ception of herself improved but, it must be added, her reading did not. For that, she needed vision therapy.

What happens in vision therapy? At the outset the patient is made aware of what her eyes are doing wrong and is given a group of individually prescribed exercises to correct the old habits. Nobody is yet quite sure what happens physiologically, but experience has demonstrated in case after case that vision therapy works.

Sarah went to her first therapy session in September and was given a set of daily exercises to do at home. The first week, as she forced muscles to do what they should have been doing automatically, it was uncomfortable. And she was unhappy because a cure didn't occur magically and immediately. But then, in November, Sarah announced with a big grin, "I just read my history homework and I understood it the first time!"

Within the next month Sarah's improvement was obvious to all. She was able to complete her homework without fatigue or frustration. Her comprehension and confidence took quantum leaps. She began to look for books to read for pleasure.

It's a miracle, certainly, but not one that is accomplished without continuing effort. Sarah has been given dozens of different exercises, some of which require her family's help. Some she is still doing; some have been dropped, while others changed as her needs changed.

For instance, she spent many weeks on letter tracking. For this exercise Sarah is given a pageful of made-up, senseless words arranged in lines, as in a book. She is required to track each line with a pencil, circling each letter of the alphabet in order. This is a timed exercise, and week by week the letters get smaller.

Another exercise involves the use of "flippers": two sets of lenses on a single handle. There is a positive set that magnifies print and a negative set that make it look smaller. She reads anything, first through one set of lenses and then through the other, thus training her eyes to focus and refocus without a time lag.

These and other exercises are designed to make Sarah aware of when her eyes are not working together. With a bit of effort she can now make her eyes track as a team. And with daily practice, they are doing this with increasing speed. In the end, coordination that now requires conscious effort will become effortless and automatic.

Detecting Vision Problems

A great many families go from doctor to reading specialist to special tutors and special schools, spending precious time and money in a vain effort to find out why their bright child isn't learning. In most cases these problems can be spotted quite early by those who know the child best: the parents.

What do you look for? "If an otherwise bright and curious child doesn't like to read," says Dr. Flax, "and there are no physical problems, it's probably time for a vision workup."

Signs of Vision Difficulty

- A book held very close to the eyes - only seven or eight inches away
- Pages counted before reading, only shorter pieces considered
- The head moves back and forth while reading, instead of the eyes
- Finger is used to trace lines in book
- Subvocalization during reading - murmuring or silent moving of lips
- Complaints of blurring, double-vision or headaches
- Short attention span while reading; child is quickly fatigued
- Homework takes hours and hours, when it shouldn't
- Child seems to read well enough but recalls only portions or has spotty understanding, whereas, if material is read aloud, child has virtually total recall
- The child is well-coordinated, yet has trouble with ball games (softball, tennis, kickball)
- Schoolwork that depends to a large extent upon reading - history or English - is difficult, while subjects such as math and science are learned easily

Any of the above symptoms could indicate a vision problem. If you have checked two or more, it's time to see a behavioral optometrist who provides, or refers to someone who provides, vision therapy.

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When a Bright Child has Trouble Reading

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By Marcia Kamien

Even children with "perfect eyesight" suffer from vision disorders that thwart their effort to learn and doom them to failure in school. The mother of one such child tells how these all-too-common disorders can be detected and corrected - quickly and forever!

At 12, Sarah was in the eighth grade, a healthy and perceptive girl with an active mind, who could do complicated math problems in her head or discuss the human circulatory system in great detail. Yet her reading was slow, tedious and difficult, and often led to blurred vision and headaches. Homework took hours and was punctuated with cries of "I've read it and read it and I still can't understand it at all!"

Her parents were deeply concerned. Sarah should have been sailing through school. Yet her reports were peppered with such comments as "lacks confidence" and "checks her work compulsively," and her scores in reading comprehension were disturbingly low.

Every possibility was considered. Was Sarah dyslexic? No. She had learned to read with ease. Some sort of brain damage? No. She was well coordinated, with quick responses. Could it be her eyesight? Two thorough eye examinations, two years apart, with two different doctors, resulted in the same verdict: "Perfect eyesight. 20/20. Nothing wrong."

"I knew there was something wrong with my eyes," she explained later. But when they kept saying nothing was wrong, I just figured I must be crazy or dumb. Or both."

Terrific "Sight," Poor Vision

As it turns out, Sarah and the eye doctors each had half the truth. Sarah has 20/20 eyesight, her eyesight is terrific, but her vision is below par. She is one of millions of intelligent, eager-to-learn children - and adults - who suffer from learning-related visual problems that often go undetected for a lifetime.

