

SOOTHING OVEREXCITABILITIES WITH FOOD

Penelope Heinigk



After picking up my 4-year-old daughter from school, we stopped at the toy store on the way home in order to purchase a present for an upcoming birthday party. I carefully explained to her that we are just buying one item for her friend and that we are not picking out anything for ourselves. She understood and accepted this common practice we have developed regarding the purchase of birthday presents. As we proceeded through the store, my daughter suddenly stopped in the baby aisle, staring at the frog and duck washcloths with tears in her eyes. “They are so cute!” she said. “Yes, they are,” I replied, knowing that this could potentially turn into a difficult situation. “Take a picture of them!” she demanded, knowing that I would definitely not buy them for her. “I don’t have a camera with me.” “Use your phone! Take a picture of them! Please! They are so cute!” I took the picture, which thankfully was enough to head off the impending meltdown, though my daughter remained pensive and struggled to control her emotions.

Characteristics of Overexcitabilities

My daughter, who is identified as highly gifted, often exhibits characteristics of overexcitabilities, or OEs.

First described by Dabrowski in 1964 as types of increased psychic excitability and in 1974 by Piechowski as modes of understanding and responding to the world, OEs serve to more deeply define the intensities so often exhibited by gifted children. The five types of OEs include: the sensual mode, which incorporates the need for sensory contact and sensory stimulation; the intellectual mode, characterized by the need for continuous intense intellectual stimulation; the imaginal mode, or the tendency to create vivid dreams, fantasies, images, and visualizations of experiences; the emotional mode, which concerns attachments and intense feelings; and psychomotor mode, which encompasses movement and the excess of energy. In short, OEs signify a greater capability to respond to stimuli.

The toy store incident exemplifies the emotional OE. Whenever my daughter begins to react strongly to a situation, there are several questions that immediately come to mind. My first thought concerns whether or not she might be tired or hungry, as these two conditions often can prompt overreaction or an irrational response. Then I ask her if she had any treats at school. Through research and experience, I have

found that food is one of the most powerful influences on the mind and body. When optimally fed, the mind and body are free to function at their highest levels. This is not always so easy with the wide array of processed foods devoid of nutrients and full food additives so commonly available.

The Influence of Food Additives

We all know that we should eat a healthy, well-balanced diet, and that such a diet is vital to our growing children. What is blurred, however, are the kinds of food that are portrayed as healthy. There are a great number of foods that masquerade as healthy choices, but actually

are loaded with sugar, prepared with neurotoxic taste enhancers, and preserved with chemicals, which many people react very strongly, oftentimes without even realizing what is causing them to behave so erratically.

Due to gifted childrens' tendency to exhibit OEs, they may be even more at risk to reactions caused by excessive sugar and food additives. One of the greatest and most widespread offenders is monosodium glutamate or MSG. Dubbed an excitotoxin by neuroscientists, MSG is added to most processed foods despite the fact that there is an abundance of scientific evidence that demonstrates its potential to damage children's brains, negatively effect the formation of young nervous systems, create endocrine problems, cause brain tumors, and aggravate or even precipitate neurodegenerative brain diseases such as Parkinson's and Alzheimer's. Russell Blaylock, neurosurgeon and clinical assistant professor at the University of Mississippi Medical Center, explains in *Excitotoxin: The Taste That Kills* that the faulty wiring in the brain caused by exci-

totoxin damage may be an explanation for autism and hyperactive behavior.

MSG is used foremost as a flavor enhancer and works by penetrating the taste bud cells on the tongue and overexciting them, which in turn creates a sensory taste experience. The stimulation of the cells, however, is not limited to the tongue. The effects of the excitotoxins continue on through the bloodstream and can overexcite cells throughout the whole nervous system. It harms nerve cells by causing neurons in the brain to fire uncontrollably, and has the potential to inflict permanent damage. Observable adverse reactions to MSG include skin rash, hyperactivity, tachycardia, migraine headache, depression, obesity, and seizures. In laboratory animals excitotoxin exposure has produced brain lesions and neuroendocrine disorders such as hormonal imbalances and reproductive problems.

