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**Are food politics and the quality of our food related to the increase in food allergies in children? How can we protect the next generation and alleviate symptoms in children that are affected?**

**Target Audience:** Parents with children with food allergies, interested health care professionals

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## **I. Introduction**

### **I.I. Observation**

Never in human history have our agricultural practices and eating habits changed in such a short amount of time, and in such drastic ways; In the name of modern agriculture and feeding a growing world population, genetically engineered foods entered our food system. Pesticides are dumped into the soil and on our food. Packaged foods and microwavable dinners are on our plates. Our body no longer recognizes foods and the food like items we consume daily and feed our children. For the first time in two decades, the children of this generation will not outlive the life expectancy of their parents. <sup>1</sup>

When I look around, I see children with food allergies, children with ailments and diseases that were unheard of 30 years ago. Asthma, allergies, ADHD, autism, ear infections, rashes, eczema, it happens to the best of us. This paper is about why this is happening to our children and how we can change it. If you see what I see, if you have child with a food allergy, if you or someone in your family has fallen through the medical system, then this paper is for you. If you are a health care provider, a nurse, a medical doctor or a naturopathic doctor, I am hoping this paper is the start for you to do your own research and a start to look at your patients from a different angle.

I for one am so frustrated with the food politics all over the world. We need to re-build our food system so we can improve the health of future generations. I want children to have the best shot at a healthy life, they are our future: We need healthy, conscious and smart children to lead our countries into peace and well being.

### **I.II. Data**

I am going to assume we are all aware of the increase in childhood illnesses and food allergies. Our observation is backed up by DATA.

In the United States, in the last twenty years, we have seen an epidemic increase in allergies, asthma, ADHD and autism, including a: *400% increase in food allergies (1 in 13 children has a food allergy), 300% increase in asthma (with a 56% increase in asthma deaths), 400% increase in ADHD and between a 1,500 and 6,000% increase in autism.*<sup>2-</sup>

The male/female ratio for food allergies is 2:1 and the male/female ratio for asthma is 3:1.

On the CDC (Center for Disease Control) website, they state that food allergies have increased by 18% from 1996 to 2007.<sup>3</sup> Their definition of food allergies is the IgE kind, a true live threatening food allergy. Food allergies are going up for every age category and ethnicity.

In February of 2011, the European Academy of Allergy and Clinical Immunology (EAACI) released their data on food allergies and according to their press release; food allergies in children from 0-5 years have doubled in the last 10 years. About 17 Million Europeans suffer from food allergies. There is also a 7-fold increase in admittance to the emergency room for severe anaphylactic reactions.<sup>4-</sup>

**Worldwide, developed and developing countries are seeing an increase in allergies in children.**

Government regulated statistics usually only pick up IgE allergies. It is their definition of a food allergy and in case of an anaphylactic reaction, these children are admitted to the emergency room and are therefore caught in the system and statistically recorded. But this paper is not just about IgE allergies. The numbers presented in official statistics are much lower than the actual occurrence of food allergies in children. Most allergies are never reported to an agency. Intolerances, IgG allergies and sensitivities are not recognized as a true food allergy in the Western Medical system. As parents and concerned healthcare practitioners we need to figure it out ourselves.

### I.III. Thesis

Food politics and the quality of our food are clearly related to the increase in childhood food allergies. Our agricultural practices have changed too drastically and include a wide range and large quantity of pesticides, genetically modified foods and concentrated animal factory operations (CAFOs). Our eating habits are contributing to the problem due to the convenient nature of unhealthy, processed and dead foods. We can protect the next generation by making better choices and rebuilding the food system. Children that are already affected can be helped with nutrition therapy by identifying the offending foods and rehabilitating their immune system through gut healing and consuming real, organic, minimally processed foods.

## **II. Are we allergic to the food or what has been done to it?**

Our food, or the food like items we consume daily are grown with many different pesticides. Some are genetically modified. Chickens are washed in chlorine to supposedly make them ‘cleaner’ and ‘safer’. Crops are grown in depleted soil; meals are warmed up in plastic bags. Animals are raised in confined feeding lots, fed genetically engineered feed and antibiotics. Generally, our food lacks nutrients and is cheap. Because our food is so cheap and so nutrient deficient, food coloring, artificial flavors, and synthetic vitamins and minerals are added.

In this part of the thesis I will cover the most used pesticide Roundup, genetically engineered foods (GMOs) and add a few words on modern meat production and food additives.

### II.I. Roundup (glyphosate)

Pesticides, Roundup specifically, I believe to be the biggest culprit of our misery today. It is the number one used pesticide in modern agriculture and the most understood and

researched. Also, with its increased use over the last two decades, modern diseases have gone up tremendously simultaneously. While correlation data is no proof, it deserves a second look and concern for further scientific research. Moms and nutritionist, like myself, have seen our kids get better on organic and real food. We are long convinced that the correlation data is not just a correlation.<sup>5</sup>

Glyphosate is the active ingredient in Roundup, a Monsanto product. Glyphosate is a powerful broad-spectrum herbicide and is widely used in commercial agriculture. It can also be purchased by anyone as a residential product, to use in private backyards, to kill the dandelions. It is a very effective weed killer and thought to be pretty safe for humans. Genetic engineering has brought us Roundup ready soy, canola, sugar beets, corn, cotton and alfalfa. Farmers can spray these crops with Roundup extensively without harming them. Only the weeds in the field are being killed. Now that nature is always a step ahead of human intervention, super weeds have evolved. More spraying to control the weeds is necessary and new pesticides and pesticide resistant crops appear on the market. (Monsanto's newest invention is the 2,4-D resistant crop with 2,4-D being an ingredient of Agent Orange used in the Vietnam War.)

Glyphosate has a very unique way of killing the weeds. It uses the shikimate pathway of the plant (and also the insects trying to feed on the plants) where it suppresses the EPSP (5-enolpyruvylshikimate-3-phosphate) synthase. When glyphosate suppresses the EPSP synthase, the plant cannot synthesize the aromatic amino acids tryptophan, tyrosine and phenylalanine.<sup>6</sup> These amino acids represent 35% of the plant's dry mass. By interrupting the process, the plant withers. Humans do not have that pathway; therefore glyphosate must be safe, so the industry claims. At least that is what the common 'consensus' of the industries' scientific community claims.<sup>7</sup> Turns out that the bacteria in our gut do have this shikimate pathway.

If our gut bacteria cannot synthesize tryptophan, tyrosine and phenylalanine, we lose essential precursors for serotonin, melatonin, melanin, epinephrine, dopamine, thyroid hormone, folate, coenzyme Q10, vitamin K and vitamin E. We depend on these elements for every metabolic action in our cells. Any illness, disease or ailment could be caused by the absence of the precursors.

