All Natural Advantage

Health News Views and Reviews

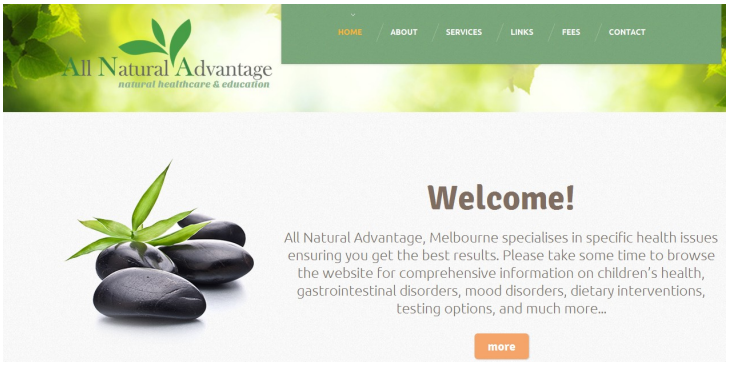
December 2014

INSIDE THIS ISSUE:

New website launch is here!

I am excited to launch my completely updated website, All Natural Advantage. The aim of the website is to provide reliable evidence based information and research that the public can trust. The Autism Spectrum Disorder (ASD) page is easier to navigate. Over 20 years ago, as a parent with a newly diagnosed ASD son, this is the information that I would have wanted to make decisions on how to help him. Over the years research has helped treatment progress. Research continues to expand rapidly, and even some medical professionals are beginning to acknowledge that, although there is not a cure, ASD can be treated effectively.

The website has been deigned for the new parent with an ASD child that may be confused as to what may be available, as well for parents that have been on the journey for a while looking for what may be new in ASD research.



Website Highlights

The ASD webpage features:

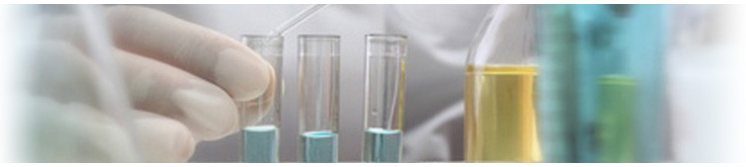
- introductory section for new parents or parents who have never considered Biomedical treatments for their ASD child
- dietary considerations for ASD children
- gastrointestinal issues in ASD children
- a guide to specific behavioral issues, their cause and possible treatment
- benefits and adverse effects of supplements
- neurological abnormalities in ASD children
- methyl-B12 injections
- oxytocin for socialization
- sulphuraphane the new supplement for ASD?

Our Mission

- To change the way that we think about treating autism spectrum disorder.
- To help each individual achieve their full potential.
- To take the guess work out of diagnosis

More Website Highlights

- health Tests page has been expanded to include test result examples of what the tests include and what the results look like.
- expanded section on diets that help heal our body, includes sections on salicylates, phenols, and food intolerances
- gastrointestinal health now includes small intestinal bowel overgrowth (SIBO), intestinal permeability and liver detoxification
- fatigue
- insomnia
- mood disorders



Take a moment to browse my new website. New pages are planned to be added soon, so that there will always be something new to read and review.

www.allnaturaladvantage.com.au

Oxytocin and Cholesterol

Oxytocin treatment in ASD for socialisation issues has been in the news on and off for some time now. Lately there seems to be a renewed interest in oxytocin research. The number of studies being published has increased quite significantly recently. Oxytocin is a hormone that is involved in receptive and social behaviour. Studies so far in individuals with social phobia/ social anxiety disorder suggest a possible role for oxytocin in treating these social deficits in ASD. More recent studies are confirming that in many ASD individuals, including adults, intranasal administration of oxytocin is beneficial.

We now know that oxytocin has many other wide ranging effects including on the stress hormones, cardiovascular system, serotonin production and the opioid system. Given that intranasal oxytocin has been shown to be quite safe for long-term use, a trial of oxytocin may be worth considering. Some parents prefer to trial oxytocin as a homeopathic remedy, before considering pharmaceutical oxytocin.