Other food additives that commonly cause adverse reactions include artificial colors, artificial flavors, and preservatives such as butylated hydroxytoluene (BHT) and butylated hydroxyanisole (BHA). Documented reactions to such additives date back to the late 1970s begun by Ben Feingold. He began managing the diets of children who had histories of behavioral disturbances in order to reduce unfavorable conduct, emphasizing the elimination of preservatives and artificial ingredients. He found that the negative behaviors of 60 to 70% of the 600 children he treated could be managed with diet alone. Feingold describes several individual cases, one of which concerned a ninth-grade boy with an estimated IQ of 117 who suffered from poor grades, inability to follow instructions, failure to cooperate, and the tendency to wander about the classroom. After two weeks of diet management, the boy became cooperative and performed well in school. A blind challenge with restricted foods resulted in the reversion to the boy's previously disturbed behavior pattern, which persisted for two days until his system was once again devoid of food additives. He remained successful and well behaved so long as he did not deviate from his diet.

Exhibiting OEs alone can cause children to be misidentified. High psychomotor and emotional OE scores in particular may cause a student to be labeled as hyperactive or as having attention deficits (ADHD) and behavior disorders. Children often struggle to react appropriately to their heightened levels of energy and emotional sensitivities. Because gifted children have a tendency to be more responsive to stimuli, they are likely to be even more extreme in their reaction to food additives. In turn, food additives can be detrimental in fostering the potential of gifted children, as it may become more difficult to enhance the positive and compensate for the negative characteristics of their OEs.

Aliases of MSG

These ingrediants contain MSG:

- Hydrolyzed Vegetable
- Protein HVP
- Hydrolyzed Protein
- Plant Protein Extract
- Calcium Caseinate
- Yeast Extract
- Textured Protein
- Autolyzed Yeast
- Yeast Nutrient
- Yeast Food
- Hydrolyzed Oat Flour
- Gelatin

These ingrediants may contain MSG:

- Malt Extract
- Malt Flavoring
- Barley Malt
- Bouillon
- Broth
- Citric Acid
- Stock
- Flavoring
- Natural Flavoring
- Natural Beef or
- Chicken Flavoring
- Seasoning(s)
- Spices

Strategies to Avoid Additives

Working successfully with OEs often involves careful planning and insight to avoid triggers. Food is a vital component in this planning. In order to steer clear of food-related meltdowns and unwarranted hyperactivity, it is necessary to shun high concentrations of starches and sugars, especially on an empty stomach. High fructose corn syrup is a great offender in many unsuspected processed foods. Even natural sugars such as honey and fruit leather can be triggers for irrational behavior. Provide healthy snacks consisting of foods such as yogurt, cheese, nuts, peanut butter, fruits, vegetables, whole grain bread, and crackers. Couple meals containing starches (e.g., noodles, potatoes, rice, bread) with high protein foods (e.g., meat, eggs, tofu) and vegetables to reduce glycemic spikes.

One good way to avoid many food additives, high fructose corn syrup, and pesticides, not to mention help your planet, is to buy organic. Organic food is produced

by farmers emphasizing the use of renewable resources and conservation of soil and water to enhance environmental quality. Natural and organic meats, poultry, eggs, and dairy products come from animals that are given no antibiotics or growth hormones. Organic grains and produce are grown without the use of synthetic pesticides and fertilizers, sewage sludge, bioengineering, or ionizing radiation. Before a product can be labeled organic, a government-approved certifier inspects the farm where the food is grown to make sure the farmer is following all of the rules necessary to meet USDA organic standards. Companies that handle or process organic food before it gets to your local supermarket or restaurant must be certified as well.

Be wary, however, of organic processed foods. Just because a product is organic, does not mean that it does not contain MSG. Although an organic product will most likely not list MSG in the ingredients, it may contain hydrolyzed protein, spices, natural flavors, or another MSG alias. The most important thing you can do to protect your children from harmful food chemicals is to become an avid label reader. You will be amazed at the ingredients you find that have nothing to do with real food, many of which have been proven to be harmful in a variety of ways.