Glyphosate also causes metal chelation. Chelation is the binding of heavy metals. It binds minerals such as iron and cobalt, copper and zinc causing a nutrition deficiency in the plant. The nutrition deficiency in plants opens them up to disease. Nutrition deficiency in humans is the core issue of disease. Manganese deficiency was found in cows when only fed GE feed. Glyphosate's interference of the shikimate pathway chelates the manganese, which is a catalyst for the EPSP synthase. Manganese deficiency is related to a reduction in Lactobacillus in the gut. Lactobacillus is an important probiotic living in our intestine. Its reduction or deficiency is linked to anxiety disorders but also Autism, Alzheimer's Disease, depression, anxiety syndrome, all neurological issues that are associated with glutamate over expression in the brain caused by the deficiency of Mn.<sup>8</sup> Manganese is one of 14 essential trace minerals, it plays a role in antioxidant protection, glutamine synthesis, bone development and sperm motility. An overdose is neurotoxic, a deficiency the causation of so many problems (including male infertility).

Glyphosate is also registered as an antibiotic.<sup>9</sup> Antibiotics are made to kill bacteria when there is a bacterial infection. Unfortunately, they also go after the beneficial bacteria we have in our intestines. Our intestinal flora is the groundwork of our health. If the microbiome, that is the many beneficial bacteria we have in our digestive system, is disturbed, we are inflamed and can not manufacture essential vitamins and minerals, we cannot digest properly and leaky gut is often the result. Leaky gut plays an important role in allergy development: our gut is supposed to have tight junctions that only let fully digested particles into the blood

stream. Those junctions though are inflamed and get leaky when inflammation occurs and undigested particles can enter the blood stream before they are ready. Antibody production and inflammation anywhere in the body occurs. Glyphosate residues are found in crops that were heavily sprayed and are still found in already processed food products.<sup>10</sup> It is so widely used and available; it no longer just washes off.

If we are killing our good gut bacteria we open up our body for disease. To make it clear how important our microbiome is, let me tell you this: Our gut bacteria outnumber the cells in our body by 10 to 1. We have 10 times more bacteria in our gut than cells in our body. This makes it clear that we must understand: we cannot sacrifice our gut.

Glyphosate also interferes with cytochrome P450 enzymes. These enzymes play very important roles in the body's ability to detoxify through the liver. All the toxins that enter the body need to be detoxified by the liver. Failure to do so causes toxicity and severe health issues. The International Agency for Research on Cancer (a WHO department) classified glyphosate as a possible carcinogenic.<sup>11</sup>

*A paper published in 2014 suggests that glyphosate within its formulation of Roundup, with adjuvants and confidentially kept inerts is up to 1000 times more toxic than by itself.<sup>12</sup> -*

## II.II. Genetically engineered foods (GMOs)

Definition: (by dictionary reference) "A GMO is an organism whose genome had been altered by the techniques of genetic engineering so that its DNA contains one or more genes not normally found there."

In other words, DNA sequences with specific traits from one species are transferred into the DNA of another species. Typically, the DNA inserted (with a gene gun) into the crop is from bacteria. Genetic engineering or modification does not occur naturally; in nature different species do not breed. Genetic engineering is not the same as hybridization.

Genetically modified crops are engineered to withstand the application of certain pesticides. They are either made pesticide resistant or they are designed to produce their own pesticide. Pesticide resistant GMOs are Roundup ready crops such as soy, canola, cotton, sugar beets and corn. Pesticide producing crops are Bt-soy, -corn and cotton. Bt is short for *Bacillus thuringiensis*, soil bacteria known to kill the European corn borer, corn root worms and Lepidopteron insects. Bt can also be sprayed on crops. It is even used in organic agriculture, it washes right off. When used in genetic engineering it is inserted into the DNA of the plant where it disrupts the stomachs of the insects feeding on the crops. It no longer washes off, and due to their pesticide producing properties; the crop itself is registered as a pesticide with the EPA (Environmental Protection Agency).<sup>13</sup>

There are also genetically modified papaya, zucchini Squash, alfalfa (animal hay), potatoes (since 2015 again) and the arctic apple (doesn't brown, on the market since 2016). Other sources of GMOs are products manufactured from already mentioned genetically engineered crops and some are totally artificially produced genetically engineered ingredients:

- Dairy products from cows injected with the GM hormone rBGH (recombinant Bovine Growth Hormone)
- Food additives, enzymes, flavorings, processing agents, aspartame and rennet
- Meat, eggs and dairy products from animals that have eaten GM feed
- Honey and bee pollen that may have GM sources of pollen
- Vegetable oils, fats and margarines from crops that were genetically engineered
- Soy flour, soy protein, soy isolates, soy isoflavones, soy lecithin, vegetable proteins, textured vegetable, tofu, tamari, tempeh, and soy protein supplements.
- Corn flour, corn gluten, corn masa, corn starch, corn syrup, cornmeal, High Fructose Corn Syrup (HFCS),
- From sugar beets: sugar, inverted sugar syrup, molasses, caramel and caramel coloring is manufactured.

In Europe, GMOs are not cultivated but plenty of them are imported for food and animal feed. As per a press release of April 24th 2015, 10 new GMOs were added to the 58 already authorized crops, 7 were renewed and 2 GMO cut flowers (not for food or feed) were added as well. <sup>14</sup> -

Two aspects of GMOs that cause health issues in animals and humans are discussed here.

1. Pesticide use. GMOs are full of pesticides. Roundup ready crops were designed to reduce pesticide use in the field by making the crop resistant. The industry claims that having a pesticide resistant crop reduces the use of the spray on chemical because it only kills the weeds and lets the crop grow just fine. The data shows otherwise: according to a research article by Environmental Sciences Europe, pesticide use has been increased since GMOs are grown commercially: Herbicide-resistant crop technology has led to a 239 million kilogram (527 million pound) increase in herbicide use in the United States between 1996 and 2011. <sup>15</sup>-

Dr. Don Huber, Professor emeritus of plant pathology at Purdue University said in an interview with Food Integrity Now on April 8th, 2014: "If you have crops that are made to be tolerant to pesticides you no longer have a limit for pesticide use." and "We've pretty much sacrificed an entire generation of children. The longer we go, the more damage that is going to accumulate." <sup>16</sup>

2. Genetic Engineering in itself. Genetic Engineering is a very imprecise process. Some scientists even call it a 'shot in the dark'. Using a gene gun, one specific trait of DNA from a bacterium is inserted into the DNA of every cell of a crop. To this day, we do not know where exactly in the DNA the new sequence ends up: it is imprecise, uncontrolled and causes mutations. <sup>17</sup>- A little history: It was always thought that one genome (a sequence in the DNA) is responsible to create one specific protein. In 2003 when the Human Genome Project was completed, we learned that human DNA only has about 20'000 genomes but our body is

made of about 100'000 proteins.<sup>18</sup> We can no longer assume that one genome transported into a new DNA only creates that one protein. It may communicate with other genomes, creating totally new proteins that are absent in the original 'mother' plant. At the GMO symposium on November 10th in Bern, Switzerland, Dr. Judy Carman said that they have found that in MON810, Roundup-ready corn, 44% of the Amino Acids in the plant are different from the non-GE version.

