Attention Deficit Disorder

By Dr. Deborah Ardolf

A young mother has just returned from parent teacher conferences and is not pleased with the report she received. Her 8 year old son's teacher thinks her son has Attention Deficit Disorder (ADD) of the hyperactive type (ADHD). She thought he was a healthy, active, curious boy, just a normal kid. The teacher wants her to consider putting him on medication to help him focus. The mother thinks this may be a bit drastic but what else can she do?

ADHD has become one of the most commonly diagnosed disorders of childhood. Some clinicians and parents feel that the condition has become overly diagnosed in part because of the difficulties encountered by teachers with large class sizes. It has become the umbrella term used to describe children who are inattentive, impulsive, easily distracted, and/or not able to sit still. ADD has a similar presentation to (ADHD) without the hyperactivity. The child is generally inattentive, lacks co-ordination and experiences learning difficulties.

Yet in order to correctly diagnose ADD or ADHD, the physician needs to turn to the American Psychiatric Association, Diagnostic and Statistical Manual for Mental Disorders IV (DSM4) for the correct definition and rule out any other medical or psychiatric causes for these behaviors. The disorder known as ADHD actually has several different types including: (1) predominantly inattentive; (2) predominantly impulsive or (3) combined. Individuals with this condition usually have many (but not all) of the following symptoms:

Inattention:

- often fails to finish what he starts
- doesn't seem to listen
- easily distracted
- has difficulty concentration or paying attention
- doesn't stick with a play activity

Impulsivity:

- often acts without thinking & later feels sorry
- shifts excessively from one activity to another
- has difficulty organizing work
- needs a lot of supervision
- speaks out loud in class
- doesn't wait to take turns in games or groups

Hyperactivity:

- runs about or climbs on things excessively
- can't sit still and is fidgety
- has difficulty staying in his seat and bothers classmates
- excessive activity during sleep
- always on the "go" and acts as if "driven"

Emotional Instability:

- angry outbursts
- social loner
- blames others for problems
- fights with others quickly
- very sensitive to criticism

True ADHD usually appears at school age. Some very impulsive children can be diagnosed as early as 2 or 3 years of age. Another group appears to develop more severe symptoms around the fourth grade. These children may have always had ADHD but were able to compensate for the condition. As school requires more work and more organization skills, these children may reach a point where they become unable to compensate and exhibit "full blown" ADHD symptoms. Some children may remain undiagnosed until they are in their teens.

Not too long ago, the cause of ADD/ADHD was thought to be due to poor parenting. This is no longer believed to be the case. The disorder may be either inherited (70%) or acquired (30%). Most commonly, evidence has pointed to the symptoms being caused by neurological dysfunctions within the brain which are passed on from one generation to the next. Several studies using PET scans have confirmed that there is a definite difference in brain functioning between a group of individuals diagnosed with ADHD and those without it.

ADHD may be acquired through various conditions that cause insult (damage) to the brain. During pregnancy and delivery these include the use of drugs, smoking, exposure to toxic substances, infectious diseases, overexposure to radiation, premature birth, and/or a complicated delivery. After birth these include meningitis, encephalitis, seizures from fever, head injury and lead toxicity.

As the world we live in becomes more polluted by pesticides, herbicides, electronics, radiation, while more and more food substances are created in laboratories by scientists instead of Mother Earth, the incidence of ADD/ADHD has steadily increased to approximately 2 million children in the United States alone.

Conventional Medical Treatment

Children are usually prescribed one of the following drugs which are mostly in the stimulant class of medications. This seems contradictory, as these children need to be calmed, not made to be more hyperactive. However, these drugs are used because it was discovered; they have a paradoxical effect on the child which often calms children down enough to be able to remain focused and attentive for a “normal” length of time. The most commonly prescribed stimulant with over a million prescribed worldwide is**:**

- **Ritalin (Methylphenidate).** Commonly used for narcolepsy, a sleep disorder, this medication has become the main stay of conventional drug therapy. The problem is that Ritalin has been found to be addictive. Some children have a difficult time being removed from the drug upon completion of high school or college often resorting to other drugs to fill the craving the removed drug left behind.

Other drugs which maybe prescribed include:

- **Pemoline (Cylert):** Another central nervous system stimulant that is often prescribed for hyperactivity by enhancement of nerve impulse transmission in the brain. A common side effect is insomnia. Often the physician will prescribe the drug to be given at least six hours before bedtime. It is not recommended for children under six years of age.

- **Dextroamphetamine (Dexedrine):** Another stimulant prescribed for hyperactivity which has the same paradoxical calming effect and similar side effects as Ritalin.
- **Tricyclic antidepressant drugs, such as desipramine or nortriptyline (Pamelor):** Are less frequently prescribed and used mainly when an underlying depression is suspected.
- **Thiordazine (Mellaril):** Is a major tranquilizer that may be resorted to if a child is extremely aggressive, and then only in the most difficult situations.

Naturopathic Treatment

The naturopathic medical approach is to first rule out any underlying etiology for the inattentiveness and hyperactivity. Often some simple diet changes are all that is needed. Treatment of ADHD with natural medicine, including nutrition, dietary and lifestyle advice is designed to get to the root cause of the problem. This effectively enables the body and brain to re-balance itself. Simply medicating the child's symptoms with drugs provides no real benefit in the long run for children with ADHD as they are 10 times more likely to become addicted to illicit drugs in their teen years and adult life.

