Using FOOD AND NUTRITION to Improve AUTISM & ADHD

Parents and Clinicians

GET STARTED GUIDE

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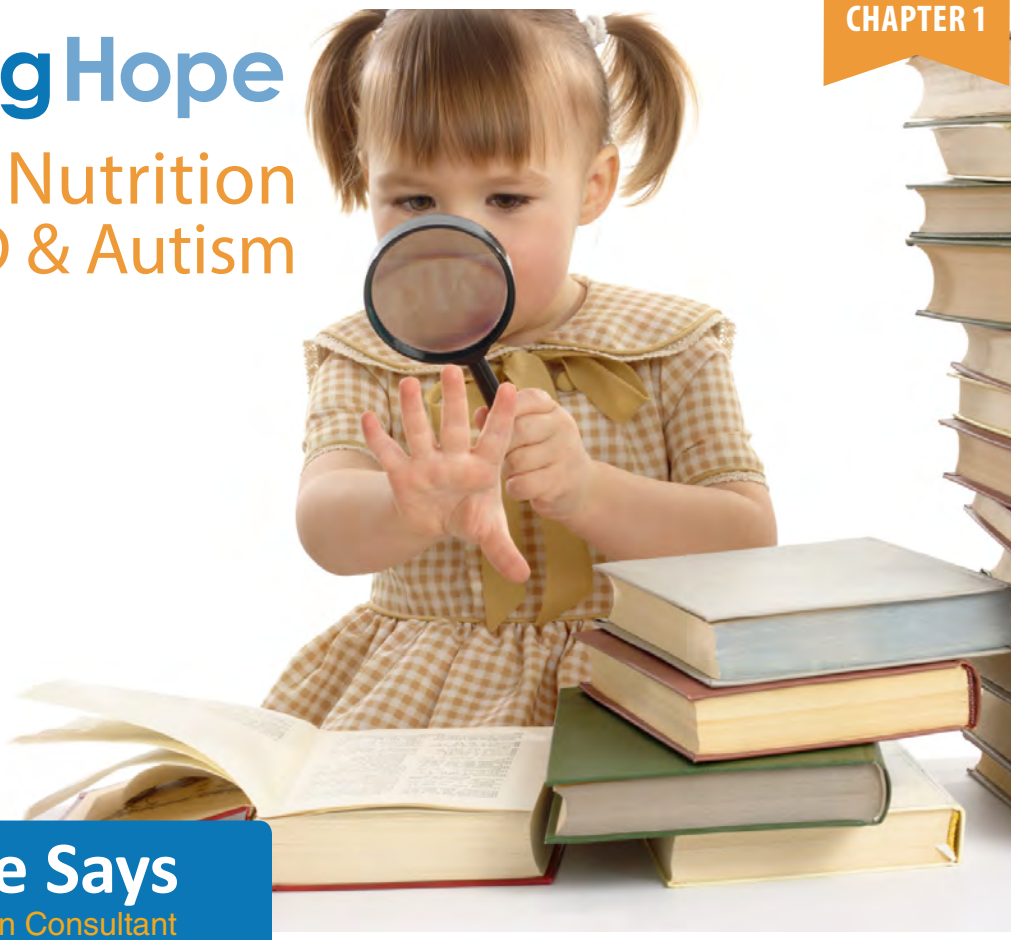
CHAPTER 1

Nourishing Hope

Using Food and Nutrition to Improve ADHD & Autism



What the Science Says

By Julie Matthews, Certified Nutrition Consultant

Food and nutrition influence the health, learning, and behavior of children. As a parent or clinician addressing a disorder such as autism or ADHD, it's important to understand the connections between what goes into the body and how it functions. You can affect the existence or severity of varied symptoms by giving strategic attention to children's diet. Nourishing hope is about using scientific research, practical knowledge, and individualized insight to help discern and apply the most supportive food and nutrition plan for each child.

With this approach, children are improving. Thousands of parents and clinicians around the world are documenting and blogging their personal experiences – that addressing a child's underlying health issues (fundamentally through diet/nutrition) has led to improvements in ADHD and autism related symptoms.

Recovering from these disorders is possible, and has been documented. Increasingly there are reports of children losing their diagnoses, returning to mainstream classrooms, and making previously unheard of strides.

When I began my nutrition career thirteen years ago, I was initially curious about the connections between food ingredients, artificial additives, and behaviors associated with ADD/ADHD. My initial research paper revealed that many common symptoms of the disorder could stem from what children eat - I advised altering diet.