To add to the problem: A promoter gene, typically a virus is usually added additionally with the process of genetic modification. The promoter gene helps activate and locate the inserted gene. While it is used to activate the new gene inserted it may also activate other genes within the plant that were silent before: possibly creating new proteins. When our body is exposed to new proteins we could have an immune reaction to it. We either create an inflammatory environment to get rid of the intruder or create specific antibodies to eliminate the new protein. Immune reactions to antibodies are known to become worse the more we are exposed to them. GMOs may very well be one of the factors for the fast increase in allergies in children.

GMOs' long-term health effects have never been tested, not on animals, not on humans. We do have some good livestock feeding studies to fall back on and they call for great concern. One of them is the pig feeding study done by Judy A. Carman of Australia and Howard R. Vflieger, USA (and others) that clearly showed the inflammation of the stomach in pigs fed GE feed.<sup>-19</sup> But not just inflammation of the stomach was clearly increased in pig fed GE feed group but also in the small intestine, stomach ulcers occurred, a thinning of intestinal walls was apparent.

Livestock studies are the studies we should look to. Yes, humans are not animals, but we come much closer to a pig than a mouse. Also, livestock's feed and environment is 100% human controlled. We know how they live and what they eat, how they were raised. A farmer

can feed GE feed for a few months, report the behavior and health of the animals and then change to non-GE feed and do the same. We can change one factor at a time, versus in humans so much goes into finding a one cause for one certain problem.

There is anecdotal evidence of parents telling me that their child can eat organic soy and corn just fine, but if a package is not labeled (assuming it is GE soy or corn) the child gets a rash around the mouth or breaks out in hives. Allergy specialist John Boyles, MD used to test his patients for soy allergies and has come to the conclusion that no-one should ever eat soy again anyways, confirmed allergy or not, because it is so toxic. Only the organic version is allowed on his diet. In the United Kingdom, they evaluate food allergies on a yearly basis. In March of 1999, researchers at the York Laboratory discovered that soy allergies had increased by 50% compared to the previous year. It was just recently that the UK started importing GE soy from the United States. “We believe this raises serious new questions about the safety of GM food”, said John Graham, spokesman for the York Laboratory.

### II.III. A few words on meat production and food additives.

CAFOs, Concentrated Animal Feeding Operations, are today’s farms. May it be cattle, chickens, pigs or turkey, they are all kept confined in close quarters. They are fed genetically modified feed, are given antibiotics for growth and for disease protection and growth hormones so they can be slaughtered faster. Animals only live a few months until they reach their slaughter weight and go off to become human food. Ironically, these animals are so unhealthy because they are fed GE feed they cannot live longer. Pigs’ stomachs become inflamed <sup>-20</sup> and cows on farms where previously no health issues have been known, become violently ill. <sup>21-</sup> Cows are supposed to eat grass all their lives, otherwise the fat and antioxidant content of their meat changes.<sup>22-</sup> Chicken eggs from factory operations do not even come close to the folate level an egg should have, compared to an egg from a pasture

raised happy chicken. In fact, the USDA egg had 47 mcg of folate compared to an egg from Polyface Farms in Virginia at 10200 mcg.<sup>23</sup>-We truly are what we eat and we also are what the animals ate.

Food additives such as food colorings, preservatives, monosodium glutamate, nitrate, nitrite and aspartame are substances added to food that are not food. They can cause an allergic reaction in children through a chemical process, not the immune system. Some of these substances are excitotoxins. They are passing through the blood-brain barrier interfering with our neurotransmitters, altering how we feel and how we behave.

Every day foods contain these substances and children can react to them chemically or with an immune reaction through an IgG, IgE, intolerance or sensitivity response. Children who are already sensitized to certain food antigens and have a food or environmental allergy are especially prone to react to a food additive.

To make bland and processed foods look pretty and appealing to children, food coloring is added. In the United States, food colors used to be made from crude oil and are now petroleum based. From red 40, yellow 5, blue 2 to brilliant blue and sunset yellow, there is a whole rainbow of problems. Find the list, “A Rainbow of Problems”, from 2010 in the Bibliography section.<sup>24</sup> - Food colorings are linked to ADHD in children<sup>25</sup>- and contain carcinogenic ingredients such as benzene.

#### II.V. Wheat

**“The problem is not the wheat, but what we have done to it. And the story of wheat is the story of food.”**

Cindy O’Meara, Nutritionist, Creator of “What’s with wheat?” Documentary.<sup>26</sup>

Every time I tell a family that their best shot at good health is to cut out the wheat, I get the rolling eyes. But we have eaten bread every day for hundreds of years....

We have eaten bread for hundreds of years, and that is not long enough. Our genetics take 500 plus years to adapt to new environments. Unfortunately, the wheat changed faster than our genetics. Wheat used to grow in high stalks. Today it is short, contains more grains and is sprayed with Roundup upon harvesting, as a drying agent. The problems associated with Roundup are discussed above and apply to any food product treated with it or the soil treated with it before planting.

Fact is, the wheat we eat today is far from the wheat we used to eat. Wheat grains were dried, fermented, processed into flour, all by leaving the kernel intact. It took days to make a great loaf of bread. A whole-wheat kernel (the wheat germ) has lots of protein, enzymes, fats and fiber. Fermentation reduces the anti-nutrients in the plant so we can digest it better. Today, the processing goes so fast, leaving the flour without fiber and protein, but the anti-nutrients are still in there because the fermentation process is absent or too short. By creating white flour, we strip the grain of its nutrients. It has no nutritional value. Only empty calories are left. Adding synthetic vitamins and minerals back into the flour is not the same.

Another problem is the hybridization of the wheat crop that happened in a laboratory. Hybridization in the field is not the problem and not what we are talking about here. In the lab, different wheat grains from different countries that would have never bred naturally have been used to make the 'perfect' wheat. Since a new-bred plant is never tested for new proteins that it may produce (after all the DNA communicates to synthesize proteins) it may also cause our body to react to new proteins that are quite possibly created in the process.