Steer clear of products with MSG, artificial colors, and artificial flavors. As you become more additive savvy, you may want to expand your list of chemicals to eschew. It isn't necessary to carry around a list of food additives, however. Here is a good rule of thumb to follow: If a product contains ingredients with long names that you cannot easily pronounce, it is likely best avoided. Gravitate towards natural, whole foods. The more foods are processed, the more likely they are to have additives in them. Eating healthy is a lifestyle. It takes a concentrated effort, especially with today's typically hectic routine and abundance of junk and fast foods. This effort is very rewarding, especially when we see that the results of our efforts benefit our children in all their complexities.

References

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- Feingold, B. F. (1979). Dietary management of juvenile delinquency. *International Journal of Offender Therapy and Comparative Criminology*, 23, 73–84.
- Sargent, D., & Evans, K. (1999). *Hard to swallow: The truth about food additives*. Burnaby, BC, Canada: Alive Books.
- Simontacci, C. (2000). *The crazy makers: How the food industry is destroying our brains and harming our children*. New York: Penguin Putnam.



An Interview With . . . cont. from p. 8

Do you keep track of your graduates and what do the vast majority of them do?

We haven't had any students graduate from the Academy to date. We expect two students will graduate in 2008.

Do you deal with underachievement issues, and how do you determine if a child is underachieving?

Our weekly guidance meetings assist us in identifying students who may be struggling in some aspect of their experience here. These meetings, as well as frequent interactions with the students in general, allow our staff to recognize and understand the difference between challenging situations that are developmentally appropriate and healthy versus those that may indicate the student needs additional assistance. It's a very individualized issue that we do our best to address at that level.

Do you have an overarching theme in terms of the academic program?

Our primary goal is to individualize education for our students. We have not perfected this system as of yet, but strive daily to meet this goal. If we can figure out how to best serve these students by individualizing education, we hope that other people can one day take our model and implement it in schools throughout the nation for all students, not just gifted students.

Do you have a Web site where parents can get more information?

Yes, <http://www.DavidsonAcademy.UNR.edu>.

Is there anything else that you would like to share?

We have 45 students this school year—more than half of these families have moved to Reno so their student could attend The Davidson Academy. We welcome these families and are happy to have these students, but we hope that one day schools across our country will serve profoundly gifted young people by being flexible and open-minded in terms of making various cost-effective options available to them—such as grade and subject acceleration, dual enrollment, classroom differentiation, and ability grouping.

Author's Note

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Tieso, C. L. (2007). Patterns of overexcitabilities in identified gifted students and their parents: A hierarchical model. *Gifted Child Quarterly*, 51, 11–22.

Resources

Books

- Fallon, S. (2003). *Nourishing traditions*. Washington, DC: New Trends Publishing.
- Fuhrman, J. (2006). *Disease-proof your child: Feeding your kids right*. New York: St. Martins Griffin.
- Magaziner, A. (2003). *Chemical-free kids: How to safeguard your child's diet and environment*. New York: Kensington.
- Null, G. (2000). *The food-mood-body connection: Nutrition-based and environmental approaches to mental health and physical well being*. New York: Seven Stories Press.
- Sears, W., & Sears, M. (1999). *The family nutrition book: Everything you need to know about feeding your children from birth through adolescence*. Boston: Little Brown Co..
- Yaron, R. (1998). *Super baby food: Absolutely everything you need to know about feeding your baby and toddler from starting solid foods to age three*. Archbald, PA: F. J. Roberts.

Web Sites

- Food Additives (Center for Science in the Public Interest)**
<http://www.cspinet.org/reports/chemcuisine.htm>
- Organic Food Standards and Labels: The Facts**
<http://www.ams.usda.gov/nop/Consumers/brochure.html>
- Holistic Moms Network**
<http://home.homewebs.com/holisticmoms>
- Dangers of MSG**
<http://www.truthinlabeling.org>
- Ask Dr. Sears**
<http://www.askdrsears.com>
- Dr. Joseph Mercola**
<http://www.mercola.com>
- Dr. Andrew Weil**
<http://www.drweil.com>

Author's Note

Penelope Heinigk, Ph.D., received her doctoral degree from the University of Oregon. She has taught language arts to gifted seventh and eighth graders in Jefferson County, CO. Currently, she is a gifted and talented resource consultant for the Jefferson County School District and the mother of a gifted 4-year-old.