"Oxytocin works better in the presence of cholesterol"

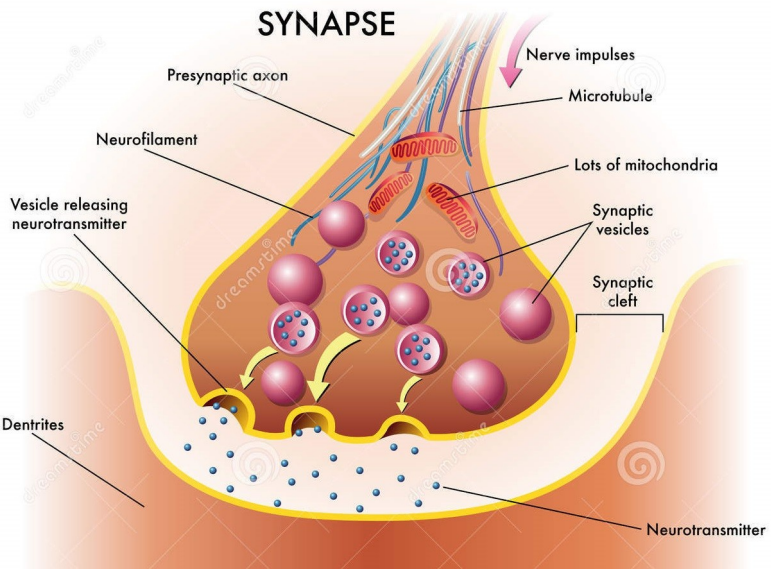
So where does cholesterol come into the picture? Cholesterol has been regarded as bad and the pharmaceutical industry has made a huge amount of money promoting cholesterol lowering drugs. Research that has been "buried" in the literature clearly shows that low levels of cholesterol are responsible for increased risk of violent behaviour, depression, infection, stroke and even cancer. Cholesterol is produced by the liver and is essential for the proper functioning of cell membranes, the myelin sheath protecting nerve cells, as a precursor to the production of hormones, bile and vitamin D.

A sub-group of ASD individuals have low levels of cholesterol. This may be due to low dietary intake, poor absorption from the intestinal tract, chronic gastrointestinal infections, hypothyroidism and gene defects in cholesterol synthesis. Another disorder, Smith-Lemli-Opitz Syndrome (SLOS) is characterised by 7-dehydrocholesterol reductase deficiency, an enzyme that is involved in the last step of cholesterol production. There is some overlap in the symptoms of SLOS and ASD. Some of the symptoms that characterise the syndrome include: lack of speech, severe behaviour abnormalities Supplementing these children with adequate cholesterol sees a significant improvement in symptoms. Cholesterol also delays the inactivation of oxytocin receptors. Basically, oxytocin works better in the presence of cholesterol as the oxytocin receptor is stabilised and function is enhanced. Read the related article, Oxytocin and Cholesterol on my website.

Ketamine, Depression and ASD

What is the connection?

Ketamine was a drug used in veterinary medicine as a tranquilliser and anaesthetic. As early as 2000, a study of eight people with long-standing untreatable depression, suggested that a single dose of the drug ketamine, given intravenously, would within hours, lift the symptoms of depression. In a large clinical trial in 2013, involving 72 participants, researchers from the Icahn School of Medicine, at Mount Sinai in New York, found that individuals that failed to respond to any other treatments for depression experienced relief from suicidal thoughts when given Ketamine intravenously over a 40 minute period. Some individuals go into remission within a day and can remain free from depression for up to 10 days after their single IV treatment. A growing body of research suggests that Ketamine could work for 50-60 per cent of treatment resistant depressive patients.



Depression is not just a lack of serotonin, nutrient or a chemical imbalance. Research has now shown that depression causes some dendrites, the message-relaying extensions at the ends of neurons to become damaged and shrivelled. The synaptic gap becomes wider and wider until eventually the neurotransmitters are no longer able to attach in sufficient quantity to the receptors on the dendrites in order to trigger a neuronal response. That is why antidepressants such as Efexor, Lexapro, Prozac and herbals such as St John's Wort in some cases may not work to begin with or stop working after a period of time because the synaptic gap becomes too wide for the serotonin to cross and, stimulate a neuronal response.