Wheat is probably the most problematic food in the diet. Hybridization, its agricultural practices, chemical processing, and the overdose we have on wheat is astonishing. Wheat is in many processed foods, skin care, even playdough. Wheat is used to make sugars, starches and vitamins. The sheer overdose of wheat is causing issues, while it replaces nutrient rich food we could be eating instead. The sugar in wheat itself, fructan, turns into fructose and is

responsible - because of its overdose - for fructose intolerances. Fructose intolerance is one of the top causes of inflammatory bowel syndrome. We use the wheat in great amounts; strip it of its nutrients, all the while destroying the system (our digestive tract) that is supposed to digest it.

And again, our children are affected the most. Consuming the wheat how we know it today is causing inflammation. Half way through digestion, wheat proteins turn into polypeptides. These polypeptides, if someone has an inflamed gut (leaky gut), get into the blood stream and have found to be able to penetrate the blood - brain barrier. The brain is very sensitive to a wide variety of substances and therefore that blood brain barrier opens only to a few select substances. These wheat polypeptides bind to the brain's morphine receptors, the same receptors used by opiate drugs. Wheat is one of the few foods that CAN alter behavior. It can make us addicts and generates withdrawal symptoms when we remove it from the diet. Luckily, only at first: Once we are through the first few days, we start to feel so great. Brain fog lifts and children literally behave better. It is crazy thought, but everyone who has seen a child with a gluten sensitivity that reacts with behavioral issues knows this to be true. Children on the autistic spectrum, with ADHD, asthma and allergies (the 4-A disorders as described by Dr. Kenneth Bock<sup>27</sup>) have digestive issues such as leaky gut or inflammatory bowel disease. The most important step to recovery for those children is to remove the wheat. Many children are allergic to wheat but do not have celiac disease.

There is also a rise in celiac disease, especially asymptomatic cases. If someone suffers from constant diarrhea, the primary medical doctor might get the idea to test for celiac, however, if you 'just' have low iron, headaches, are hungry all the time, have no energy and brain fog, the big picture might be missed and the patient ends up with a prescription for antidepressants instead of a celiac test.

Celiac is an autoimmune disorder with the involvement of gluten sensitivity. When a celiac patient consumes gluten-containing grains, the body's own antibody attacks the villi of the small intestine. The antibodies are directed at body tissue itself (autoimmune) but the trigger comes from the outside: gluten. By attacking the villi, inflammation occurs and nutrients cannot be absorbed. Undiagnosed celiac can lead to severe nutritional deficiencies.

Studies show coeliac disease to be a common disorder, possibly affecting 1 in 200 of the general population, the majority of patients being diagnosed in adulthood.<sup>28</sup> Celiac is one of the most under diagnosed hereditary autoimmune disorders. Diagnosing celiac in children is possible too. If celiac disease is suspected and blood draw is scheduled anyways, parents can choose to have the child tested as well. Because this disease also has a genetic factor, one might argue there is nothing we can do about it. But there is. Our genes are protected by 'sleeves'; Environmental inputs and life circumstances affect whether we lose that sleeve and our genes are being expressed or not. Chemicals in the environment, pesticides in our food, other allergies, and emotional and physical stress are all factors that affect our gene expression. It is believed that the rise in celiac we are seeing with very atypical symptoms, is not due to the fact that more people have the gene for it, but that more people's genes are negatively affected by the environment. It is safe to say that the massive amount of Roundup used in the production of wheat, is of great concern for the increase in celiac disease and non-celiac gluten reactions.<sup>29</sup>

## II.VI. Peanuts

Peanut allergies are a special case. Between 1997 and 2007 they have tripled so that in 2007 over one Million US children were allergic to peanuts. The number today can only be higher. Peanut allergies are of the IgE kind, a true allergy with immediate reactions and possible anaphylaxis. It is the allergy we lost most children to.

The peanut allergy epidemic is also seen in Australia, Canada and the United Kingdom. In the early 1990s, peanut-allergic 4 and 5 year olds started school and puzzled educators and communities and caused fast change in eating habits, school lunch management, class snack management and birthday party treat policies to keep them safe.

To become anaphylactic to any substance, the immune system has to be set up for it: through ingestion, inhalation, through broken skin or injection we can be sensitized to a substance and become allergic.

Over a hundred years ago Nobel Laureate Charles Richet demonstrated that injecting a protein into animals or humans causes immune system sensitization to that protein. - Definition of Sensitization by the National Academies of Sciences, Engineering, and Medicine: "Sensitization is a condition in which an individual produces detectable IgE to a particular allergen or allergens. It precedes and is required for the clinical manifestation of a food allergy, but not all individuals with detectable IgE will experience a food allergy reaction to the allergen recognized by that IgE." <sup>30</sup>

Because the hygiene hypothesis has been debunked (yes we are too clean and we do kill the good bacteria that protects us from many environmental intrusions but it does not explain the sudden global increase in food allergies to peanuts) and the amount of peanuts eaten in the US and around has not changed, different ages on peanut introduction and abstinence from peanuts during pregnancy has not brought us any further either, we must follow the injection theory. For the injection theory, vaccinations come to play.

History has shown us that for a sudden global mass allergy to happen, sensitization through injection is what actually is happening. The story of the penicillin anaphylaxis due to their use of cotton seed oil and later peanut oil has shown how mass allergies are created and how suddenly a large number of humans can be allergic to the same food while intake with food has not changed at all. <sup>31</sup>

New vaccine policies and an increase in injections in young children unfolded in front of our very eyes:

In 1985, vaccination rate of preschool children under four years of age has only been at about 55-65%. The costs were too high for many and the inconvenience to show up at a pediatrician's office for single shots too high. Between 1991 and 1993 the goal was to rise the national vaccination level among preschoolers to 90% by the year 2000. Vaccination action plans were set in place and the US was on course with the WHO expanded program on immunization spending 98.2 million USD in one year. The new schedule also had to include new vaccines, because so far only MMR, DTP and an oral polio vaccine was given to children around 4 or 5 years old.

The IOM (Institute of Medicine) proposed a ranking system for "disease of importance" based on the expected health benefits to be achieved by the reducing morbidity and mortality to the specific disease and the anticipated net savings of health care cost. This ranking system put Hepatitis B to the top of the list, Hib (Haemophilus influenzae type B) followed closely. New vaccines (Hib and others), new adjuvants to create higher antibody counts, earlier vaccinations, larger number of shots in one syringe (up to 5 because it is cheaper), undisclosed adjuvants and even unlicensed combination shots: it changed the game. But back to the peanuts now: There has been an issue with labeling and peanut oil that is generally recognized as safe (GRAS) was awarded said status. While oils usually do lack protein, it is absolutely no guarantee that there is no protein left. It is also not tested, because of its GRAS status obviously. Food proteins in vaccines are in such a low amount, they have not to be labeled on the package insert either, but only because they are not labeled doesn't mean they are not there: Vaccines and injections contain egg, casein, gelatine, soy, agar etc. but also ingredients such as polysorbate 80 and sorbitol which are manufactured using food

sources including peanut oil. Peanut oil is actually used to manufacture oleic acid used in the manufacture of polysorbate 80.

