

Diet, Behavior and Cognition

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We all look forward to the summertime, filled with outside activities, fun rituals, and summer foods; all of which brings us back to our youth. In addition to fresh produce, summer eating often means barbecues and picnics, complete with ice cream, cake and other warm weather delights. And, we all tend to indulge. It is part of the summer experience.

However, some of us have family members and children who don't do well with some of these foods. These are individuals who react badly to certain foods; and, the typical American diet can cause allergies, intolerances, food sensitivities, or poor digestion. In addition to these reactions, children who have ADD with or without hyperactivity, developmental delays, or autism spectrum disorders may experience adverse effects on their behavior, concentration, and cognition, which are exacerbated by certain foods.

Now that summer is over and with it all the temptations, back to school can also mean learning about special diets and eating well to avoid problems that effect health, well-being, and school performance. If your child has some of the above issues and you have not yet explored the connection to food they eat, you may want to do some research and decide if this is an area to look at to help your child.

Many parents have discovered profound positive changes in their children when dairy, gluten products, and sugar are eliminated. Avoiding food coloring, preservatives, and additives can make a tremendous difference as well. Some children have severe reactions to MSG, artificial sweeteners and trans fats, which is in much of our fast and processed foods.

Why does food affect behavior and cognition? Simply put, the gut and the brain are intimately related. What we eat contributes to how we act and think, as well as how our immune system works. These realities make diet and nutrition extremely significant factors in how our children learn and develop. Here are some facts to keep in mind:

- No less than 75% of the immune cells of the body are suggested to be found in the Gastrointestinal tract.



Back To School: Looking at our Children's Behavior in the Classroom

Deborah Golden Alecson, M.S.

Summer time, and the living is easy. For many children, it's a time of play and unstructured days. This reprieve from academic demands and social conformity is now officially over. Children are back in school. With this comes a range of feelings from parental relief, to student stress (not to mention the end-of-vacation-blues for educators and school personnel who must face a whole new year of challenges).

For children who are comfortable with change and have positive school experiences, the new school year is met with excitement. For children who are uncomfortable with change and have had troubling school experiences, the new school year is met with anxiety and resistance. If this has become the pattern for your child, year after year, now is the time to look at your child's behaviors.

Behaviors are the result of internal and external stimulation that involve taking in experience, processing that experience, and then responding. There are many reasons why a child reacts with what are considered inappropriate or disruptive behaviors. It is my belief that most of us want to do well in life, fit in, have friends, please others, and feel self-pride. If children exhibit behaviors that are contrary, then there are several areas to examine before we conclude that a child is purposefully engaging in these behaviors or fits into a psychiatric diagnosis.

For younger children, academic readiness requires the ability to sit still; pay attention; facilitate eye-hand coordination to write, manipulate toys, and to copy from the board; and, to block out competing stimuli. The "demands" of elementary school have increased regarding the needed mastery of these "skills." However, many children are just not developmentally ready for the academic curriculum that has been outlined by state education departments that rely on standardized tests to measure achievement. What these children need is more physical activity to activate their proprioceptive and vestibular sensory systems. The ability to experience one's own body in space and in relation to objects and people (proprioception) and the



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For more information, log onto www.berkshirechild.com

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- There are more than one hundred million nerve cells in the human small intestine, roughly equaling that of the spinal cord.
- Within the GI tract (gut) is represented every class of neurotransmitter contained within the brain.
- Some sources say that up to 70% of the body's serotonin is produced in the gut.

