

**HEALTHY MINDS**  
**A WEEKLY COLUMN ALL ABOUT MENTAL WELLNESS**  
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**Attention Deficit Hyperactivity Disorder (ADHD)**

**Part IV: The Causes of ADHD symptoms, and some disorders that often co-exist with ADHD**



Before we discuss some of the alternative treatments for ADHD, let us examine some of the known causes. An ounce of prevention is worth a pound of cure, and perhaps we can avoid or lessen the symptoms of ADHD. We shall also examine disorders often occurring with ADHD.

ADHD symptoms do NOT arise from the way you parent your child, or other social factors (although these factors can make a difference after the fact), so you must not blame yourself. The disposition for ADHD may be genetically transferred (passed on from generation to generation) or may be to defects in the nervous system, or due to other biological or nutritional factors (neurobiological). Understanding the nature of the illness is a first step towards improving the situation. Some scientific theories still accepted as possible include the following:

**ENVIRONMENTAL FACTORS:** Some studies have shown a possible connection between ADHD and smoking cigarettes or drinking alcohol during pregnancy, thus it is best to refrain from both. Another is lead poisoning found in paint in old buildings, even where the lead paint has been covered by non-toxic paint. It has also been found this year on painted toys imported from China.

**TRAUMATIC BRAIN INJURY** has been found to be a very small factor in producing ADHD type symptoms, but it is a minor factor at best.

**SUGAR and FOOD ADDITIVES** may be a factor in a small amount of cases, but no definitive proof has been shown. However, sugar does give a short burst of activity to many children, followed by a letdown when they become tired. Additives such as aspartame and MSG (monosodium glutamate) excite the nervous system (neuroexcitants).

Aspartame is the common artificial sweetening agent found not only in diet foods and in restaurants in little blue packets, but in most chewing gum (even the regular kind), and lots of other food where it is added to sweeten food because it costs less than sugar. However many studies have shown it to be dangerous and should be avoided if you have any doubts. (I won't ever use it!)

MSG is harder to detect in food labels because our "friends" at the Food and Drug Administration (FDA) allow manufacturers to dilute it to 99% of the strength and call it something else, besides monosodium glutamate, such as: Hydrolyzed protein, Autolyzed yeast, Yeast extract, Yeast nutrient, Yeast food, Hydrolyzed oat flour, Textured protein,

Sodium caseinate (often, but not always hydrolyzed protein), Calcium caseinate (often, but not always hydrolyzed protein), Maltodextrin, Malt extract, Malt flavoring, Flavoring(s), Natural flavoring(s), Natural beef flavoring, Natural chicken flavoring, Natural pork flavoring, "Seasonings", and/or "Spices". Whatever it is labeled, MSG excites the nerves and excites the appetite. It is in all kinds of junk food, including chips. Since it excites your nervous system and your appetite, of course "You can't eat just one!".

GENETICS is a factor, for ADHD symptoms do run in families, making these symptoms 5 times more likely in ADHD vulnerable families. There is actually an organization called the ADHD Molecular Genetics Network sharing data on their genetic findings.

OTHER RECENT FINDINGS come from National Institutes of Mental Health researchers who have studied the brains of children with and without ADHD symptoms (about 150 of each), using MRI (magnetic resonance imaging), PET (positron emission tomography) and SPECT (single photon emission computed tomography). They have found that the brains of the disordered children are 3 to 4% smaller in all regions studied (frontal lobes of the cerebrum, the cerebellum, and of their connectors). However, this is not a diagnostic tool.

Most often, children with ADHD symptoms suffer from those symptoms alone, but this is not always the case. There are some other disorders that sometimes accompany children with ADHD symptoms, which I will mention below.

LEARNING DISABILITIES are found in about 20-30% of children with ADHD, including dyslexia, reading disabilities, the inability to understand certain sounds or words, writing disorders, spelling disorders, and arithmetic disorders.

TOURETTE SYNDROME include nervous tics, facial twitches or grimaces of a repeated manner, or frequent throat clearing, snorting, or even barking out words. It is not a common disorder, but is often associated with ADHD and can be controlled with medication.

OPPOSITIONAL DEFIANT DISORDER (ODD) affects one third to one half of ADHD diagnosed children – mostly boys. They become hard to control, argue, and have temper fits; they refuse to obey and quite defiant.

CONDUCT DISORDER (CD) affects one or two in five children diagnosed with ADHD and is a more serious anti-social behavior than ODD, manifesting in lying, stealing bullying, fighting, and can include criminal behavior such as vandalism, carrying weapons, abusing drugs, breaking into homes and stores, and using violence against humans or animals. These children need help right away.

ANXIETY AND DEPRESSION often occurs with ADHD symptoms, and if recognized and dealt with will help the child handle the ADHD as well. On the other hand, treating

the ADHD can also lessen the anxiety and depression, and this can have a positive outcome on school performance.

BIPOLAR DISORDER, formerly called manic-depression, can be confused with ADHD in childhood because of similar symptoms such as a reduced need to sleep or a high level of energy that needs to be burned. However the chronic cycling between depression, elation, and irritability (and particularly the elated mood) is often characteristic of bipolar disorder.

**TIP OF THE WEEK:** There are new computer programs that therapists can use when counseling outpatient substance abusers; it delivers a form of psychotherapy called cognitive-behavior therapy which has been shown to reduce the use of abused substances when used in conjunction with standard outpatient treatment.