Some vaccine viruses are grown on egg cells: it is impossible to prove that the protein is not in there anymore. With children given up to 5 shots at once, the injected proteins from different foods can cause all kinds of sensitization. No safe levels for allergens contained in vaccines have been determined, not by the FDA, not by the United States Pharmacopeia or the vaccine manufacturer (in this study this is Sanofi Pasteur).

Only when food allergy is a side effect of vaccine and is listed in the package insert, the pediatrician or other administering medical professional will have to report food allergy sensitization or reaction after vaccination. This will create a database. The precautionary principle is overlooked here, with so many children at risk, food protein residues in vaccines needs to be a topic of research and with public safety at risk, government agencies have to react.

### **III. Food Politics**

The top nine foods consumed in the United States, rated by number of calories are:

*Full fat Cow's milk*

*Two percent-fat cow's milk*

*Processed American cheese*

*White (wheat) bread*

*White (wheat) flour*

*Rolls (wheat)*

*Refined sugar*

*Soft drinks/fruit juices*

*Beef*

American's essentially eat dairy, wheat and red meat.

Eating the same foods with every meal is one of the causes for developing a food allergy.

After what we have learned in the previous chapters, the quality of the foods listed is questionable. Food politics plays a part in the amount of certain foods we eat and also the quality of said foods.

**The dairy industry:** To combat hunger and nutrition deficiencies in the First World War, Americans overproduced dairy to manufacture milk powder to ship it overseas for the soldiers. After the war ended, most farmers and manufacturers were not going to change their practices. Farmers had already gotten rid of other livestock and other commodities: instead of producing less milk, they promoted the consumption of more milk products! Dietary guidelines recommended 4 glasses of milk per person, per day. School lunch programs were invented, and serving a cup of milk to each student was part of that program. It still is to this day. Milk is also available with strawberry and chocolate flavor. From my own experiences, most students do not drink it, sometimes the milk is frozen - so not drinkable in the first place - and gets thrown in the trash. A huge sacrifice to the environment.

And still, milk is produced in surplus. The government started to buy back the excess milk and by 1980 spent 40 million USD in one year on buying back the excess milk from privately owned processing plants and another 40 million USD to store the milk. President Reagan would not have it though, and to limit government spending put a stop to it. This did not sit well with the milk industry and they created a new system: the industry made a deal with the government to allow a program called the dairy checkoff. Farmer's paid a fee into the checkoff, and the money is used for advertising campaigns making people buy more milk products. The USDA, the United States Department of Agriculture, got in on the deal and signs off and supports all the advertising campaigns by the dairy industry. The checkoff fees also pay for partnerships with fast food chains to develop dairy heavy menu items.

Essentially, we now have the USDA, which is a government agency, responsible for nutrition guidelines (food pyramid and MyPlate<sup>32</sup>) for its citizens, also in charge of a multi-billion industry that promotes fast foods and dairy heavy menus. While dairy, if it is from healthy grass-fed cows living in a pasture and not a confined animal feeding operation, can be part of a healthy diet, the industry certainly made it seem like we are all dying of brittle bones and bad teeth and nutrition deficiency if we do not consume a high amount of dairy on a daily basis. And all the trouble the industry goes through while actually 65% of the world population can no longer digest dairy after infancy.<sup>33</sup> We stop producing lactase, the enzyme to digest lactose. In children, ear infections, asthma, rhinitis and many gastrointestinal diseases have a direct link to dairy allergy. Gastrointestinal issues causes lots of inflammation and leads to malabsorption of important nutrients.<sup>34</sup> Nutrition deficiency then in turn is the first step in creating a disease. Children are either lactose intolerant or they have an actual allergy to casein, the protein in milk.<sup>35</sup>

Grain agriculture is also heavily subsidized. 80% of crops grown are never intended for human consumption. It is fed to livestock and used for biofuel. Most of it is genetically engineered. 75% of what humans consume today are grains: soy, corn, sugar beets and wheat. Beverages make up a large part of this number. The surplus in grain production, food speculation and the food patenting industry makes the crops so cheap that the farmer is not making any money anymore. Subsidizing programs through the government are essentially paying the farmer's salary.<sup>36</sup> Wheat grains have become a subsidized crop too and due to its generally liked taste and amounts available it went to the bottom of the pyramid. The changing of the wheat is not based on nutritional science, it is implemented by politicians.<sup>37</sup> It is only perfect for agricultural practices not for the humans who eat it.

Low-income families only have access to cheap foods. Food stamps do not pay for organic produce or organic baby formula. Baby formula is full of soy, corn and genetically

engineered ingredients including pesticide residues. We lose the health of millions of children right off the bat.

**The Revolving Doors and GMO approval.** I would argue that we only have GMOs because they could be patented. Patented seeds have an ownership. Through patenting, the farmer is forced to buy new seeds every season. The saving of seeds becomes illegal. The crops that are genetically modified happen to also be the crops that are subsidized by the government. 80% of them are used for animal feed, and the rest is found in processed food, or used for biofuel. In a mainstream supermarket in the United States, 90% of the packaged foods contain genetically engineered ingredients. The company holding most patents on agricultural crop seeds is Monsanto. Conveniently, it is the same company that also produces the widely and most used pesticide in the world: Roundup. Monsanto also made chemical weapons in wars and produced DDT, an agricultural chemical long taken off the market. Of course, biotech companies never came out saying they want to patent seeds and make money. They still claim their motivation is to serve society and a growing population with food. Instilling fear of not having enough when in fact, 30% of food produced these days is lost. Lost in the field, through production, transportation or even worse: thrown away in grocery stores, restaurants and at home.

When GMOs hit the market, the FDA claimed they were safe because the documents they received from Monsanto, Dow and DuPont, claimed that GMOs are no different than non-GE crops. A policy was created so genetically engineered foods could be planted, processed and used for human and animal food without declaration. 7 years after the policy was put in place, because of a lawsuit against the FDA<sup>38</sup>, documents were found raising concerns on the safety of GMOs. FDA scientists actually were concerned about the safety of GMOs and urged their superiors to require safety testing. The story on how GMOs became approved cannot be told without mentioning this one man: Michael Taylor. Michael Taylor

was an attorney for Monsanto and was hired by the FDA, just in time to create the policy that claimed GMOs are equal to their non-GE sibling crops. Later, Michael Taylor went back to Monsanto to be their vice president. Now, Michael Taylor is the food safety officer under the Obama administration.

