gaps might contribute to eye-hand coordination problems, as well as tracking and teaming issues, which are not uncommon. Dr. Borsting, a researcher and professor at Marshall B. Ketchum University's optometry school in Fullerton, estimates that 10 to 15 percent of children experience some kind of eye coordination problem.

How can you tell if your child is at risk? Some of the signs of vision problems headaches, blurred vision, eye-rubbing or squinting — are obvious. Others are subtler or easy to misdiagnose, such as poor concentration when reading, low reading comprehension, skipping words when reading, poor spelling, sloppy handwriting, trouble learning right and left directions and difficulty with mathematical concepts. (For more signs and symptoms, go to covd.org.)







ISSUU - Arroyo August 2015 by Southland Publishing





Conrad was fortunate that his teacher flagged his vision problem. "Most teachers do not get background on how important vision is to learning," says Bev Ehlers, administrator and spokesperson for San Diego-based Parents Active for Vision Education (PAVE). And vision problems may more often go undiagnosed with boys, according to Trina Morello, a former special education teacher who lives in Temple City and raised four children who needed vision therapy. "[Teachers] say, 'Oh, boys are later readers, boys are later at wanting to draw pictures,' so they excuse all the red flags; they explain it away by saying it's developmental. But I think parents a lot of times just have an instinct — a sense that something is wrong."

Ehlers says she gets a lot of calls from parents of second- and third-graders who seemed proficient earlier but are now struggling. "In kindergarten and even in first grade, the letters are big, the numbers are big and the separation is greater on the page," she explains, "but very quickly the print becomes much smaller and closer together."

And yet it is only recently that growing numbers of parents and health-care practitioners have looked to optometry for answers. That's partly because the field is not widely understood — even by the medical profession — even though optometry has been around for more than a century. "There are tons of studies that have been done [on vision therapy], but they're not very well known," Ehlers says. Among the recent clinical trials: a 2008 National Eye Institute—funded study which found that 75 percent of participants with a type of teaming problem known as convergence insufficiency (CI) were able to improve their vision with a combination of in-office and at-home vision therapy.

But the acceptance of vision therapy has perhaps suffered from a turf war between optometrists and ophthalmologists, who treat eye diseases and correct some eye-teaming problems with surgery. Opthalmologists point out that optometrists are not M.D.s and dispute the efficacy of vision therapy. (Optometrists receive at least four years of post-graduate professional training and earn a doctor of optometry degree.) Even so, Ehlers says, more physicians are "coming to realize that behavioral optometrists have very specialized skills."

In his office on Foothill Boulevard, Dr. Tong deploys a variety of high- and low-tech equipment. A large touch screen runs several programs, including one called rotator, which helps develop eye-tracking and eye-hand coordination. Large blue dots on the screen rotate and beep when the child successfully taps them. Another program trains visual memory by flashing a sequence of letters that need to be remembered when they reappear in a different order.

"So vision therapy is just like physical therapy, especially in teaching the eyes to

coordinate, to process information properly," says Dr. Tong. The optometrist grew up in Canada, where his first jobs included camp counseling and tutoring. "I always enjoyed working with children and seeing how they grow and develop confidence over time," he notes, "so vision therapy, to see the growth and how much better they can do in school, is very rewarding." Dr. Tong's patients — mostly children, but also adults — work with a therapist once a week and practice exercises at home daily for about 20 minutes. A patient might train her eyes to coordinate by focusing them on colored beads on a string (called a Brock String) or practice eye-hand coordination and tracking by taping a series of shapes on paper.

Dr. Tong's waiting room is filled with testimonials from the grateful parents of kids who were falling behind in school and exhausted by their efforts to read and write. Morello says all her kids benefited from vision therapy, but she noticed a "dramatic change" in her third son. Prior to therapy, she had to sit with him at homework time to keep him focused, "because with his frustration, he'd just give up after a very short time," she says.

Dr. Borsting says research by optometrists indicates that visual processing improves for many children when their eye-movement issues are resolved. "If your eyes are more comfortable and moving more efficiently," he explains, "it will make it easier to process visual information."

