



Treating Autism Spectrum Disorders and other Neurodevelopmental Conditions: The Biomedical Approach

WHAT IS TRIGGERING AUTISM AT ITS CURRENT RATE?

A definitive cause of Autism is not known at this time. Mainstream medicine classifies Autism as a neurologic disorder that is likely caused by genetic abnormalities or errors. As a result of this position, the standard medical approach to treatment of Autistic children is with behavioural therapy, either known as ABA (Applied Behavioural Assessment) or IBI (Intensive Behavioural Intervention).

Over the past 20 years, a growing number of researchers and health care practitioners have improved the lives of thousands of Autistic children using treatments that:

- kill yeast or bacteria that produce neurotoxins (chemicals that harm nervous system tissues)
- change diets to eliminate foods that generate opioid and other food-sourced toxins
- eliminate heavy metals from nervous system tissues and other organs
- treating or eliminating oxidative stress and inflammation that damages organs as well as DNA and RNA (genetic building blocks)
- supplement with vitamins, minerals and other natural medicines that support metabolic problems

The Biomedical Approach believes that environmental triggers (infectious agents, vaccines, foods, pesticides, pollutants/heavy metals) accumulate to a threshold point where Autism starts. These factors can trigger Autism on their own, or in conjunction with genetic susceptibilities. Once Autism begins, untreated triggers and nutrition deficiencies will lead to a worsening of the condition. Starting Biomedical Approach treatments, along with Behavioural therapies, as early as possible increases the chances that Autistic behaviours can be reduced or possibly eliminated. Naturopathic medicine offers many treatment options, from therapeutic diets, herbal (botanical) medicines, vitamin and mineral supplements, to homeopathic remedies, hydrotherapy (water-based therapies such as foot baths and low-heat infrared saunas) and (needle-free) acupuncture.



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TREATMENT: THE BIOMEDICAL APPROACH

This section provides generalized information. After test results are received, a comprehensive individualized treatment plan will be developed.

Reducing Toxic Stress: Toxins come from various sources, including foods, household/yard chemicals, heavy metals and infections. It is possible that the (epidemic) increase in autistic-spectrum disorders over the past 15 years has occurred because the effected children have developed susceptibilities to problems with natural elimination of toxins compared to normal children. Some individuals develop problems more rapidly and severely than others, even though we're all exposed to this environmental toxic burden.

One area to consider reducing toxins is in the home: it has become more toxic than the outdoor environment. From chemical cleaners, pesticides, perfumes and colognes, air fresheners and laundry detergent, to the food in your kitchen cupboards, there are many agents that affect your child's neurodevelopmental health. It will take time to learn about alternative products but fortunately many are becoming available on a retail level. For example, non-toxic laundry detergent instead of Tide, or fresh squeezed juices instead of pop, Fruitopia, or fruit "drinks" that are made with portions of concentrates. It is recommended to explore your local health food stores or specialty markets/grocery stores for natural product alternatives to purchase, although Dominion, Longo's and Loblaw's have health food sections too. Melaleuca is a multi-level marketing company that produces many products for environmentally safe homes too. Products can be purchased from Touchstone Naturopathic Centre if you wish to try them.

A good resource for improving the living environment of your home, and eliminating chemicals and unnecessary additives and preservatives in foods and beverages is "Non-toxic, Natural and Earthwise" by Debra Lynn Dadd. Two videos about toxins in the modern home are available for viewing from Touchstone Naturopathic Centre. Dr. Josef Krop has also written a book about environmental toxicity called "Healing the Planet One Patient at a Time".

Reducing Allergy and Inflammation: Toxins in the body will increase the potential for allergy, and this in turn generates inflammation. The definition of allergy can be broadly interpreted as the abnormal response to agents in the environment; it does not necessarily refer only to allergies to dust, pollens, pets and peanuts. Neurological conditions such as Parkinson's Disease, Alzheimer's and Multiple Sclerosis are all worsened by inflammation. It is assumed that autistic spectrum disorders involve neurological inflammation too. Foods, bacteria, viruses, yeast/molds/ fungi, chemicals, heavy metals, etc. can generate inflammation.



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One proven and effective method of reducing “allergy” symptoms to foods and environmental triggers is NAET (Nambudripad’s Allergy Elimination Techniques). This form of natural therapy utilizes acupressure to alter the impulses created by the brain in the presence of allergens. This treatment has been successfully used with many autistic-spectrum children at Touchstone Naturopathic Centre, and is currently under formal scientific/medical research in the U.S.