But then I discovered something bigger – that ADHD, autism, and many other childhood disorders have similar underlying factors, and that they are *all* influenced by diet. I became intently focused on understanding biochemistry and the specifics of using special diets to help autism and beyond. My final research report on Autism: Environmental Contributors, Biochemical Observations, and Nutrient Intervention, later became my book *Nourishing Hope for Autism.*

Informing and inspiring others has become my life's work.

In this first of four articles, I will explain WHY and HOW special diets help. Knowing that science is on your side will help you be most effective at nourishing hope for your child.

ADHD, Autism and Neurological Conditions are WHOLE BODY Disorders

Let's explore autism as an overarching example. Children with autism are the "canaries in the coalmine," alerting us that something is wrong and that action is needed. They are the most sensitive and easily injured by the toxins, stressors, and deficiencies in our environment. What we learn by studying autism helps us understand and address a myriad of childhood disorders today.

Autism has long been considered a "mysterious" disorder that begins/ends in the brain, and that affects observable social behavior. The mainstream healthcare system continues to view the disorder this way, believing that it cannot be changed or influenced.

Yet since 1967, the Autism Research Institute and other organizations have approached autism as a "whole body disorder," believing that the brain is affected by the body's biochemistry.

Physicians and parents have been sharing data for years, observing and documenting an array of common physiological symptoms of autism. Harvard professor Martha Herbert M.D., Ph.D., was among the first to describe the brain and behavior as "downstream" from the body's functioning; explaining that what happens in the brain of the child with autism is literally impacted by what occurs in their body's organs and biochemistry, beginning with the digestive system.

When accurately seen as a whole body disorder, parents and physicians are more likely to identify the physical symptoms of autism that routinely get overlooked. With this broader comprehension it becomes apparent that there are many things you can do to address these challenges and help children improve.

Common Physical Symptoms with Similar Underlying Causes

Children with autism routinely exhibit physical symptoms; such as diarrhea, constipation, bloating and GI pain, frequent infections, food allergies, sleeping challenges, and inflammation/pain. For many children, nutrient deficiencies, imbalanced biochemistry, digestive problems, and inflammation underscore these symptoms.

For example, all of following conditions have underlying inflammation: Autism[1,2,3], ADHD[4], depression[5,6], anxiety[7,8], schizophrenia[9,10], asthma, allergies, autoimmune conditions, inflammatory bowel disorders, and eczema.

These underlying conditions cause symptoms in children with varied diagnoses—many of these are comorbid (existing together): eczema, hyperactivity, inattentiveness, mood imbalances, allergic reactions, diarrhea/constipation. Regardless of the diagnosis, these symptoms are signs that the body suffers underlying biochemical imbalances.

A child's diarrhea, rash, and eczema are not "unrelated, concidental symptoms" to their ADHD diagnosis—they are connected. In fact, *most* neurological and childhood disorders (autism, ADHD, allergies, asthma, anxiety, depression) have similar internal factors that cause external symptoms - factors that parents and clinicians can influence.

Modern Day Crisis - Reversible

American children are sicker today than ever before: 1 in 2 suffers from a chronic health condition.

The "Standard American Diet" blindly consumed today (not just in America) involves fast food, processed, packaged, and junk food with artificial additives and pounds of added sugar. Eating this way is a huge cause of nutrient deficiencies, and the sugar and additives tax and deplete the system more. Too many children today do not get the minimum requirement of nutrients that are needed for brain development; including zinc, iron, calcium, B6, omega 3s and more.

Furthermore, toxins/chemicals, overuse of antibiotics, and environmental stressors deplete and interfere with our bodily system, adding to inflammation, deficiencies, and digestive disturbances. Over recent generations, these deficiencies and stressors affect our genetics, turn on and off genes that lead to increased childhood disorders and disease.

Because the body and brain are connected, as you affect health, you also affect learning and behavior. The science says that you can improve these childhood disorders.

