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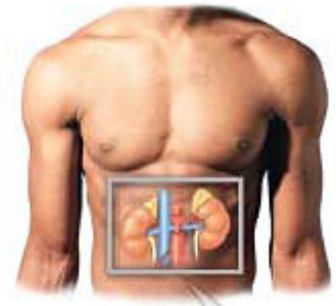
AUTISM SPECTRUM DISORDER

Autism and Adrenal Stress

An autism spectrum disorder (ASD) places the individual, the parents, and siblings under enormous adrenal stress. Prolonged periods of stress can fatigue your adrenal glands, resulting in biochemical and cellular changes which can affect many body systems, including immune function, blood sugar balance, energy production, thyroid function and hormone balance. The main purpose of the adrenal glands is to respond to stress and is known as the "fight or flight" response. These glands react to every kind of stress whether physical, emotional, psychological, hormonal, thermal, or biochemical. The function of every tissue, organ and gland in our body is affected by adrenal hormones.

The location of the adrenal glands within the abdominal cavity



The location of the adrenal glands atop the kidneys

A section of the left adrenal gland

The adrenals are two small glands, each weighing 3 to 5 grams, located above the kidneys, and are composed of two separate functional entities, each responsible for producing and releasing specific stress hormones. The outer zone, or cortex, accounts for 80% to 90% of the gland, and secretes the hormones, Cortisol, DHEA and Aldosterone. The inner zone, or medulla, comprises 10% to 20% of the gland, and secretes the hormones epinephrine and nor-epinephrine.

Excessive cortisol production can lead to a condition called Cushing's Syndrome and has the following associated symptoms:

- Stretch marks
- Easy bruising (also associated with low Vitamin C levels)
- Extra hair growth
- Loss of muscle mass
- Emotional problems such as depression
- Irregular periods
- Poor bone growth and repair
- Abnormal thyroid function
- Addison's Disease (which has the following associated symptoms such as low energy, joint pains, difficulty waking in the morning, low energy levels, weight loss, diarrhea and electrolyte deficiencies)

Aldesterone is the salt retaining hormone. Deficiencies in aldesterone may lead to low blood pressure and a high resting pulse as well the desire to eat salt. Low aldesterone will increase sodium loss via the kidneys and will reduce blood volume, causing low blood pressure, cravings for salt, and a reduced supply of oxygen and nutrients to the brain.

Excessive stress may cause an inability to appropriately respond appropriately to stressors, and may be the causative factors to many physical and sensory symptoms in children autism spectrum disorders. Sensory issues refer to how the brain processes and reacts to the environment and may lead to hyper-sensitivities (over sensitivity) or hypo-sensitivities (under sensitivity) to sensory stimuli such as light, sound, touch and textures, colors, busy places, new tasks or challenges, causing sensory overload. These coping difficulties in dealing with certain situations may be driven by adrenal output, but they can be addressed via nutrient support by optimizing adrenal function as well as sensory integration therapy.

Adrenal dysfunction can lead to multiple symptoms and conditions and impacts many other glands such as the thyroid and thymus glands, as well as upsetting blood sugar levels in the body. Heightened stress, anxiety and adrenal insufficiency and even exhaustion are commonly a major problem for our children.

Would a child who has poor verbal communication, but an ability to understand, have heightened frustration and stress? Would a child who may be living in pain but unable to tell us have heightened physical stress? Will a child who may want something, but cannot ask for it, have increased stress? Would a child with sensory issues to bright lights and loud sounds have heightened stress? The answer to each of these questions is obvious.

Does your child display any of the following signs and symptoms that may indicate adrenal fatigue or exhaustion?

- Avoids bright lights, doesn't like certain colors or avoids eye contact
- Does not like messy play or getting dirty
- Doesn't respond when spoken to
- Doesn't accept new tasks
- Has a very short attention span
- Very "faddy" with food such as food rejection
- Sensitivities to odors

- Hyperactive
- Displays stimming (self stimulatory) and repetitive behaviors especially when excited or anxious
- Obsessive-Compulsive Disorder (OCD)
- A craving for salt (Adrenal glands require high levels of sodium)
- A craving for sugar (Adrenal hormones stimulate the liver to produce glucose which upsets the blood sugar balance in the blood system)
- Increased heart rate at rest
- Increased allergies to food and environment (Elevated cortisol increase the allergic immune response)
- Chemical sensitivities
- Excessive sweating
- Dilated pupils
- Regular illness, swollen lymph glands and a slow recovery from illness (The immune systems response and is determined by the balance of cortisol and DHEA in the blood and stress reduces the production of Secretory IgA our first line of defence)
- Difficulty falling asleep
- Difficulty waking
- Isolation and wanting to escape busy, noisy environments
- Digestive disorders such as diarrhea and/or constipation (Elevated stress takes blood away from the bowel)

Adrenal fatigue affects every organ and system in the body. It is caused when your adrenal glands simply cannot meet the demands of stress whether physical, emotional, psychological, or biochemical and its optimal production of regulatory hormones becomes unsustainable. An analogy would be if you fed your child excessive glucose on a regular basis. Sustained insulin production would inevitably fail due to a fatigued pancreas and type 2 diabetes would result. If your child is exposed to elevated adrenal stress over and over again, the result will be adrenal exhaustion.

Testing for adrenal insufficiency can be problematic for children under the age of 14 years, since reference levels of salivary cortisol and DHEA are commonly inaccurate. One test which is free and will give a clear indication of adrenal stress is the adrenal papillary test. Shine a dimmed light into your child's pupil in a darkened room for 20 seconds and observe. The pupil should constrict and remain constricted for the full 20 second period. If the pupil fluctuates in size there is evidence of adrenal insufficiency.

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BUY PACKAGE

Adrenal Support Package

It is important to provide the nutrients required by the adrenal glands. The adrenal glands use more Vitamin C than any other organ or gland in the body. The adrenal glands also require sodium, the entire B complex, manganese, selenium, molybdenum, chromium, copper and iodine. Amino acids also are required, specifically L-Serine, L-Threonine, L-Tyrosine, L-Glycine and L-Phenylalanine.

Klaire Labs VitaSpectrum

A unique multi vitamin and mineral providing the essential nutrients for maximizing adrenal function.

Buy now

PRL MaxB-ND

Providing highly bio available probiotic fermented B vitamins essential for optimal adrenal function.

Buy now

PRL Premier Vitamin C

A 100% natural botanical Vitamin C formula with no synthetic vitamin C alternatives. Highly bio available.

Buy now

Pure Encapsulations Amino Replete

A blend of free-form amino acids provided in the ratios found naturally in high biological value protein sources.

Buy now

PRL AdrenaVen

A comprehensive nutraceutical formula designed to support healthy adrenal glands featuring two key blends: Cordy-Pro and Adrenal Pro for optimal effect.

Buy now

It is important to not only supply the necessary nutrients but also to reduce stressors, increase enjoyable activities, increase relaxation, breathing and gentle exercise, remove sugar, caffeine and salt. Increase sleep and eliminate energy wasters and as many identifiable stressors as possible.