THE NATURAL APPROACH TO ADHD

By Dr. Zoltan P. Rona

Attention Deficit Hyperactivity Disorder (ADHD) is the most commonly diagnosed behavioural disorder of childhood. It affects thousands of infants, children, adolescents, and adults. Some reports claim that 1 in 10 children suffer from some degree of ADHD but US government statistics claim that it affects about 3 – 5% of school aged children.

It shows up as abnormalities in behavior like excessive, uncontrollable, physical activity, learning disorders and communication problems in early childhood with some remission occurring during puberty. In the past two decades there has been a growing diagnosis of the disorder in adults.
It is thought that children are usually affected by ADHD before birth and that, left untreated, continue to suffer from the condition into adulthood. ADHD affects more boys than girls with a ratio of 3:1. A high percentage of hyperactive children have blond hair and blue eyes and suffer from what appear to be allergic signs and symptoms.

In the history of an ADHD child, the mother often describes that, during pregnancy, there was a great deal of fetal movement and very hard kicking. As infants, hyperactive babies are often colicky, sleep poorly or very little and cry or scream a lot. In childhood, they look restless and fidgety and eat poorly. In the more severe cases they may be “rockers” or “head bangers” rejecting affection and mothering.

As the child becomes older, there is a very noticeable rushing from one thing to the next, a shortened attention span and easy distractibility. Behaviour can become destructive with poor coordination and general clumsiness. Some hyperactive children have trouble integrating what they see and hear due to visual perception abnormalities which, in turn, leads to inabilities to understand basic concepts.

Other conditions that have been documented to occur in many ADD children are eczema, asthma, chronic infections, hay fever, headaches, stomach aches and fungal infections of the scalp, skin and nails. Some believe that ADHD is a condition that runs in families but there is no consensus amongst various medical and psychological authorities on the causer of the condition. Based on imaging studies, it is now becoming more accepted that the brains of ADHD children are different from those of children who do not suffer from the condition. Most children with ADHD have at least one other behavioural or developmental problem. They may also have a psychiatric problem such as depression or bipolar disorder.
SYMPTOMS IN INFANTS AND YOUNG CHILDREN

- crying inconsolably
- screaming
- restlessness
- poor or little sleep
- difficult feeding
- refuses affection and cuddles
- head banging or rocking
- fits or temper tantrums

SYMPTOMS IN OLDER CHILDREN

- impulsiveness
- clumsiness
- constantly moving
- destructive or disruptive behaviour
- accident proneness
- bouts of fatigue, weakness and listlessness
- aggressiveness
- poor concentration ability
- vocal repetition and loudness
- withdrawn behaviour
- restlessness
- school failure despite normal or high IQ
- poor sleep with nightmares
- poor appetite and erratic eating habits
- poor coordination
- irritable, uncooperative, disobedient, self-injurious
- nervous, very moody or depressed
- hypersensitive to odors, lights, sound, heat and cold
- nose and skin picking or hair pulling
- bed wetting (enuresis)
- dark circles or puffiness below the eyes
- red earlobes or red cheeks
swollen neck glands or fluid behind ear drums

CAUSES OF ADHD

genetic abnormalities

birth injuries

hormonal imbalances

psychological or emotional problems

biochemical imbalances caused by toxic heavy metals (lead or cadmium excesses), food allergies, vitamin and mineral deficiencies, amino acid deficiencies

toxins from chronic infections with bacteria, fungi (e.g. candida overgrowth) and parasites

digestive enzyme or stomach acid deficiencies

environmental hypersensitivities, especially to food dyes, chemicals and additives

multiple food cravings and delayed (Type II-IV) allergies/food intolerances

dyes, chemicals, inhalants, and other irritants

hypoglycemia or sugar hypersensitivity

ADD children should be thoroughly tested and treated by diet changes and nutritional supplements before resorting to amphetamine-like drugs like methylphenidate (Ritalin®).

TESTS TO CONSIDER

routine blood and urine tests

hormonal tests for thyroid, adrenal, pancreas (enzymes, insulin, glucagon)

insulin and glucose tolerance tests

vitamin and mineral testing via blood, urine and hair
DRUGSTORE CHILDREN

In the early 1990s the production of Ritalin and other amphetamines used to treat ADHD increased by over 500%. The vast majority of the medication is given to boys between 5 and 12 years of age. IMS America, a marketing research firm in Plymouth Meeting, PA., reported that the number of prescriptions written for the 3 main stimulant drugs used to treat attention-deficit hyperactivity disorder (ADHD)-Ritalin, Dexedrine, and Cylert tripled from 1990 to 1994. Ritalin's increasing popularity lead to a shortage of the drug last year. That, in turn, caused the Drug Enforcement Administration to increase the production quota for Ciba-Geigy, the manufacturer of Ritalin, to 8,189 kilograms, 4 times the allotment 4 years earlier.

