

### **Blog 3 ADHD and Food RICH IN Zinc, Magnesium and Copper.**

ADHD is one of the mysteries of Childhood “differences” that has no real diagnosis only symptoms that lead to a child being diagnosed as “ADHD”

As a teacher for 30 years, I can attest to the increase of this condition in children and its impact on the student, the classroom and the family.

Additional statistics also support the increase with estimates being around 5% of children between 6-9 years old with some estimates up to 16%.

What Has Science Said for Food and ADHD

However, Science is also playing a role with noted in ADHD children is generally lower levels of Zinc, Magnesium and copper in the Urine.

- sensory issues with food
- Brain Scans indicating differing brain patterns.
- Gross and Fine motor skills issues

More recent studies have focused upon what may lead to the differing brain Patterns, sensory and motor skills issues and the most prominent are studies focused upon Zinc, Magnesium and Copper deficiencies

ZINC

According to Lepping and Huber and supported by 55 studies the important brain hormone dopamine transporter is regulated by zinc ( $Zn^{2+}$ ). According to the study The fact that dysfunction of the dopamine transporter is involved in the pathogenesis of attention-deficit hyperactivity disorder (ADHD) is interesting in the context of studies that suggest the involvement of zinc deficiency in patients with ADHD. It seems likely that zinc supplementation in zinc-deficient ADHD patients improves the binding status of insufficiently occupied zinc binding sites on the dopamine transporter.

Magnesium

According to further studies ( see research section of [www.naturallynurtured.com.au](http://www.naturallynurtured.com.au)), The findings of this review support previously published evidence stating that serum magnesium levels are lower in ADHD patients compared with their healthy controls. The d review note that In conclusion, the meta-analysis reports that children and adolescents with ADHD have significantly lower serum magnesium levels compared to their healthy counterparts.

Copper, Zinc and Magnesium

A review of Copper, Zinc and Magnesium in children with ADHD. A Study in the Journal of medical Human Genetics noted Children with ADHD have lower levels of zinc, copper and magnesium compared to both laboratory reference ranges and to normal controls in both hair and serum. These deficiencies are correlated with the core symptoms of ADHD.

### **Can nutritionally rich foods in Zinc, Magnesium and Copper assist children with ADHD symptoms?**

The research states that it is possible Zinc, Copper and Magnesium will support improved brain and cognitive function in children with ADHD

### **Decreasing rates of Nutrition in food**

The rates according to the groundbreaking 2004 study noted that magnesium had decreased in foods in by 40%, Zinc 33% and Copper 34%. ( See Research page [www.naturallynurtured.com.au](http://www.naturallynurtured.com.au))

### **Naturally Nurtured Proposed Study Food as Medicine for ADHD?**

There are many concerns of the side effects of drugs for ADHD children. Having had personal experience with some less than positive side effects on children I have taught over the years:

I am proposing to commence an NNA study with a small group of children in an observational study.

NNA will supply the Singapore families with free NNA nutritionally rich foods.

Over a period of 2 months reviewing the potential changes in some of the cognitive and behavioural responses of the children using phone app and messaging with the support of Monash University for analysis of the results.

If the results support the positive results from studies undertaken by Kelly Dorfman MS LND ( Cure your child with food), this first study will provide the basis for extended work on food as a compliment to the other strategies used by the health professionals to assist children with ADHD.