Detoxification: As you begin to decrease the allergy and inflammation through dietary control, supplementation, etc., you can begin the process of detoxifying your child’s inner body. Detoxification involves reactions in the liver and kidney that metabolize and safely eliminate toxins. The human body generates many chemicals that naturally help to do this. The skin, liver and kidneys are the primary organs that flush the toxins out. Autistic-spectrum children have reduced detoxification capacity and therefore must be assisted with this critical process.

Simple steps such as Epsom salt baths can be taken: 2-3 cups per bath, 3-5 times per week. Infra-red saunas have been studied and documented for their effectiveness in treatment persons with toxic overloads. Heavy metal detoxification and/or chelation as part of your child’s treatment will be discussed in a few months. Ionic footbaths as well as detoxification pads applied to feet are also effective.

Neurological Healing and Recovery: New information is being learned by practitioners every year. Nutritional supplements like fish oils and Glutathione lead the way in healing damage to the nervous system. HBOT (hyperbaric oxygen therapy) has been found in recent years to be an effective adjunctive treatment to detoxification.



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BIOMEDICAL APPROACH II: DIET & SUPPLEMENTS

The Diet: What Your Child Eats Really Does Make a Difference!!

As “scary” as this topic can be, it really does make a big difference in your child’s health: sometimes dramatically. The improvements commonly seen with many autistic children have to do with attention, communication, eye contact, etc. Gluten (from wheat and other grains) and casein (from dairy) are two of the most common food offenders for autistic-spectrum children. The gluten free/casein free diet has been used for many years with good success. Is it difficult to follow? Sometimes. Do children become healthier through biomedical therapies without the diets? Sometimes. However, enough children (at least 65-70%) show improvement in cognitive changes that make the GF/CF diet worthwhile trying for a minimum of 3 to 6 months. NAET can help lower a child’s food and environmental allergies and sensitivities to the point that they can handle wheat and dairy in their diet without adverse reactions. As you read and learn more about Biomedical Approach treatments, you will also hear about SCD (Specific Carbohydrate Diet) and Low-Oxalate diets. These diets benefit smaller percentages of children and can be more difficult to implement and sustain; sometimes they are the final key to recovery.

It is very important to remember that gluten, casein, and food allergens are toxic to the brains of many children and constant avoidance of the foods must be done. These foods have adverse chemical effects similar to opiate drugs and cause “addictive-like” problems with the brain.

Digestive enzymes seem to help some children to diminish the adverse effects of gluten and/or casein containing foods when accidentally eaten; they cannot be considered an alternative to the GF/CF diet in the beginning of treatment. Enzyme supplements like AFP Peptizide, Zyme Prime, Enzym-Complete with DPP-4, Digest Right and others can be purchased.

Several resources are available to help you successfully implement the dietary changes. Nutritionists such as Kim Gaule (at Touchstone) or Irene Swedak (at Wellness Wizards) are experienced and able to help direct you in implementing the diet. Books and websites are also helpful:

- “Special Diets for Special Kids” by Lisa Lewis
- www.tacanow.org
- www.gfcfdiet.com



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When considering that autistic-spectrum children have difficulty eliminating toxins, it is important to consider other options of avoiding them. Organic fruits, vegetables and meats should be integrated in the diet when possible. Avoid fast-food (junk food), sodas, and refined pastries. If you're not sure about these suggestions, consider viewing the video "SuperSize Me" for documentation of an extreme example of what fast-food can do to a person's health.

Incorporating health foods and whole foods into the daily diet will take time. Consulting nutritionists and books will make this easier for you. Consider:

- "The Body Ecology Diet" by Donna Gates (www.bodyecologydiet.com)
- "Total Health Program" by Joseph Mercola (www.mercola.com)

Juicing can be an important part of any nutritional program. Juicing fresh organic fruits and vegetables is an excellent way to get high-density vitamins and minerals into a child's diet. Champion and Omega juicers are better brands to consider when buying a juicer; they are proven to retain higher levels of vitamins and minerals over lower-priced models.

Whole food products contain many of the antioxidants, vitamins, minerals, and plant nutrients that make our bodies healthy. No amount of regular supplements can make up for an unhealthy diet that includes sodas, fast foods, unhealthy fats and refined sugars. Junk and fast foods are nutritionally deficient. Two products have been found to be helpful in providing high levels of nutrients. These can be mixed with water or natural juices, taken along with supplements:

- "Miracle Greens" (www.miraclegreens.com) or "Greens First" by Doctor's Choice
- Xango juice (www.goxango.com)

If your child is being treated for Candida and/or bacterial overgrowth, please be careful with giving juices and fruit to them. The natural sugars they contain are "food and fuel" to these pathogens. Juices and fruit sauces concentrate sugars, so they need to be diluted or used in small quantities. Add natural, calorie-free sweeteners like Stevia extract or Xylitol to add a more desirable flavour to liquids when giving supplements.