Some of the common underlying etiologies for seemingly hyperactive and inattentive behavior are:

Food allergies- The normal body response to an allergen is to release massive amounts of histamine. An excessive amount of histamine in the body has a stimulating, irritating effect on the body and mind. The normal body response is then to release chemicals that counter the effects of histamine which causes lethargy. If you see your child being extremely lethargic for no known reason and later in the day to not be able to sit still, the child's body maybe responding to an allergen or erratic sugar levels in the body.

Low blood sugar - Type I diabetes is a genetic type disorder most commonly diagnosed in childhood. This may be an underlying cause of the ADHD that your doctor may want to rule out before starting on medication.

Nutrient deficiencies - especially the B vitamins, Essential Fatty Acids (EFA's), chromium, or zinc deficiencies can all lead to restlessness. Many children are now found to be deficient due to the propensity to consume nutrient deprived foods such as fast foods and prepackaged snacks instead of fresh fruits and vegetables. A naturopathic physician can best advise you on a consumable nutritious diet and the safest and the most effective supplemental dosing strategy, if necessary.

Sensitivity to food colorings/preservatives - Do you notice your child's behavior change after a birthday party? Holidays such as Halloween? Or any other sugar laden event filled with bright artificial colors? This is a tough one as it is very difficult to avoid consumption of the Sponge Bob or Spiderman cake, with the bright orange frosting on top of the pumpkin cut-out sugar cookies. You may suggest to the hostess if she does not want her furniture to become climbing posts and spring boards, colorful vegetables and

various dips including natural peanut butter and homemade rice puff balls maybe healthy, and fun alternatives.

Sensitivity to Nutra-Sweet and other sugar alternatives. If you think using an artificial sugar such as NutraSweet will solve the problem, think again. These are artifically made substances and therefore foreign to our bodies. The majority of the side effects reported with these substances have focused on nervous system disruption.

Heavy metal toxicity - Mercury from vaccinations or fish primarily, lead passed on from lead laden paint, or cadmium most commonly from cigarette smoke exposure, etc can all cause abnormal behaviors, movement abnormalities, and/or learning problems. A naturopathic physician trained in heavy metal detection and chelation therapy, can instruct you on how to perform the necessary specialized lab to assess your child's heavy metal burden and the length of treatment required.

Televsion/game time - Children in today's world have very little contact with the outdoor environment and all the magical wonders of nature. Our yards have become smaller, free of bugs, and our children have little time to explore the great outdoors as we rush them off to the next activity. Instead our children spend "free time" watching television and playing video games, despite the growing evidence illustrating the stimulating effect television, Nintendo, and Game boy has on the body and mind of our children. Yes a change of habit or routine is always difficult but always rewarding. Try a week of no television or electronic games replacing this time instead with a game of catch, Frisbee or jungle gym time. You, your family, and your teacher maybe presently surprised to see the improved sleep and increased alertness during school hours.

Mental/emotional trauma such as living within a physical or abusive household, witnessing a traumatic event, etc can all present themselves as inattentiveness or hyperactivity as the child tries to make sense of what he has experienced. A naturopathic physician trained in homeopathy may refer your child to a mental health professional in conjunction with a homeopathic prescription to help process the trauma and move forward with their own life.

Homeopathy - Is a form of medicine that has been around since the 1700's which has a powerful yet gentle effect on balancing the body and mind without any side effects. Children in particular tend to respond favorably once the right remedy is chosen. It is best to seek out a professional trained in homeopathy to help find the remedy that best fits the healthy history, your child's likes and dislikes, and current behavior patterns.

Supplementation

Magnesium - Clinical researchers in France, Germany, and Poland have associated ADHD with lower levels of magnesium in red blood cells. A Polish team found reduced magnesium levels in 95% of a group of 116 children with ADHD. Magnesium deficiency correlates with distractibility.

Zinc - Hair and/or serum tests on children with ADHD reflected lower zinc levels. Lower hair zinc predicted a poorer response to amphetamine treatment. Urinary zinc excretion was lower in hyperactive boys than in controls. Researchers at Ohio State University found that zinc is an important co-factor for metabolism relevant to neurotransmitters, fatty acids, prostaglandins, and melatonin, and indirectly affects dopamine metabolism, believed intimately involved in attention-deficit/hyperactivity disorder (ADHD). These studies suggest that zinc deficiency is a common finding among hyperactive children and may contribute to poorer therapeutic outcomes.

Essential Fatty Acids - In two studies, Purdue University researchers observed an association between abnormal essential fatty acid (EFA) levels and symptoms associated with EFA deficiency. Purdue researchers have recently completed a study that correlates EFA levels, EFA deficiency symptoms, and behavioral responses to therapy with a combination of evening primrose and fish oils.

The same researchers found that subjects with lower compositions of total Omega 3 fatty acids had significantly more behavioral problems, temper tantrums, and learning, health, and sleep problems than did those with high proportions of Omega 3 fatty acids.

Dr. Deborah Ardolf, holds a Doctorate in naturopathic medicine and a Masters in Communication Disorders. She worked closely with children who presented with obstacles to learning in the traditional classroom setting, as well as the child's parents and teachers within her own private practice. To set up an appointment or to speak to her directly, please call (480) 767-7119.