As long as government agencies look at data provided by the industry, promoting a certain food or agricultural practice, citizens will not get the truth.

#### **IV. Definitions. Symptoms. Diagnosis.**

##### **IV.I. Explaining the different food allergies.**

Food allergies are real. This is a very important point to understand.

They are affecting children everywhere, no matter the socioeconomic status. They affect the kid. They affect the whole family. The community. The school. The economy. They affect social life. They take lives.

Non-IgE food allergies of any kind are as real to the child and the family affected as an IgE allergy. Constant inflammation in the body leads to serious diseases that keep us from living life.

May I introduce the different allergies relevant to this paper. Ig stands for Immunoglobulin, a compound in the blood, essentially an antibody that attaches to an antigen (the food protein).

##### **IV.I.I. IgE**

An IgE allergy is what is called a real allergy by Western Medicine standards. The antibody IgE mediates it and the reaction to a food protein is immediate - within 2 hours. Swelling of the lips and face, rashes and trouble breathing are serious reactions and can turn into a systemic anaphylactic reaction. Other symptoms involved: swelling of eyes, mouth, skin, throat, skin rashes, itchy throat, but also gut and airways are the areas mostly affected.

Children, and adults, with an IgE food allergy must carry an epinephrine pen with them at all times.

At first sign of a food allergy, do not hesitate using the epinephrine pen and call first responders immediately.

#### IV.I.II. IgG

IgG reactions are delayed onset food allergies, also true food allergies and much more common than an IgE allergy. An estimated 1 in 4 people are affected and they are not usually recognized by western medicine because diagnosis is more difficult and the reactions are delayed. Sometimes the symptom and the food are not put together because of the time that passes between exposure and reaction. The delayed onset can be from 2 plus hours to days. The immune system creates an overabundance of IgG to directly attach to a certain food. These IgG - food compounds, also called immuno-complexes, travel to the weakest link/organ in the body. Depending on the individual person, IgG food allergies can create 100 plus different symptoms. IgG food allergies are usually to foods that are eaten often and often involve multiple ones at once. An addiction to those offending foods is very possible as well.

#### IV.I.III. Intolerances

Food intolerance is a non-immunological response to a food. This means we lack a certain enzyme to digest a food or a certain compound of a food. The most common one is lactose intolerance where affected people lack the enzyme lactase to digest the lactose in cow's milk. Approximately 65 percent of the human population has a reduced ability to digest lactose after infancy.<sup>39</sup>

Other intolerances: fructose, additives, preservatives, other compounds added to foods and certain processing of foods.

IV.I.IV. Sensitivities

We can be sensitive to certain foods or chemicals added to food. The symptoms can be similar to a food allergy and quite severe; chronic hives, eczema and mosquito like bites, headaches, migraines, brain fog and digestive issues of any kind. Common food additives people are sensitive to are MSG (Monosodium glutamate), different sulphites (used to maintain freshness in factory prepared foods), Tartrazine (food colourings), BHA (a preservative) and inulin (added to a number of processed foods, derived from artichokes).

In this category we also have non-celiac gluten sensitivity: children who react to gluten but do not have celiac disease.

IV.II. Food allergy symptoms

Conditions and medical diseases where food allergies are likely involved:

- Asthma
- Autoimmune Diseases
- Allergic rhinitis
- Anxiety/panic disorders
- Autism spectrum disorders (ADHD, Autism, Asperger's)
- Black rings under the eyes
- Bed-wetting
- Back pain
- Brain fog
- Chronic fatigue
- Depression
- Digestive disorders (Diarrhea, Constipation, Cramping, Acid reflux)
- Diabetes
- Eczema
- Epilepsy
- Fibromyalgia
- Headaches (Migraines, Cluster Headaches)
- Inflammatory bowel diseases: Crohn's, ulcerative colitis, leaky gut
- Middle ear infections
- Nutrient deficiencies (esp. iron/folic acid)
- Osteoporosis
- Peripheral Neuropathy
- Rheumatoid Arthritis
- Rashes (anywhere on the body, around the mouth)

- Runny nose
- Short stature
- Sleep disorders
- Thyroid diseases
- Weight Gain

Disease begins where nutrients are missing. Food allergies are a symptom of our food culture; recurrent ear infections in children can be linked to dairy allergies, kids with an autism spectrum disorder have gluten sensitivity more often than not. Bed-wetting has something to do with an irritated bladder wall by inflammation through allergy complexes. Eczema is a symptom of an inflamed digestive system without a balanced microbiome and can possibly lead to asthma if the underlying issue is not addressed.

#### IV.III. Identification. How an allergy is diagnosed.

Finding a food trigger for a certain symptom can be quite daunting. Many food allergies, intolerances and sensitivities do not show up on blood tests and/or laboratory testing can be very expensive. From literature, trial and error and anecdotal observations we have learned a lot though. Children on the autism spectrum often have a non-celiac gluten sensitivity. Sometimes this will show up through an IgG anti-gliadin blood test.<sup>40</sup> Often it does not. Through different immune markers (CD14 and FABP2, LPS-binding protein) that are elevated in blood serum, gluten sensitivity and the involvement of an inflamed gut lining has been identified as well.<sup>41</sup> Other labs offer ALCAT testing (antigen leukocyte antibody test) where the immune cell challenge measures inflammation reactivity on live immune cells when confronted with food antigens. In the lab, food substances are presented directly to the patient's live peripheral immune cells and the reactivity is measured and categorized as 'non-reactive', 'mild intolerance' or 'moderate intolerance' and 'severe intolerance'.<sup>42</sup> The lab provides a detailed nutrition plan with color-coded food lists and a rotation food plan.

Unfortunately, this test, with a price tag of 600-1000USD is pretty expensive and its results can be overwhelming. An inflamed digestive system with leaky gut will leak too many incompletely digested food particles through, triggering immune reactions. Someone with inflammatory bowel disease will have more foods in the red zone than not. The ALCAT test is great for children or adults whose diets have been cleaned up a little bit already and some gut healing has taken place. IgG food allergies are also identified through a blood test. IgG allergies are usually not against one food but multiple food antigens from different food groups. Identifying IgG food allergies can be a great start if an elimination diet seems too overwhelming. IgE mediated food allergies are also determined through a blood test. IgE antibodies show up in the patient's blood serum and can be confirmed with a skin prick test.

