

The Dangers of Pesticides in Our Most Vulnerable Population, Children

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As parents, we all do the best we can to provide our children with a nutritionally balanced diet that allows them to eat a wide variety of healthy foods. This is easier said than done in some cases, as we also know that kiddos can be extremely picky and budgets can be prohibitive. Regardless, we tend to feel good about the foods we provide to our young ones when they happily eat a diet full of whole foods like fruits and vegetables.

One would think that if your child is a fan of fruits and vegetables, you are giving them the optimal fuel needed to grow and develop properly. However, there have been many findings in recent times that cause us to take pause and take a deeper look into what is actually going into childrens' bodies when they ingest seemingly good-for-you produce and food products.

IN THE BEGINNING

This driving curiosity got started in me several decades ago when I was growing up on a farm in a regional community in the 1960s and 70s. As I became older and more observant, I began to notice some strange happenings within our region and with people that I knew. By the 1980s and 90s, I sadly lost 6 very close family friends to cancers that presented with very unusual symptoms. This was very unsettling to me and my family as well.

Upon further investigation, I uncovered vast reports of an increase in childhood cancers and other health maladies that were striking many individuals in the areas near where I resided. It was around this same time that researchers started to investigate a causal relationship between pesticides and other chemicals in our diets and this surge in cancers and other health problems. Oddly enough, their research was inconclusive, much like the research done in the tobacco industry of the 1950s. I didn't buy the results for a second.

My skepticism was further fueled by the students that were in the high school classes that I was teaching. I observed a marked increase in behavioural issues, anxiety, and general unwellness within my student population. Additionally, schools throughout the region reported a vast increase in "ADHD" students within the classroom. This was certainly disheartening.

SOME CONCERNING FINDINGS

Presently, the outlook has not improved. In the last 35 years, there has been a large statistical increase in ADHD behaviors along with other cognitive and behavioral issues in students, including learning disabilities and anxiety. Nearly 16% of students are now officially diagnosed as falling into one or more of these categories. As an educator, I experience the struggles these children face each day, as well as the woeful lack of resources to help them to succeed. Even medications only show mixed effectiveness.

Even though the research regarding the link between chemicals in foods and these aforementioned issues is supposedly inconclusive, many undeniable facts cannot be ignored by parents, teachers, and the medical professionals in charge of caring for our children. There is a plethora of research that supports the following:

- There is a greater impact on children in regards to chemicals and irritants in foods because their body mass is far less than adults, thus meaning their ratio of consumption is higher than grown-ups.
- According to the “Environmental Working Group” Pesticides are applied directly to foods you eat and remain there even after the food is washed, cooked, and, in some cases, peeled. EWG’s analysis of U.S. Department of Agriculture data found that two-thirds of conventionally grown produce has detectable pesticide residues. Pesticides are designed to kill living organisms such as weeds, mold, and insects. Our bodies are living organisms, so to think that these chemicals are completely harmless seems naive.
- Research have identified pesticides and chemicals in food linked to cancer, hormone disruption, anxiety, cognitive problems, and behavioural issues (EWG.ORG) More information can also be found on our site <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5132627/pdf/EHP1040.pdf>

There is even more conclusive evidence in regards to children specifically dealing with ADHD and other health maladies.

- Children with ADHD have been found in Urine tests to have higher levels of pesticides and high levels of key minerals or Zinc and Magnesium. Additionally, one study with a nationally representative sample showed increased odds of ADD/ADHD for 8-15-year-olds with increasing levels of OP pesticides metabolites in urine. (Bouchard et al. Pediatrics. 2010 Jun. [www.ncbi.nlm.nih.gov/ PubMed/20478945](http://www.ncbi.nlm.nih.gov/PubMed/20478945))
- Pesticides have been shown to affect a variety of body systems, including reproductive, endocrine, immune, and respiratory (Gilden, Huffling, & Sattler, 2010). However, as developmental disorders (e.g., autism) and behavioral conditions (e.g., attention-deficit hyperactivity disorder [ADHD]) (Xu et al., 2011) become more prevalent, it is increasingly important to assess possible links between environmental exposures and neurological or behavioral outcomes in children
- Children of preschool age are expected to reach neurological developmental milestones (e.g., verbalization, ambulation), but research suggests that pesticides may interfere with that. (Liu and Schelar Page 3)

As you can see, even this “inconclusive research” is quite concerning and should prompt parents and any adult who is responsible for taking care of children to pause and evaluate what can be done to try to reverse these horrible statistics. I know it stopped me in my tracks and inspired me to create Naturally Nurtured Australia, an organisation with a mission of providing families with affordably priced produce that is free from chemicals and heavy metals, in addition to being nutritionally rich.

VOLUNTEERS NEEDED

Another goal of NNA is to work with researchers to further investigate the link between pesticide-laden food and cognitive, neurological, and behavioural issues in children. We are excited to be working with Monash University’s Brilliance in Children’s Nutrition/Food is Medicine Program to test this link in a new observational study.

We are looking for child volunteers, aged 4-8 with ADHD behaviours to eat our nutritionally rich diet, free from pesticides and other harsh chemicals. Caregivers will then be asked to complete observations comparing behaviours on this diet to previously observed behaviours.

END GOAL

We hope to prove an observational difference in behaviour for children that will enable NNA to undertake a wider study to support more holistic research on ADHD. In turn, we hope our findings encourage the government to then provide the correct support to parents, medical professionals, and teachings to assist with kids being diagnosed with ADHD.

STAY TUNED

I am so glad you found us here, and look forward to diving into this topic further in upcoming blogs. Stay tuned to learn more about the importance of continuing research and along with ways you can help your child with ADHD, cognitive, emotional, and/or behavioural issues when it comes to diet. I look forward to seeing you soon!