Sight is being able to see, a function most of us are born with. Vision, however, is the ability to understand what we see, and it is a learned process.

Sarah's problem is that she never learned to use her two eyes simultaneously for more than a brief period of time. When she reads, one eye or the other shuts down so that she misses words, phrases or whole chunks of paragraphs.

Worse, she's not aware of what's happening; she knows only that what she had read doesn't seem to make sense. Also, her eyes don't automatically focus and refocus, so that if she glances away, she's apt to lose her place. Since one eye may be looking at one word while the other eye looks at another, it's no small wonder that she comes to the end of a page feeling frustrated.

Sarah tried hard to keep up with her reading, and that's why she developed headaches and double vision. But, according to Dr. Robert A. Kraskin, a Washington, DC, optometrist specializing in the treatment of these kinds of visual disorders, Sarah is an exception. "Most children don't complain," he states. "When reading comprehension goes down - and this is frequently one of the earliest signs - they simply avoid reading."

Children are clever, and years go by before even the most observant parent becomes aware that a child has, to all intents and purposes, stopped reading. Many kids learn to listen very hard or to ask their friends for help or just to bluff their way along. But for a heartbreaking number of children, the first symptom is underachievement.

Underachievement

Underachievement is a slippery concept. You have the feeling your child isn't doing as well as she/he ought. Maybe it's the teacher. Maybe it's the school. Maybe it's the age, or a stage. Maybe the work is too hard.

Or maybe, this is just your ego speaking. What if this is really the best your child can do and you're simply expecting too much? These doubts keep many a worried parent sitting on the fence, unwilling to make a fuss, waiting to see if next year will be better.

Unfortunately, according to Nathan Flax, O.D., retired chairman of the Vision Training Department at the State University of New York's College of Optometry, there are no simple, routine school tests that will detect such vision problems. Most of us depend upon the results of the typical eye test using the Snellen Chart with its lines of smaller and smaller capital letters. The Snellen Chart was designed to test children's ability to see the blackboard from the back of the room. And that's about all.

What we call "20/20 vision" is a measure of visual acuity: the ability to see small objects. But visual acuity has nothing to do with the ability to learn by reading. As a matter of fact, Dr. William M. Ludlam, former associate professor of Physiological Optics and Optometry at Pacific University's College of Optometry in Oregon, also in charge of learning disabilities clinics in both Portland and Forest Grove, OR, stated that, "Children with problems in the control and coordination of their eyes are often above average in acuity. They'd make great buffalo hunters, but not good students."

We all tend to breath a sigh of relief when our chi
dren learn to read without difficulty. That, we feel, i
that. But Dr. Flax points out, "the visual requirement
for learning how to read are very different from thos
necessary to read long passages of relatively sma
type with good comprehension."

In many cases fourth grade is the year when v
sion difficulties show up, when reading compreher
sion declines and achievement drops. Dr. Kraski
found the peak ages to be between eight and a ha
and eleven; but many children successfully hide the
disability for years. He's had patients who manage
to be honor students right through high school, onl
to find college reading requirements - which are fiv
times greater - beyond them.

Slow Readers' Vision Problems

It is estimated that, nationwide, one of every si
children is two or more grade levels behind in reading
Optometrists find that some 80% of these "slow" reac
ers have difficulty in control and coordination. Parent
and teachers may label them lazy, unmotivated, look
ing for attention, or "not good students." The childre
usually come to the conclusion that they're differer
or dumb, and may become drop-outs - not only fron
school but from a full life, yet 90% of these particula
visual problems can be "cured" - quickly and forever

Miracle of Vision Therapy

A miracle? Not really - although the word miracl
springs to mind after you have seen cures happer
The miracle is worked through vision therapy, and it'
being done by optometrists all across the country. V
sion therapy has been around for many decades an
yet, incredibly, few of us have ever heard of it.

Optometrists who do vision therapy can recite suc
cess story after success story. Dr. Ludlam remem
bered a boy who had gone from doctor to readin
specialist to psychiatrist for many years at enormou
cost, and who was finally helped in just a few month
with vision therapy.

At the vision therapy clinic of the State Universit
of New York's Optometric Center, 1000 patients - th
vast majority youngsters - are treated and trained ev
ery month. My daughter Sarah is one of them.

Her problems, while crippling, were luckily, quit
common and easy to treat. Her "prescription" wa
four months of once-a-week therapy.

In a way, her treatment really began the day of he
examination when Dr. Flax told her something wa
wrong and that it could be remedied. On our wa
home she told me, "At least now when I mess up a
school, I'll know it's not because I'm dumb." Her per