The gold standard to determine IgG food allergies, sensitivities and/or intolerances is an elimination diet. Diagnostic elimination diets have to be confirmed by re-introducing the food to confirm symptoms are caused by a specific food. Treatment elimination diets eliminate the already known offending food. Elimination diets are great for people with chronic diseases possibly caused by food allergies and can be personalized, depending on the suspected offending food. In children, the top ten offending foods are eliminated from the diet for 4 weeks. The top ten allergenic foods are cow's milk, eggs, wheat, gluten, shellfish, soy, corn, sugar, peanuts and tree nuts. After avoiding the offending foods for a certain amount of time, one after the other is introduced back into the diet. It is important to wait for 4 days after each food was introduced back into the diet to watch out for symptoms that may occur. Children with behavioral issues may benefit from a gluten and casein free diet the most. To determine if a child has non-celiac gluten sensitivity, the gluten challenge is a great way to determine the possible link to a food allergy. The gluten challenge involves removing gluten from the diet completely for at least 30 days, then adding it back. If the symptoms/behavior issues improve during the absence of gluten in the diet, and return when gluten is reintroduced, a diagnosis of

non-celiac gluten sensitivity (NCGS) can be made.<sup>43</sup>

Celiac disease is diagnosed by testing for different antibodies, genetic markers and a biopsy of the small intestine. This can be done at your primary physician's office. If the blood tests are positive, the medical doctor can refer the family to a specialist for the biopsy.

Skin Prick Tests (SPTs) are done to assist identification of IgE food allergies. Method: puncturing the surface of the skin to introduce an allergen and evaluating the area for a wheal (small swelling) or flare (redness). The test is read at 15 or 20 minutes. A positive test correlates with IgE antibodies in the blood. A negative SPT does not mean there are no food allergies. It does not include IgG food allergies, sensitivities or intolerances. SPTs can also be negative if children are too young (< 3 months of age), are on anti-histamine medication or have had a positive SPT before and now developed tolerance to the substance tested. You will not have a positive SPT if digestive disorders are the reason for possible testing, with gluten sensitivity, with lactose intolerance, in celiac disease and in older children with eczema or dermatitis.<sup>44</sup>

#### **V. Alleviating symptoms. How you can help your child.**

The good news is, we can heal our children from most allergies. The bad news is, many IgE allergies cannot be healed or outgrown by the child. The IgE allergies that usually stay for life are allergies to peanuts, tree nuts, shellfish, eggs and casein (the protein in cow's milk). Healing an allergy does not mean we can go out and eat everything that is available without getting sick. Healing an allergy means we can alleviate symptoms, reduce inflammation and strengthen the immune system. Ear infections, eczema, achy joints and headaches can be history, we can live life, and children can learn better, read better, concentrate better and make friends. Families who choose this path have to follow strict guidelines. In society it will be harder but together as a community we can do it, and we will be rewarded with our

children's health.

### V.I. Nutrition Therapy

Nutrition Therapy is a dietary intervention that is used to prevent or treat health conditions that are caused by or made worse by unhealthy eating habits, poor food quality, environmental factors and modern agricultural practices.

After removing the identified offending foods, gut healing is the top priority of nutritional therapy. Inflammation in the digestive system and leaky gut is what is causing all the undigested food particles to go through the intestinal lining into the blood stream, triggering the allergies in the first place.

Foods and nutrients to heal the gut: The gut cells need healing, so the gaps caused by inflammation and exposure to pesticides can close. The gut also needs to get back in balance with a several probiotic strains to help with nutrient absorption, manufacturing of immune cells and neurotransmitters. We remember the precursors we lost due to the exposure to glyphosate (chapter 2). Where simple foods can no longer fill all the malnutrition gaps, supplements are added. Supplementation is a very individual science. A nutrition therapist should recommend specific nutritional and supplement plans. Leading in the science of healing from many of the symptoms food allergies can cause is the GAPS program by Dr. Natasha Campbell-McBride, MD.<sup>45</sup>

- Fermented foods (sauerkraut, fermented beets, pickles) \*
- Fermented drinks (kefir, kombucha)
- Bone broth (bones have all the good nutrition for healing, when cooked over 24 hours,

the minerals leak into the broth, store bought is available, but home made is best) \*

- Glutamine
- Butyric Acid
- Probiotics
- Cod liver oil for its vitamin A and vitamin D3 content

Food and nutrients to heal the immune system: The immune system of a child is ever developing and has a hard stand in the midst of all the sugar, processed treats and environmental toxins. Sugar keeps the cells from absorbing vitamin C. Vitamin C is a strong antioxidant that helps with detoxification of environmental free radicals. The immune system also needs selenium, zinc, B vitamins and essential fatty acids.

- High quality multivitamin, free from offending food allergens
- Fresh fruits and vegetables daily \*
- Smoothies or fresh vegetable/fruit juices are a great way to add plenty of vitamins and minerals \*
- Soups: use bone broth as the base
- Zinc, Vitamin E, Vitamin A and C, Curcuma, Quercetin, essential fatty acids (EFAs including Omega-3, borage oil, black currant seed oil, evening primrose oil
- Detoxification programs (Supplementation, colon cleanses, chelation therapy, supporting organs of elimination and detoxification)

Combating nutrient deficiencies: Children's bodies are growing and developing and need nutrient dense foods every day, with every meal. Every opportunity to feed a child something she can use to heal, grow and develop her cells is an opportunity we must take.

Fruits and vegetables have different colors because they have different nutrients that make them healthy. Vegetables can be consumed raw or cooked, depending on how we like them better; some should have a little olive oil added to increase the ability to absorb the vitamins. The quality of the foods we eat is the number one priority when we choose healthy for our children. In the United States, watch for the USDA organic label, the Non-GMO verified label or know your farmer. Maybe your local farmer doesn't spray agricultural chemicals but is not certified as an organic farmer because the label is expensive. It doesn't matter. If you know your food was grown in healthy soil, if the animal products chosen for your family are raised humanely and without agricultural chemicals and pharmaceuticals, you do not need a label. The same goes for Europe. Choose organic, choose local, talk to your farmer, and buy produce at a farmer's market.

- Eat a rainbow
  - Buy organic fruits and vegetables whenever possible
  - Consume organic and grass-fed animal products only
  - Know your farmer
  - Follow the Environmental Working Group for the yearly dirty dozen - clean fifteen list
- 46\_
- Sardines, sesame seeds, collard greens, spinach and other greens contain much more calcium than dairy milk does
  - Grow your own

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Nutrition Therapy is a choice a family has to make. It will take time to get extended family, friends and the school on board. Transparency and clear communication will help you get there. Honesty and direct communication towards the affected child is always best. Once a

child feels better he can make the connection between a symptom and the offending food himself. Children are curious, smart, and intuitive. Having meals outside of the house can be stressful for everyone. Talk about how you will handle the food offerings at a birthday party. Bring a treat your child can have so she doesn't feel left out.

