



## Learning Differences and the ADHD Label

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Photograph by Sharon Campshire

"Allergies, low blood sugar, or nutritional deficiencies can trigger the release of certain chemicals throughout a child's body."

Although ADHD typically stands for attention deficit hyperactivity disorder, it could also apply to Allergies, Diet, Hypoglycemia, and Different learning styles. Of all of these, the one I see most consistently in children who have been diagnosed with ADHD is different learning styles. I think this is because the other problems—allergies, blood sugar problems, and diet—may underlie the learning problems.

Allergies, low blood sugar, or nutritional deficiencies can trigger the release of certain chemicals throughout a child's body. These chemicals interfere with the body's ability to lay down the appropriate patterns for learning. They affect the nervous system as well as the immune system. When these chemicals are released, messages are

sent throughout the body. It is a natural, normal process that takes over for the body's protection, and the child has no control over it. In my book, *No More Ritalin: Treating ADHD Without Drugs*,

I delve more deeply into this concept. If these chemicals are constantly being released, they are likely to interfere with the child's ability to send important messages to the nervous system. If this interference occurs frequently, one can see how it could sabotage the child's ability to learn.

It is important to give the child control by calming down the nervous system. We can do this by treating the allergies, the nutritional



deficiencies, and the blood sugar problem. After the nervous system is in control, it is then time to help children learn how to learn the way they will be taught in school. They must also be taught the material they missed while their nervous system was not processing correctly.

### The learning process

We learn through our senses. We receive knowledge from what we see, hear, and touch. We also use both sides of our brain to process information: the left side for logical thinking and the right side for creative thinking. The more we develop all of our learning capabilities, the easier it is to learn.



We each have our own learning style preferences. Recognizing and developing different learning styles in our children can help us give them the tools to learn how to learn.

Many children who have difficulty learning in school have not fully developed all of their learning abilities. The children I see at the Block Center are usually right-brained, which means they use the right side of their brain for learning and processing information more than the left side. Right-brained people tend to be very creative. The children who come to the Block Center also tend to be tactile learners. This means they learn best with their hands. We call these children right-brained tactile-learners, or "RBTL's." RBTL children are often frustrated in school because schools are usually set up to accommodate left-brained (logical thinking), auditory, and visual learners. It can be difficult for RBTL children if the educational system assumes that every child is using the left side of the brain and is an auditory and visual learner.

### How bright children may become

### labeled as learning disabled

Because RBTL children are often very smart, they are generally able to compensate in the early years of school. However, by the fourth or fifth grade, the teacher stands in front of the class, lecturing and writing assignments on the blackboard. Students are expected to take notes and write assignments down correctly. RBTL children have difficulty learning in this classroom setting. Although they see and hear the information, the brain does not process it through the auditory and visual senses as well.

RBTL children are still trying to learn, but because they are tactile learners, they may pick up their pencil and flip it, put their hands in their pockets, or put their hands on the person in front of them. Then they get in trouble, when all they are trying to do is learn the best way they know how, through touch. So even though they are very bright, RBTL children are often labeled as learning disabled or troublemakers. Sometimes they are placed in special classes where they are taught with a smaller group and can get more one-on-one attention. Sometimes, in these special classes, they are even taught to learn through their tactile sense.

### Vision and listening vs. seeing and hearing

When we have our eyesight checked and the doctor says we can see 20/20, that just reflects what we can see at a certain distance. Vision, however, is the way our brain processes and understands the information we see. It is the same when you have your hearing checked. That exam only determines how well you can hear sounds. It does not check how well you process and understand the information you hear. Although RBTL children may see fine and hear fine, the brain of the RBTL child does not process the information very well through the eyes and ears. Instead, the child processes the information best through touch.

Fortunately, many programs are

available to help children develop their ability to process, understand, and mentally organize information. There are listening centers, visual therapy, and sensory integration programs, to name a few. I refer patients to these programs when indicated. Since these programs take many months to complete, I

"Instead of expecting all of us to learn the same way, we should focus on the positive in each individual and help him or her learn whichever way works the best."

also developed a home program called Learn-How-To-Learn that helps children develop some of these skills.

### Helping children live in a three-dimensional world

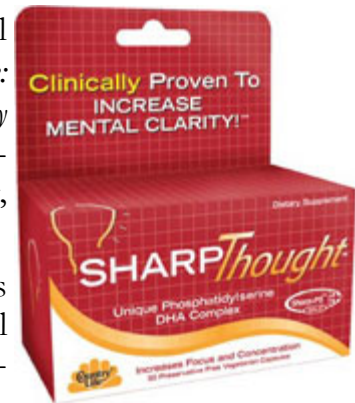
Computers and television are two-dimensional instruments and we live in a three-dimensional world. Although there are many fine learning aids that utilize these two-dimensional modalities, it is important for children to develop their senses in a three-dimensional structure. Because of this need, the developmental learning programs should be designed to improve a child's auditory and visual senses as well as the use of both sides of the brain in a three-dimensional world. This can help a child develop more skills so he or she can succeed in school. They can hear as well as listen (understand or interpret what they hear), and they can see as well as have vision (understand or interpret what they see). These programs should be designed to help children understand and use what they hear, see, and touch.