Another cautionary point about certain fruits and vegetables: some ASD children are extremely sensitive to phenols in foods (also present in chemicals such as household cleaners). Apples, bananas, and strawberries have high amounts of phenols. Eliminate these fruits for 4-5 days to determine if any improvement in behaviour or cognitive function is observed. If your child improves, these foods should be limited in their diet; or they can be given specific enzymes that digest and neutralize the phenols (e.g. Houston's No-Fenol)



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Finally, it is important to learn that chemicals in processed foods can aggravate the nervous system. These “excitotoxins” are found in fast foods, soda/pop, desserts and in a variety of other “modern” foods. MSG and aspartame (“Nutrasweet”) are the two most common recognized excitotoxin food additives but other additives (food colouring, preservatives such as nitrates and nitrites) are equally damaging to the brains of children and adults alike. To learn more about excitotoxins, look up:

- “Excitotoxins: The Taste that Kills” by Russell Blaylock, MD
- Amy Yasko, PhD, ND www.holistichealth.com - articles are on this website

Supplements: The basis of the Biomedical Approach is the use of supplements (vitamins/minerals, herbal or homeopathic medicines, probiotics, etc.) that do the following:

- correct dietary or genetically-induced nutrient deficiencies
- treat yeast or fungal, or bacterial overgrowths and replace beneficial organisms (probiotics)
- promote the elimination and/or detoxification of heavy metals
- support or improve neurotransmitter function

This handout will not give detailed information about the individual supplements; references given earlier will help you in this way. Giving supplements combined with other supportive therapies will begin improving the deficits and impaired behaviours that autistic-spectrum children and their families live with everyday. Remember that the improvements will vary from child to child; keep working with practitioners to refine treatments for your child’s optimal outcome.

Basic or starter supplements are important for every children, especially autistic-spectrum children. Several multivitamin products have been formulated to meet the specific needs of ASD patients and should be considered first, rather than health food store children’s multivitamins. The premium price is usually worth paying. Typical supplements recommended at the first consultation include:

- Multivitamins: NuThera (capsules) by Kirkman, or Basic Nutrients Plus by New Beginnings Nutritionals – 2 capsules daily
- Chewable Calcium with Magnesium (New Beginnings) – 2 chewable tablets daily
- Antioxidant Formula (New Beginnings) – 2 capsules daily
- Carlson’s Cod Liver Oil (Lemon Flavoured) – 1 teaspoon daily
- Zinc Picolinate (New Beginnings, or others) – 1 capsule per day
- Probiotics: Ultra Flora Plus (Metagenics) or HMF Neuro (Genestra)



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You may wish to add B-Complex Plus (New Beginnings). B vitamins are helpful in promoting detoxification, and support nervous system function. Supplements can be purchased from several sources: Touchstone Naturopathic Centre or other local health food stores (recommended stores include Nature's Source, Hooper's, York Downs or Smith Pharmacies – all in Greater Toronto Area; most can ship to you).

Starting Supplements: One wise piece of advice – Don't start everything at once. It's wise to plan introducing or adding new supplements separately, at intervals of 4 to 7 days. Adding supplements separately prevents side-effects from overstimulating the child's biochemistry. It is easier to know which supplement may be causing a side-effect when added separately. It is also easier to advise you if the side-effect will stop on it's own or may need other supportive treatments to allow its continued use.

New Beginnings Nutritionals and Kirkman supplements, as well as other lines developed for ASD patients can be conveniently ordered from Spectrum Supplements in Montreal (www.spectrumsupplements.com or call 514-371-7122). Shipments from Spectrum are received in 2-3 days (depending on availability), and shipping costs are included if your order exceeds \$100. Please let them know you are a patient of Touchstone Centre. New Beginnings offers a Starter Package, providing 3 months of supplements. You may order the package from www.nbnus.com or call 877-575-2467. Most U.S. produced supplements have not been approved for sale in Canada according to Health Canada's new regulations for Natural Health Products. This does not mean that U.S. supplements are unsafe; they just aren't officially approved for sale.

One key therapy to learn about involves the use of vitamin B12, specifically methylcobalamin. Please read "The Use of Methylcobalamin Injections to Support Methylation Problems in Autistic-Spectrum Children" that should be available at www.drneubrandner.com to develop an understanding of this important therapy. It will be recommended during the discussion of your first set of test results.