- Involve the child in finding new foods
- Plan meals together
- Grocery shop together
- Cook together
- Plan ahead for special occasions
- Join a CSA (community supported agriculture)
- Skip the store, just open the door (weekly organic produce delivery services)

Avoid the pitfall. Eat gluten free but *do not eat gluten-free*. Allergies are big business for food companies. They make us feel like we are missing out because we can no longer have certain foods. So they made a replacement! How convenient, right? Packaged foods labeled gluten-free and dairy-free are still packaged products. Convenience is what got us into this mess in the first place. If we do buy something from a package, reading labels is necessary, even life saving. It doesn't matter what the big letters say front and center on the box, the only thing that matters is what it says after the word ingredients. Wheat has many names, so does sugar, soy and corn. Pretty much everything that goes into a box can be manufactured from those 4 crops. Parents have to be educated about the processing facilities, learn about cross-contamination and whether or not it is safe for the child to eat at a restaurant.

- Learn to read labels
- Call food manufacturing companies
- Find safe restaurants to eat at
- Educate yourself about allergy declaration
- Re-read ingredient lists, as companies change recipes without notice
- Shop the outskirts of the grocery store

*\*Find recipes, meal planning resources and inspiration in the Resources section.*

### **VI. Prevention. How to protect the next generation.**

As much as is going wrong in the high offices all over the world, the more people are on the ground fighting for consumer's right to know what we are eating. Communities are organizing to feed themselves, to be independent from biotech companies. As consumers we are a strong force to be reckoned with. What we buy and support today, is what will be available to us in the future. Farmers will listen and start producing what we eat.

- Keeping up the pressure on policy makers
- Talking to farmers about the type of foods we want
- Voicing our concerns about pesticides to anyone who will listen

Humans are very multifaceted and complicated creatures. So many factors go into the health or 'unhealth' of our children; we cannot possibly control or change it all at once. It seems very overwhelming at times. But there are many, many steps we can take to prevent further generations from suffering so many allergies and their related health issues.

Nutritional concepts to protect the next generation start before conception: Pre-pregnancy preparation is for the women and the man. Assuming the men's sperm is healthy enough to get to the target, the genetic makeup that is in the sperm needs to be protected by nutrients and not be exposed to chemicals. The environment impacts what genes are exposed and which stay protected and hidden. Pregnant women are not just responsible for their own health, but for the health of her baby and the possible grandchild. The baby takes the nutrients needed from the mom, unfortunately; also the toxins are passed on the baby in utero. If a woman has no balanced microbiome, the baby won't get any good bacteria either going through the birth canal at birth. Babies born by C-section DO NOT receive probiotics from the mother and can not accumulate a healthy microbiome in their guts and on their skin, which brings me to the next important point: breastfeed for as long as possible. Breastmilk contains probiotics as well and is the perfect food for a growing baby. The mom should be eating a diet high in essential fatty acids and nutrients-dense foods that are grown organically as toxins from pesticide heavy agricultural practices accumulate in the breastmilk. Moms Across America, a group of activist moms, tested the breastmilk for glyphosate and some levels came back higher than what is allowed in drinking water in Europe.<sup>47</sup> Unfortunately it is another way that the industry has lied to the consumer by claiming that glyphosate does not accumulate in the body but washes right out. In May of 2016, Members of the European Parliament took a urine glyphosate test and all participants excreted glyphosate by urine (on average 1.7 microgram/liter). The rather concerning part to this is, that the levels were 17 times higher than the European drinking water norm allows (0.1 microgram/liter).<sup>48-</sup>

Babies first foods should be organic and nutrient dense as well. Lots of discussion in the mainstream medical world if introducing foods earlier, rather than later, can prevent allergies.<sup>49</sup> Recommendations to avoid introducing highly allergenic foods until toddlerhood, have bared no fruit, and cannot prevent allergies. From a nutritional standpoint, a baby should eat

when she is ready: she can sit and is interested in food. A baby's digestive system also has gaps for easy passing of the antibodies the mother provides for the child through the breastmilk. These gaps are closed by the time the child turns 2 years old. Developmentally it is detrimental if the child is fed pesticides and foods that kill the good gut bacteria. I am imagining all the babies who are fed formula laced with glyphosate and genetically modified corn and soy. Some parents do not have a choice as these products are subsidized and the only ones available on a food stamp budget and social security programs. Glyphosate levels have also been found in many of American's favorite foods, including the most famous cereal Cheerios. The pesticide level there exceeds the safe level allowed in drinking water.<sup>50</sup>

Nutritionally, preventing food allergies is not much different from healing the symptoms of food allergies.

- Eat organically grown foods
- Cook at home
- Avoid known toxins in our food
- Avoid known toxins in our environment
- Avoid known toxins in personal care products
- Use supplements where nutritional gaps need to be filled
- Make an informed choice when it comes to the medical care of your child

## **VII. Conclusion**

So many things are going wrong when it comes to feeding our children. Parenthood has changed and includes a degree in scientific research, political science, nutrition and medicine. At the end of the day we are either part of the solution or part of the problem, it is our choice. We have to read labels and keep up with new science. The food system cannot be fixed: it has

to be re-built.

*Our children are certainly allergic to foods because of what has been done to our food and our environment. But we can do something about it.*

I invite everyone who reads this paper to go out into the world and do one thing to re-build our food system. Support your local young farmers with a membership to their CSA, buy meat from a farmer whose cows were able to eat grass, shop at your local farmer's market. Help your fellow mom with ideas on how to be healthier. It takes a village to raise a child. Lets bring common sense back and trust our instincts. Be brave.

Also use the resources provided in the resources section of this paper. Keep reading about food politics, also on a local level, and get involved where you feel comfortable.

## **Resources**

Meals, Recipes, Articles and Holistic Nutrition Inspiration  
Pinterest Boards by Holistic Family Nutrition  
<https://www.pinterest.com/holisticfamilyn/>

100 Days of Real Food  
<http://www.100daysofrealfood.com>

Non-GMO Shopping Guide  
<http://www.nongmoshoppingguide.com>

Managing Food Allergies at School  
<http://www.foodallergy.org/managing-food-allergies/at-school>

Door to Door Organics  
<http://doortodoororganics.com>

Right to Know Movement  
<https://usrtk.org>

Moms Across America  
<http://www.momsacrossamerica.com>

Institute for Responsible Technology  
<http://responsibletechnology.org>

Menu/Meal Planning Ideas  
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