Gut and Brain Connection

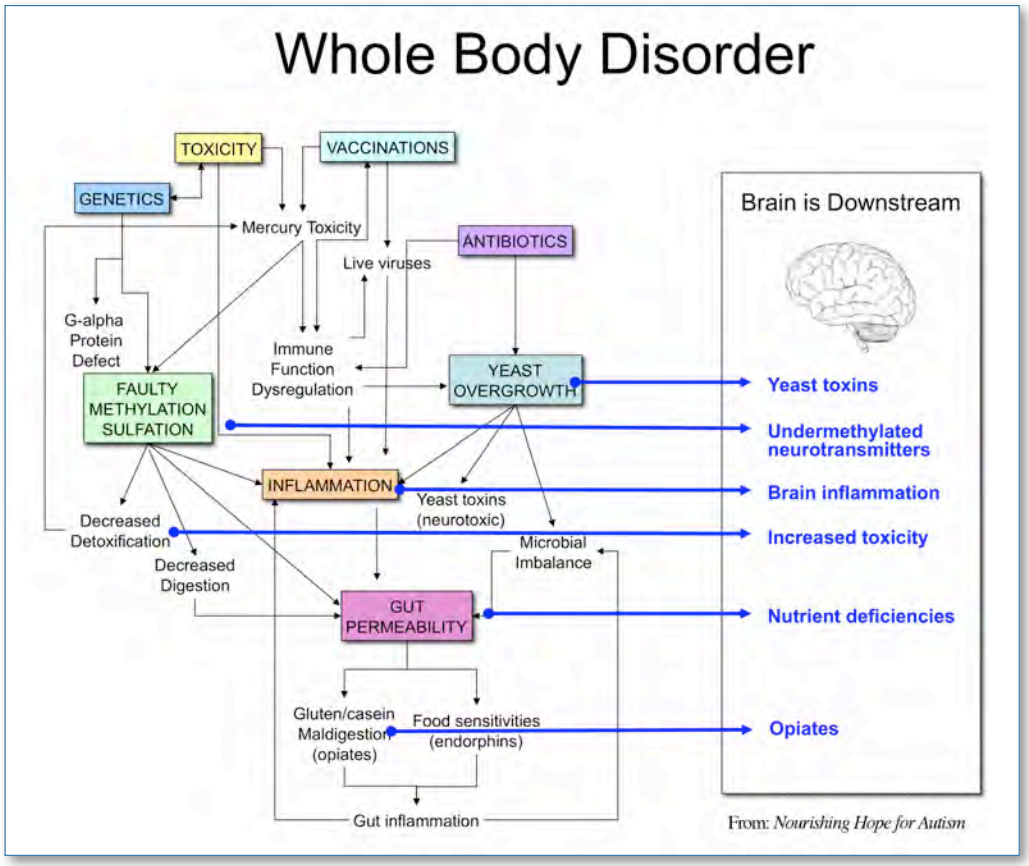
What children eat affects how their body and brain operate for several reasons: the chemicals and substances in foods can affect the brain, foods can feed or starve out harmful microbes in the gut that create toxins that affect the brain, the foods we digest become nutrients for the brain to function."

The work of Dr. MacFabe at the University of Western Ontario has illustrated this gut-brain connection with autism[11]—that the condition of the gut affects the functioning of the brain. Hippocrates, the father of modern medicine said, "All disease begins in the gut." We must remember that the foods we eat are in constant contact with the gut, and of significant influence on the body and behavior.

For many children, the physiological and behavioral symptoms of autism and ADHD may stem from or are exacerbated by impaired digestion and GI health. One research study concluded that "unrecognized gastrointestinal disorders...may contribute to the behavioral problems of the nonverbal autistic patients."[12]

CONDITIONS LINKED TO INFLAMMATION

- Autism
- ADHD
- Depression
- Anxiety
- Schizophrenia
- Asthma
- Allergies
- Autoimmune conditions
- Inflammatory Bowel Disorders
- Eczema



Nutrients are essential to all biochemical and brain function. Adequate nutritional status requires the consumption of nutrient dense food and proper digestion to breakdown and absorb those foods. Poor digestion can lead to a condition known as leaky gut; marked by malabsorption of nutrients, inflammatory responses to foods that are not broken down, and a burden to the detoxification system.

Poor digestion often stems from environmental factors (as well as genetic susceptibility), lack of beneficial bacteria, inflammation, and immune system response to certain foods. And studies have shown leaky gut,[13] low levels of beneficial flora,[14] inflammation and immune response to food[15] [16] in children with autism. Additionally, the response to certain foods such as gluten and casein can create an opiate or inflammatory reaction that can affect the brain.

Gluten & Casein - Possible Opiates

Certain foods, such as wheat and dairy, contain proteins (gluten and casein) that can form opiate compounds if they are not properly digested. They fit in the opiate receptor of the brain and mimic other opiates like morphine[17]. This opiate effect can directly influence the brain and result in symptoms similar to morphine—foggy thinking, inattentiveness, constipation, and more.

Gluten and casein, when not tolerated can cause an inflammatory response that can create digestive disturbances, pain throughout the body, and nutrient absorption issues. Inflammation is so important to understand and control because cytokines (inflammatory chemicals) can negatively affect behavior and mood[18].