More details of the amazing functions of the gut, described as part of our nervous system, can be found in *The Second Brain: Your Gut Has a Mind of its Own* by Michael D. Gershon, M.D. (HarperCollins Publishers, 1998)

Some of the most exciting behavioral and cognitive changes many practitioners have seen have been with the implementation of the Specific Carbohydrate Diet. This diet dates back to the early part of the 20th century and became increasingly popular from the 1920's through the 1950's. For the last 10 to 15 years, it is well regarded in the autism community. It was originally utilized as the treatment of choice for Crohn's Disease, Ulcerative Colitis, Diverticulitis, Celiac Disease, and Chronic diarrhea. The autism community has been reporting the success of this diet for behavioral and cognitive support. This diet has addressed many of the inflammatory issues and gastrointestinal issues common for those diagnosed with autism spectrum disorders and developmental delays. It heals the gut and normalizes the microflora that is so often imbalanced.

What is the specific carbohydrate diet?

A specified way to make homemade yogurt is the hallmark of the diet, along with the avoidance of certain types of carbohydrates called disaccharides (lactose, sucrose, maltose and isomaltose). Lactose is in milk, sucrose is table sugar and maltose is in corn syrup, malted milk, and candies. Many starches when digested are broken down into disaccharides. The goal of the diet is to avoid these foods and to re-introduce good microflora with homemade yogurt that has fermented for 24 hours and has lost its lactose. For more details please refer to Elaine Gottschall's book, *Breaking the Vicious Cycle*. The website by the same name is another good resource, as is www.pecanbread.com. These sites and the book will refer you to other related resources as well.

Highlighted Resources

We will periodically refer you to resources that we feel are exemplary and filled with great information, such as:

www.devdelay.org - **Developmental Delay Resources.**

DDR is dedicated to meeting the needs of children with developmental delays in sensory, motor, language, social, and emotional areas. DDR tracks trends and publicizes research about factors that could put children at risk and is the ONE resource network integrating conventional and alternative approaches for parents and professionals who support children with special needs.

www.hlinfo.com - **Holistic Learning Center.**

www.aane.org - **Asperger's Association of New England**

www.communityresourcesforautism.org - **Community Resources for People with Autism**

This article began with the typical American diet during the summer months and ended with the Specific Carbohydrate Diet. What a contrast! Look at it this way, our children are now back in school to learn new things and we, their parents, caregivers, and others who have an effect on their lives, can also learn new things. There really is a direct connection between the gut and the brain. Practitioners and their patients have observed this time and time again. Children can wake up cognitively and flourish with the right diet and nutrition. It is all a learning process. Bon Appetit!

Back to School

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ability to feel internally balanced and confident with movement (vestibular) may not be fully developed in children who struggle to sit still and concentrate. If these most basic sensory needs are not first addressed, children will display behaviors that can be labeled as ADHD.

I am going to list other factors that can affect a child's behavior in the classroom:

- Visual problems that include far-sighted or near-sightedness or difficulties with tracking.
- Auditory processing deficits that can range from not hearing certain decibels to not being able to separate sounds within a range.
- Sensory integration problems - fluorescent lighting may be over-stimulating as well as the materials hung on the walls and bulletin boards. Outside sounds may be distracting. The child's own clothes may be irritating.



- Diet. A child may not be getting enough nutrients to feed the brain or is eating foods that are causing allergic reactions/opiate like responses, or hypoglycemia.
- Emotional disturbance due to home life. Our economic times, more than ever, are creating more stress among parents and caregivers. Children pick up on the emotions of the adults around them. If the home life is unstable or going through changes, a child will have a difficult time concentrating in school.
- Health issues that can include environmental toxicity, digestive problems, viruses, overgrowth of yeast, and biochemical imbalances.
- Unrealistic demands made by teachers or confusing and disorganized classrooms. When it is not clear what is being asked of students, feelings of insecurity and inadequacy can occur, leading to avoidance or acting-out behaviors.
- Not having their individual needs recognized and met by the significant adults in their lives.

Our children want to do well in school and it is our job as parents, caregivers, and professionals to examine and understand the behaviors that may be getting in the way of success. We must ask if they are developmentally ready for the demands being asked. We must look at their over all mental and physical health. Finally, we must trust that if they are exhibiting behaviors that are problematic, they, more than anyone, want help.