One of the reasons for the increased use of Ritalin is because it is being used as a diagnostic tool for attention-deficit hyperactivity disorder (ADHD) by too many primary care physicians. This often results in misdiagnosis and inappropriate treatment. If a child responds to a stimulant, it does not necessarily mean that the child has attention-deficit disorder.

Certain allergy medications have been reported to have adverse side effects on learning and behavior because they affect the central nervous system. For example, the use of the anti-asthma drug, theophylline has been significantly correlated with reports of inattentiveness, hyperactivity, irritability, drowsiness and withdrawal behavior, these negative side effects
being directly proportional to the length of use. The use of this medication may also cause learning disabilities.

Corticosteroids are other drugs used to treat asthma, allergic rhinitis and other allergic conditions. Unfortunately, these drugs, whether swallowed or inhaled, have a direct and indirect impact on the central nervous system. They have been documented to cause a change in brain electrical activity, mood changes, changes in sleep patterns, increased irritability and even psychotic reactions. Children on continuous steroids for at least a year have been reported to have lower performance on standardized academic achievement tests for reading, verbal memory and mathematics.

Commonly used prescription and over the counter antihistamines have been reported to cause slower reaction time on visual-motor tasks, worsened attention and cerebral processing speed and drowsiness. Antihistamines can cause sedation, dry mouth, and irritability. There is also some suggestion that antihistamines are associated with a greater cancer risk. Decongestants have been associated with visual hallucinations in some children. While spokespersons for the medical profession tend to minimize such side effects, they can be of significant concern to parents of children with ADHD or learning disabilities (LD).

NUTRIENT DEPRIVED CHILDREN

Micronutrient deficiencies or dependencies (e.g. zinc) can have deleterious effects on both short and long term memory. White spots on the nails could be a sign of zinc deficiency even when blood tests for zinc are normal. The expression, “No zinc, no think” is not without merit. Many studies have shown that zinc supplementation is helpful with memory, thinking and I.Q. The best way of getting zinc is to optimize the diet. The most recently published RDA (Recommended
Dietary Allowance) for adults is 15 mgs. per day. The richest sources of zinc are generally the high protein foods such as organ meats, seafood (especially shellfish), oysters, whole grains and legumes (beans and peas).

Studies show that cognitive development can be impaired when there are low iron blood levels. Deficiencies in B vitamins, particularly vitamin B1 and choline may also be involved. Toxic heavy metals such as cadmium and lead can accumulate in the body and cause both hyperactive behavior and learning disabilities in some susceptible children. A hair mineral analysis can reveal whether or not these toxic heavy metals are building up in the body. The good news is that, with a natural program of vitamins and minerals, accumulations of lead and cadmium can be removed from the system.

Since amino acids are the precursors to the neurotransmitters, low levels can lead to neurotransmitter deficiency. Higher than accepted levels may lead to neurotransmitter excess. One example of amino acid excess causing hyperactive behavior occurs with the artificial sweetener, aspartame. Some children are highly sensitive to aspartame and scrupulous attention should be aimed at keeping this potential neurotoxin out of the child’s diet. In children who consume large amounts of aspartame in soft drinks or other processed foods, amino acids can be significantly abnormal. Once the amino acid levels are determined, treatment can be aimed at balancing brain chemicals more accurately.

A history of allergies has been reported by many authors for behavioral problems like being overtalkative, irritable, inattentive/distractible, hyperactive, impulsive, difficult to handle, drowsy/sleepy, mean, withdrawn, and euphoric. ADHD has been particularly connected with food allergies, chemical allergies and salicylates. Food allergy testing via a blood test known as the
IgG-RAST is now available in Canada through Gamma Dynacare to test the immune system reaction to as many as 200 different foods. Any doctor in Ontario can order this test at a patient cost between $250 and $325. Other blood-based food allergy tests are available from assorted labs in the United States but the costs are considerably higher.

Conventional medicine, in particular conventional psychiatry, treats ADHD children with Ritalin® and similar amphetamine-like drugs. These stimulant medications work fairly quickly and, for many kids, this is effective treatment, especially in the case of the child about to be expelled from school or causing the family to fall apart. On the negative side, amphetamine-like drugs are only effective in about 70-75% of cases. In many cases, increased hyperactivity occurs after the last dose of the day has worn off. The child may have trouble going to sleep, difficulty getting up the next morning and experience a loss of appetite. The risk of marginal deficiencies in iron, zinc, calcium, B vitamins, protein, etc. increases.

