

SCIENTIFIC SUPPORT FOR THE FEINGOLD® DIET

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Artificial food coloring affects EEG power and ADHD symptoms in college students with ADHD: A pilot study, Kirkland et.al., *Nutritional Neuroscience*, 2020

“This is the first study to test the effects of AFC (artificial colors) in young adults...this study uses the largest dose (225 mg) of combined AFC to date, an amount that is still physiologically appropriate and able to be consumed by an adult while eating normal food products.”

Federal labeling requirement may explain lower autistic and ADHD prevalence in the United Kingdom, Dufault, *Integrated Food, Nutrition and Metabolism*, 2018

The prevalence of autism is 11 children per thousand in the United States, while it is only 4 per thousand in the U.K. In the U.S. 9.4% of children have an ADHD diagnosis but in the U.K. it is just 1.5%. The author credits the European law that requires warning labels required on foods with certain dyes, enabling parents to avoid them.

The Mediterranean Diet and ADHD in Children and Adolescents, Rios-Hernandez, *Pediatrics*, Jan 30, 2017

Children in Spain who consume sugary (and additive-laden) food over the traditional healthy diet are more likely to show ADHD symptoms.

The effect of dietary education on ADHD, a randomized controlled clinical trial, Ghanizadeh, *Annals of General Psychiatry*, March 2015

The study found a “significant relationship” between a healthier diet and measurement of attention in children with ADHD.

Nutrition, immunological mechanisms and dietary immunomodulation in ADHD, Verlaet, *European Child and Adolescent Psychiatry*, July 2014

The author describes diet as a “safe and low-cost ADHD therapy.”

The influence of components of diet on the symptoms of ADHD in children, Konikowska, *Roczniki Panstwowego*, 2012

“Results of food research suggest that food additives and salicylates may aggravate hyperactive behavior [in] children.”

Effects of a restricted elimination diet on the behaviour of children with attention-deficit hyperactive disorder: a randomized controlled trial study, Pessler, *The Lancet*, Feb 2011

“...dietary intervention is the standard care for all children with ADHD.”

The Potential Health Hazard of Tartrazine and Levels of Hyperactivity, Anxiety-Like Symptoms, Depression and Anti-social Behaviour in Rats, Kamel MM, El-Iethy HS, *Journal of American Science*, 2011; 7 (6)

“This study provides sufficient evidence that a causal link truly exists between tartrazine [yellow dye No. 5] and inflection of hyperactivity, anxiety and depression-like behaviours in rats, and points to the hazardous impact of tartrazine on public health.”

Cytogenetic evaluation and DNA interaction studies of the food colorants amaranth, erythrosine and tartrazine, Mpountoukas P, et al. *Food and Chemistry Toxicology*, 2010

“Our results indicate that these food colorants had a toxic potential to human lymphocytes in vitro and it seems that they bind directly to the DNA.”

From the website of the American Academy of Family Physicians: “Studies have shown that certain food colorings and preservatives may cause or worsen hyperactive behavior in some children.”

British Medical Journal May 2008: In an editorial, Andrew Kemp, MD, professor of pediatrics at the University of Sydney writes, “In view of the relatively harmless intervention of eliminating colorings and preservatives, and the large number of children taking drugs for hyperactivity, it might be proposed that an appropriately supervised and evaluated trial of eliminating colorings and preservatives should be part of standard treatment for children.”

AAP Grand Rounds, February 2008, published by the American Academy of Pediatrics.

“...a trial of preservative-free food coloring-free diet is a reasonable intervention.”

“Thus, the overall findings of the [McCann] study are clear and require that even we skeptics, who have long doubted parental claims of the effects of various foods on the behavior of their children, admit that we might have been wrong.”

Food Additives and hyperactive behavior in 3-year-old and 8/9-year-old children in the community; a randomized, double-blinded, placebo-controlled trial. McCann et al., *Lancet* 2007 Nov 3;370(9598): 1560-7

“Artificial colours or a sodium benzoate preservative (or both) in the diet result in increased hyperactivity in 3-year-old and 8/9-year-old children in the general population.”

Synergistic Interaction Between Commonly Used Food Additives in a Developmental Neurotoxicity Test. Lau K, et al. *Toxicological Sciences*. 2006 Mar;90(1): 178-87

Testing the amount of additives often found in snack foods, Lau combined Blue 1 and MSG, and Yellow 10 and aspartame. The combinations were synergistic, far more toxic than expected by adding up the effects of each one tested alone. Blue 1+ MSG was 4 times as toxic and Yellow 10 + aspartame was 7 times as toxic.

Do Artificial Food Colors Promote Hyperactivity in Children with Hyperactive Syndromes? A Meta-Analysis of Double-Blinded Placebo-Controlled Trials. David W. Schab, MD., MPH, Nhi-ha T. Trinh, MD, MPH, *The Journal of Developmental & Behavioral Pediatrics*, December 2004, 25:6.

“...this study is consistent with accumulating evidence that neurobehavioral toxicity may characterize a variety of widely distributed chemicals.”

The Effects of a Double Blind Placebo Controlled Artificial Food Colourings and Benzoate Preservatives Challenge on Hyperactivity in a General Population Sample of Pre-school Children. B. Bateman, et. al., *Archives of Disease in Childhood* 89: 506-511, June 2004

“There is a general adverse effect of artificial food colouring and benzoate preservatives on the behaviour of 3-year-old children which is detectable by parents but not by simple clinic assessment.

Favorable effect of a standard elimination diet on the behavior of young children with attention deficit hyperactivity disorder (ADHD): a pilot study. L. Pelsser et al., *Ned Tijdschr Geneesk* 146(52); 2543-7, Dec 2002

25 of 40 children (62%) who met the DSM-IV criteria for ADHD showed an improvement in behavior of at least 50% after two weeks on a standard elimination diet, according to parent ratings using the 10-item Conners list, the ADHD Rating Scale, and a physical complaint. Among the children with both parent and teacher ratings, 10 of 15 (68%) improved both at home and at school. “In young children with ADHD, an elimination diet can lead to a statistically significant decrease in symptoms.”

Synthetic Food Coloring and Behavior: A Dose Response Effect in a Double-Blind, Placebo-Controlled, Repeated-Measures Study. K.S. Rowe, K.J. Rowe, *Journal of Pediatrics* Nov 1994, 135:691-8

150 to 200 children (75%) improved on an open trial of a diet free of synthetic food coloring, and 63% of them responded to a single-item challenge of tartrazine [FD&C Yellow #5 dye]. In the double-blind portion, the study identified 24 children as clear reactors, including 19 of the 23 “suspected reactors” (82.5%). When they reacted to the dye, the younger children had “constant crying, tantrums, irritability, restlessness, and severe sleep disturbances,” and were described as “disruptive,” “easily distracted and excited” and “out of control.”

Food Additives are Common Causes of the Attention Deficit Hyperactive Disorder in Children, M. Boris, F. Mandel, *Annals of Allergy* 72:462-8, May 1994

73% of the children responded favorably. “The study demonstrates a beneficial effect of eliminating reactive foods and artificial colors in children with ADHD. Dietary factors may play a significant role in the etiology of the majority of children with ADHD...In summary, this double-blind, placebo controlled food challenge supports the role of dietary factors in ADHD.

Through a simple elimination diet symptom can be controlled...Elimination of the causes of ADHD is preferable to the pharmacology therapy of this condition.