Glutamate is a stimulatory neurotransmitter in the brain. Studies have shown that glutamate is often low in depressed patients. **Glutamate has been shown to be a vital factor in helping the brain's neurons to repair themselves.** As levels of glutamate increase within the neuronal synapse, Brain Derived Neurotrophic Factor (BDNF) is released. BDNF stimulates the regrowth of dendrites, which in turn restores and repairs the synapses allowing a correct response to neurotransmitter release within the synapse.

BDNF is a member of the "neurotrophin" family of growth factors and support the survival of neurons and the growth of new ones.

Ketamine blocks the specific receptors on dendrites that glutamate binds to, increasing the levels of glutamate within the synapse. This stimulates the release of BDNF. BDNF causes the dendrites to sprout new spines and axons to form healthy functional synapses once more.

The amino acid, **L-glutamine**, is the precursor to glutamate and increases glutamate in the neuronal synapses and in turn increases release of BDNF. Under the stimulation of BDNF, the dendrites regrow and synapses begin to function normally once more. Brain function and mood disorders improve. Glutamate is also converted to GABA, a major calming neurotransmitter in the brain.

The Autism Connection

Recently there has been interest in intranasal ketamine to treat some of the core symptoms of ASD. In a recent report, intranasal ketamine was used in an adult ASD patient with co morbid psychiatric conditions. "Despite extensive treatment, at presentation she suffered from social impairment, repetitive behaviors, sensory sensitivity, contamination fears, low weight, absent menstrual cycles, chronic purging, depressed mood, anhedonia, low energy, poor concentration, and chronic suicidality." In August 2013, the patient consented to begin clinical treatment with intranasal ketamine. Within 24 hours following each self-administered intranasal dose of ketamine, the patient reported significant improvement in mood, increased ease of interacting with others, more flexibility and tolerance of routine change, increased motivation, improved concentration, decreased suicidal thoughts, and feeling more connected to others.

This study is limited as it involved a single patient. A study is underway in Cincinnati to test low dose intranasal ketamine on adults with autism.

Ketamine Use in Autism Spectrum

DR. LOGAN WINK, CINCINNATI CHILDREN'S HOSPITAL

START DATE: 11/2013

Researchers at the Cincinnati Children's Hospital will conduct an open label a human clinical trial of intranasal Ketamine in adults with ASD using novel quantitative outcome measures of social and communication impairment.

Ketamine has a unique profile clearly differentiated from other glutamatergic modulators (drugs that support the glutamate receptors) studied in ASD to date. This profile, coupled with Ketamine's long safety track record and novel intranasal (IN) delivery system, make it worthy of investigation for treatment of the core features of ASD. As a generically available inexpensive drug, Ketamine holds significant promise to widely treat the core social and communication impairments that are the hallmark of ASD. The results of this study, if positive, would support the use of Ketamine with a demonstrated safety profile that is cost-effective to use.

If this pilot project demonstrates efficacy and tolerability of the drug, the next steps will include the following. 1) Design and obtain funding for a large phase II placebo controlled trial of Ketamine in adults with ASD. 2) Design a pilot study of Ketamine in children with ASD. 3) Publish the data on the pilot study for other researchers and clinicians to use to support patients with ASD.

Source: http://www.cureswithinreach.org/research/search-complete-research/research-projects/225-ketamine-for-autism

Intranasal Ketamine Treatment in an Adult With Autism Spectrum Disorder. Logan K. Wink, MD; Anne M. O'Melia, MD; Rebecca C. Shaffer, PsyD; Ernest Pedapati, MD; Katherine Friedmann, RN; Tori Schaefer, PhD; and Craig A. Erickson, MD. J Clin Psychiatry 2014;75(8):835–836 (doi:10.4088/JCP.13cr08917).

Functional Medicine Health Tests

Compared to traditional pathology tests, Functional Medicine Testing looks at identifying underlying health problems or weaknesses before they become serious pathological medical concerns. Some of the tests available include:

- Functional liver detoxification profile
- Organic Acid Test (OAT)
- Hair mineral and toxic metal analysis
- Gene testing: MTHFR and personalised gene profiles
- Comprehensive stool and biochemistry testing

Be proactive with your health. Visit my website for a for an explanation of the full range of tests available and which may be most suitable.