## Certain nutrients may help the ADHD child

A child with symptoms of attention deficit hyperactivity disorder (ADHD) may benefit from specific nutritional supplements, such as the following:

- **Docosahexaenoic acid (DHA)** is one of the most active of all essential fatty acids, according to *Fats That Can Save Your Life: The Critical Role of Fats and Oils in Health and Disease*, by Robert Erdmann, Ph.D., and Meirion Jones (Port Orchard: Bio-Science, 1990). It is found in fish such as salmon, trout, herring, mackeral, and sardines, as well as marine animals.
- The human brain requires an enormous amount of energy. This requirement is partly fulfilled by the metabolic activity of essential fatty acids such as DHA. For this reason, many experts recommend essential fatty acids for behavioral disorders.
- **Vitamin C** is critical for the production of certain nerve-transmitting sub-stances and hormones. In addition, vitamin C is quickly depleted during times of emotional and physical stress. Children with ADHD face more than their share of stress. Dietary sources of vitamin C include broccoli, brussels sprouts, cabbage, grape-fruit, green peppers, lemons, potatoes, spinach, strawberries, sweet and hot peppers, tangerines, and tomatoes.
- **B vitamins**, especially pantothenate, are depleted from the body at a startling rate during times of stress. They are essential nutrients for nervous system function, and they work best when taken together. Food sources of B vitamins include dark green leafy vegetables, citrus fruits and juices, dried beans, nuts, oatmeal, wheat germ, brewer's yeast, and sunflower seeds.
- **Zinc** is "a very important nutrient for mental health;" states Michael Janson, M.D., in *The Vitamin Revolution in Health Care* (Greenville: Arcadia Press, 1996). Also, if a child is diagnosed with copper toxicity, additional zinc will help. (Copper toxicity has been known to trigger symptoms of ADHD.) Oysters and other seafood, lean meats, whole grains, wheat germ, bran, legumes, nuts and seeds, herring, milk, egg yolks, and liver are all rich in zinc.
- **Magnesium** helps calm and relax all parts of the body. In fact, magnesium deficiency has been implicated in mental confusion, irritability, and predisposition to stress.



Consult with a nutritionally oriented physician to determine appropriate supplementation for your child.

In addition, many children with ADHD symptoms have excessive restless energy. This could be channeled into sports, games, or hiking trips. "It's important to help these children expend their nervous energy into an activity they love to do and can do well." suggests physician and author Ray Sahelian, M.D.

### **Accentuate the positive**

One child came to my office because teachers said he could not pay attention in class. He did have problems getting his assignments and completing his work. Through history taking, I discovered he was a gifted musician. He had taught himself to play the piano and guitar. He could read musical notes and also play by ear. I was very impressed with this young man's talents. However, he did not feel good about himself or his musical abilities. His school focused on what he could not do rather than on what he could do. It made him feel that his musical talents had no value. Because he was not achieving in school, he felt he had no value either.

It amazes me that such a talented and gifted young person would feel this way about himself. It also amazes me that our society puts no importance on his musical ability and focuses instead on what he cannot do. Think about what this young person had learned and could learn through the thing he loved most: music. Music is very mathematical. He could improve his math skills through music. He could learn history and English through music as well. He could relate historic information to the times when certain composers or types of music prevailed. Instead of expecting all of us to learn the same way, we should help each individual learn whichever way works the best.

Here is a boy who had trouble learning the way his teachers were teaching, but could learn to play the piano and guitar by himself. Let's turn this situation around. If someone wanted to learn how to play the piano, we would not just set them down in front of the piano and say,

"play." We would give them lessons and months or perhaps years to become proficient at playing. If they learned to play easily, we would call them "gifted." If, after all that practice time, the person still could not learn to play the piano, we certainly would not call them learning disabled. Why then do we label children as learning disabled when they cannot immediately learn in school, even though we have never taught them how to learn?

### **Tips for parents and teachers**

Because tactile learners sometimes have trouble learning through their auditory and visual senses, they often need tactile stimulation to help them learn through their other senses. This means they may need something to touch while they are looking and listening. I recommend a small, soft, squeezable ball for children to use in the classroom and at home to enhance listening abilities. The child should be allowed to handle the ball or another object with one hand while listening, reading, or writing, whether in school or at home. Invoking the tactile senses while trying to learn may enhance a child's auditory and visual learning. It may also reduce unacceptable, active behavior in the classroom. Many children are doing this now without realizing the reason. A child may twirl her hair or fiddle with his pencil. This act may actually allow the child to pay better attention. If the teacher does not recognize this need, she/he may discipline the child or take away the object she/he is handling. This will make it more difficult for the child to learn.

### **Speak with a gentle touch**

Tactile learners may not hear someone when they call them or talk to them. Call the child's name first to try to get his or her

attention before giving a verbal directive. If you are close to the child, gently touch the shoulder or arm in order to get his or her attention and help "ground" the information. Then give them the directive verbally. These simple tips might ease some of the frustrations that teachers and parents feel when working with children who learn differently.

We need to take the time to teach children how to learn. We must also recognize that we each have our own learning style preferences. If we are not going to use each person's preferred method for teaching them, then we must teach them how to learn in the manner we will be teaching. Ideally, we could start teaching them how to learn in pre-school and complete it in kindergarten. By the first grade, there would be an "even playing field." Of course, if this process is not completed in kindergarten, older children can still learn how to learn. All children can then learn to the best of their abilities. And that allows them to live up to their full potential.