Amphetamine-like drugs do not address the cause of ADD/Hyperactivity. It's akin to taking an aspirin for recurrent headaches. The pain temporarily goes away but the reasons for the headaches remain a mystery. The majority of parents do not like the idea of medicating their children. Some parents reluctantly medicate their children only because they are pressured by teachers, schools and dogmatic physicians to use stimulant drugs. Further, there are no long term studies showing that medicated children do better in the long run academically, emotionally and otherwise compared to the children of parents who say no to drugs.

According to recent scientific research, Ritalin, the deceptive quick fix for hyperactivity/attention deficit disorder (ADHD) interferes with blood flow to the brain and routinely causes gross malfunctions in the developing brain of the child.
Some of its damaging effects include:

* Decreased blood flow to the brain associated with impaired thinking ability and memory loss.

* Disruption of growth hormone, leading to suppression of growth in the body and brain of the child

* Permanent neurological tics, including Tourette’s Syndrome

* Addiction and abuse, including withdrawal reactions

* Psychosis (mania), depression, insomnia, agitation, and social withdrawal

* Possible shrinkage (atrophy) or other permanent physical abnormalities in the brain

* Worsening of the very symptoms the drug is supposed to improve (hyperactivity and inattention)

* Decreased ability to learn

According to American psychiatrist, Dr. Peter Breggin, Ritalin and similar drugs "work" by producing robotic or zombie-like behavior in children, enforcing docility and obedience. This can produce a few weeks of subdued behavior but has no positive effect on academic achievement and no positive long-term effects. There is no scientific evidence that giving Ritalin to a child helps prevent future problems such as school failure or delinquency. In his book, "Talking Back to Ritalin" he documents how Ritalin brain damage suppresses creative, spontaneous and autonomous activity in children while producing no benefit for a child's psychology, academic performance or achievement.

While weaning a child off Ritalin, it is very important to optimize nutritional status. Tests for food allergies, toxic heavy metal excesses (especially lead and cadmium), hidden parasites
and candidiasis as well as the levels of amino acids (protein), vitamins and minerals should be done to individualize diet and nutritional supplements as much as possible.

My book, "Childhood Illness and The Allergy Connection" (Prima Publishing, 1997) goes into this in detail. Irrespective of lab testing, any child on Ritalin and drugs like it can take the following nutritional supplements and antioxidants at individualized levels to minimize the brain damaging effects of the drug and its withdrawal symptoms:

- Free amino acids (multiple) - provides neurotransmitter precursors
- L-Theanine
- GABA
- Bee pollen - offsets food and chemical allergies
- Flax seed, fish oils (omega-3 fatty acids) and evening primrose oil - for optimal brain levels of essential fatty acids
- Green food supplement (e.g. barley, kamut, spirulina, etc.) - antioxidant and phytonutrient source
- Vitamin B complex - supports neurological function
- Vitamin B12 and folic acid injections - speeds repair of damaged DNA in cases of malabsorption
- Phosphatidyl choline (lecithin) - enhances memory by boosting acetylcholine levels in the brain
- Vitamin C - antioxidant and repair of nervous tissue
- Vitamin E - antioxidant protecting nerve cell membranes and their polyunsaturated fatty acids
- Vitamin D
- Octacosanol - antioxidant and brain function enhancement
- Ginkgo biloba extract - brain and nervous system antioxidant; enhances cerebral circulation
- Calcium - natural calming effect
- Magnesium glycinate - anti-spasmodic, antitonic effect
- Multiple minerals - balances calcium and
magnesium

- Digestive enzymes - enhances nutrient absorption; fights parasites, fungi and bacteria

 Omega-3 fatty acids are also often referred to as essential fatty acids (EFAs) or polyunsaturated fatty acids (PUFA). EFA’s make up at least 60% of the mass of our brains. These are called essential because our bodies cannot produce these from other nutrients. They must therefore be obtained from either diet or supplements. They are needed as basic elements of our cell membranes. They control the inflammatory response and, hence pain and the spread of disease. They also mediate the immune response, control hormone production and regulate nerve transmission.

The ideal ratio of omega-6 to omega-3 fatty acids is 1:1. The standard North American diet, due to the over consumption of breads, cereals, eggs, poultry, nuts, vegetable oils such safflower, corn, soy and sunflower from processed foods has a ratio of between 20:1 and 30:1. This relative omega-3 deficiency is what is believed to be the cause of numerous health problems.

 Omega-3 fatty acids are critical to the structure and function of neuronal membranes. The communication between various nerves could not occur in a normal way without omega-3 fatty acids. As a result, just about every brain condition would benefit from optimal levels of DHA and EPA.