That's one reason learning specialist Joyce Inouye, founder of the Orange County-based Christian Help In Learning Disabilities Differences (childd.org), frequently recommends that clients start with vision therapy. "What I usually do before I do an attention-deficit diagnostic test," she says, "I say we take care of the physical first — let's do vision, because that may be why he cannot [pay attention], because he is getting tired. He's exerting 50 percent more energy just to see."

Of course, it all starts with the correct diagnosis, and many pediatricians are failing to flag many of these up-close vision problems. Dr. Borsting says pediatricians do refer kids to specialists when the signs, such as headaches, are pretty obvious, but they often miss subtler symptoms and "don't always refer for a comprehensive eye exam." And while psychologists who test kids for learning disabilities screen kids for visual processing problems, testing eye movement requires training in optometry and special equipment, including lenses.

Another hurdle to proper diagnoses: Some children with vision problems are mistaken for kids with ADHD because some of the symptoms can be the same — failing to complete assignments and having trouble concentrating in class. Researchers at UC San Diego's Ratner Children's Eye Center studied children with convergence insufficiency (CI) and

-continued on page 20

issuu.com







ISSUU - Arroyo August 2015 by Southland Publishing





- · Community activities and dinner parties
- · Daily Breakfast and Housekeeping service available
- · Weekly farmer's market and Metro station at your doorstep!
- · Short-term and Fully-furnished units with Paid utilities available

Address: 1000 El Centro St, South Pasadena, CA 91030

Email: info@goldenoaks.biz www.goldenoaks.biz



Vascular Institute of Pasadena

We are the first practice in Southern California to offer the new Venaseal "no pain" vein glue!

Call today for a free consultation.



- Treatment of venous disease
- Endovenous thermal ablation for varicose veins
- · Sclerotherapy of spider veins and reticular veins
- Arterial and venous ultrasound
- Stockings for venous compression
- Venous ulcer treatment

James Lin, Jr., M.D. Diplomate, American Board of Radiology 506 W. Valley Blvd. #300 San Gabriel, CA 91776

Covered by health insurance. Call for a consultation today! 626-593-9393







-continued from page 19

found they were three times as likely to be diagnosed with ADHD as kids without that

Similarly, Dr. Borsting and his colleagues have found that the parents of kids with CI are more likely to report that their child has ADHD-type symptoms than the parents of children with normal vision. What's more, the researchers found that giving the children vision therapy reduced ADHD-type symptoms such as loss of concentration when reading or reading slowly.

That doesn't mean vision therapy cures genuine cases of ADHD. But Dr. Tong says that for kids who have both vision and attention problems - which is not uncommon - it can help. "We isolate and address the vision component, so that the attention symptoms become lessened afterwards," he says.

Optometrists say kids with vision problems can also be misdiagnosed as having dyslexia. But vision therapy does not cure dyslexia, which involves the brain's ability to "sound out" letters. "If you take children who have very severe reading disabilities, then there's usually something more going on," says Dr. Borsting. "There's something in their decoding, their storing of sight words." That "something" won't be fixed by vision therapy.

But when vision therapy is properly administered, the results can be life-changing. Herzog shudders to think about Conrad's life without vision therapy. "I believe he would be struggling still," she says. By sixth grade Conrad had made the honor roll - and he has never left it. He is ranked among the top four students at Saint Francis High School. "His GPA is a 4.3," boasts Herzog. "It's phenomenal what Dr. Tong did for him."



- To find an optometrist specializing in learning-related vision problems, look for one who is a member of the College of Optometrists in Vision Development (COVD).
- Recommended Reading:

The Mislabeled Child: How Understanding Your Child's Unique Learning Style Can Open the Door to Success by Drs. Brock and Fernette Eide (Hachette Books; 2006)

See It. Say It. Do It! The Parent's & Teacher's Action Guide to Creating Successful Students & Confident Kids by Dr. Lynn Hellerstein (HiClear Publishing; 2012)

- · Connect with other parents on Facebook's Vision Therapy Parents Unite page.
- Southern California College of Optometry at Marshall B. Ketchum University in Fullerton is currently enrolling children in its ongoing study on vision and attention problems. Participants receive free treatment. Visit citt-art.com.