 Depresssion is one of many common conditions that could benefit from omega-3 fatty acids. They influence something called the cytokine system in the brain. These cytokines are known as interleukin-1 -2 and -6, interferon-gamma, and tumor necrosis factor alpha. They can directly and indirectly influence the severity and outcome of depression.
Cognitive health promotion is another area of proven benefit of omega-3 fatty acids. The incidence of ADHD (Attention deficit Hyperactivity Disorder) is rapidly escalating with a greater and greater dependency on drugs such as Ritalin (an amphetamine). In fact, at one time in the 1990s, so much Ritalin was being prescribed that the drug companies manufacturing it ran out of stock and could not keep pace with the demand.

The good news is that there are now numerous studies supporting the use of EPA and DHA in the treatment of ADHD. EPA and DHA are crucial in proper retinal and brain development. They improve school performance, learning, focusing on tasks and behaviour in children.

One study from Australia published in 2007 by Sinn and Bryan concluded that a 30 week treatment of children with ADHD with fatty acid capsules (providing 560 mg/day of EPA, 175 mg/day of DHA, 60 mg/day of gamma-linolenic acid, and 10 mg/day of vitamin E) plus a multivitamin tablet containing low (RDA) amounts of vitamin and minerals yielded slightly better results than seen in children who used Ritalin. These fish oils reduce ADHD symptoms whether or not a child is on Ritalin.

For those wanting an official seal of approval, Health Canada’s Natural Health Product Directorate (NHPD) requires a minimum of 1.5 – 3.0 g of EPA and DHA per day including at least 1.0g of EPA per day (at a ratio of 2:1) to support mood balance. As we all know, if Health Canada says so, it must be true.

Omega-3 fatty acids preserve the blood levels of vitamin D, now universally acknowledged as being one of the most important nutrients for the prevention of cancer, heart disease, inflammation of any kind, diabetes and all auto-immune diseases. Most scientists now believe that the reason why omega-3 is so important is that it supports the many functions of vitamin D. If you want to read more about vitamin D but do not want to spend weeks doing that, read my new book, “Vitamin D, The Sunshine Vitamin”.

Fortunately, many of these can be combined into
one supplement. Frequent follow up visits for supervision by a natural health care practitioner are important to ensure compliance and optimal results.

THE REAL CAUSES

Like the other chronic diseases of our times like multiple sclerosis (MS), lupus, cancer, asthma and autoimmune disease, ADHD is at epidemic levels in the post-industrial revolution era. Childhood learning problems are also on the rise. Some argue that this is because of better recognition and objective testing but respected authors like William Crook and Lendon Smith strongly disagree. Learning disability (LD) was not a major problem for children growing up in the early 1800's and as late as 1950, there was only one child in each classroom with LD or ADHD. Today, it is more like five or six. Ritalin, other amphetamine like drugs or intense psychotherapy have done nothing to change the dramatic rise in incidence of these diagnoses because they do not address the source of the problem. The answers to why a child develops LD or ADHD lie in the field of genetics, environmental toxicology and nutrition.

Although genetics, infections and brain damage (trauma) have been cited as causes of ADHD and LD, these cases are quite rare compared to causes like a dysfunctional home, heavy metal toxicities, nutritional deficiencies, and food and chemical allergies. The majority of cases are caused by an immune defect and allergies to food additives, preservatives, chemicals, or inhalants. To deal adequately with this illness, we must address all these potential imbalances. Some of the nutritional deficiencies that correlate with LD or ADHD are calcium, magnesium, iodine, iron and zinc. On the other hand, high copper, lead, cadmium and aluminum levels have also been seen in learning disabled children.

Aside from diet changes excluding food and
chemical (food additives, dyes, preservatives) allergies, there are many natural treatments including a long list of vitamins, minerals, herbs, amino acids, essential fatty acids and enzymes. The treatments all depend on the case history, physical examination and the results of biochemical tests.

Evening primrose oil is a common remedy recommended for ADD children. It and numerous herbs have anti-inflammatory and anti-allergy properties through their ability to modulate prostaglandin levels, the hormones responsible for inflammation, pain, allergic reactions and other aspects of the immune system. Based on the findings of biochemical tests, a personalized nutritional program of diet and supplements can be recommended.

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Using a holistic approach to treating ADHD, the French dramatically reduce the number of psycho-stimulant medications given to children. Cultural Differences. Cultural differences such as parenting style should be included in this comparison as well. At Amen Clinics, natural treatments have become much more common as a first line therapy. We are definitely not opposed to medication, as there are many times when medication is appropriate and even life-saving. However, we are opposed to the indiscriminate use of medication, which we are seeing even more commonly in the new patients who come to our clinics. ADHD Diagnostics at the Amen Clinics: Symptom Clusters using DSM Criteria. 4 Circles Assessments.