Research shows gluten intolerance is a factor in depression[19], anxiety[20], ADHD[21], and schizophrenia[22]. And there are a number of studies on the opiates in autism[23, 24, 25] a decrease in GI symptoms on a GFCF diet[26], and a reduction in autistic symptoms with a GFCF diet[27, 28, 29].

As a parent addresses matters within their control, i.e. their child's diet, nutrition, and lifestyle, they are literally supplying the body the nutrients and condition it needs to heal. Improving these underlying factors influences the trajectory of dis-order and leads to better overall health and well being, and subsequently improved learning and behavior.

How the Body Affects the Brain

Not only are the gut and the brain connected, but the entire body and the brain are connected. There are many body systems and biochemical processes that need to work properly for the body to be healthy and the brain to function well — they require nutrients, a normal inflammatory response, good cellular and metabolic function, proper digestion, and adequate detoxification. Most neurological and childhood conditions are whole body disorders; therefore strategies that help support and heal the body of children with autism can benefit other disorders too, and help everyone to heal and thrive.

Referring to the chart, "Whole Body Disorder" from my book *Nourishing Hope for Autism*, let's look at the research I've gathered on autism. On the left you can see the complex set of factors that influence autism: toxins, environmental factors, digestive health, and inflammation. The right side indicates the affects they can have on the brain. While this chart denotes autism, as I continue to explain, this body/brain connection holds true for ADHD, learning delays, and other neurological conditions facing children and adults.

Here's how imbalanced biochemistry affects the brain and the symptoms of autism, as well as ADHD, anxiety, depression and many other conditions:

- **Opiates** can be created from inadequate breakdown of gluten, casein, and soy leading to symptoms of opiate excess – foggy thinking, insensitivity to pain, opiate addiction and withdrawal, and irritability.
- **Methylation malfunction**: when this biochemical cascade is not working properly (often seen in autism[30]), neurotransmitters can-

According to Hippocrates, "All disease begins in the gut," and this certainly proves true with ADHD and autism. As you can see, digestion and gut health affect the brain, and as well as many other body systems and symptoms.

not be methylated (and therefore are not "activated") as they need to be, increasing the likelihood of anxiety, depression, ADHD, and sleeping issues.[31]

- **Inflammation** in the gut and brain can be caused by toxins, food sensitivities, or bad bacteria or yeast in the gut. This can cause pain that affects behavior—self-injurious behavior, leaning over furniture, and head banging can all be signs of pain[32]. Inflammation is also a sign of oxidative stress and deficiency in the cell (and brain).

- When **detoxification** is poor, (studies show low sulfation[33] and low glutathione[34] in autism) toxins from food and the environment can build up and act like drugs/neurotransmitters on the brain, (causing irritability, aggression, brain/cellular damage) as with salicylates, artificial ingredients, MSG, mercury and aluminum.

- **Poor Digestion and Nutrient Deficiencies**. When digestion is poor and the gut is too permeable ("leaky gut"), as in autism[35], the nutrients that are supposed to get through cannot absorb properly. This leads to nutrient deficiencies that can affect all cellular function, including the brain. Iron and zinc are two of these nutrients that are low in autism[36], [37] and ADHD [38, 39].

- **Yeast**. When there is yeast overgrowth in the body, toxins enter the bloodstream and make their way to the brain where they can cause symptoms ranging from spaciness, foggy thinking, and drunken behavior[40].

According to Hippocrates, "All disease begins in the gut," and this certainly proves true with autism and ADHD. As you can see, digestion and gut health affect the brain and many other body systems and symptoms.

Food interacts with the gut constantly and can have a profound impact on symptoms. *Removing* the offending foods that contribute to inflammation, trigger immune response (food sensitivities), and increase toxicity is crucial, and *adding* foods that support a healthy ecosystem and provide needed nutrients, is essential.

Understanding that gut and brain are connected helps explain WHY autism, ADHD, and overall health are improved through a diet that supports digestion/GI health and biochemistry. GI health and biochemistry are partners. Biochemistry involves cellular processes that require energy, nutrients, and enzymes to function, and proper digestion is required to obtain and absorb the nutrients needed for these processes. Biochemistry can go awry if there are insufficient nutrients, an inability to digest and absorb nutrients, a limitation on a particular nutrient, or inability to convert a nutrient to the active and usable form. Attention to diet is crucial.

5 AREAS WHERE FOOD MATTERS

A healthy diet and good digestion is essential for good health.

By supporting biochemistry, digestion, and nutrient status through strategic attention to diet and nutrition ("nourishing hope"), you can improve the symptoms of autism, ADHD, and beyond.

Here are five major areas where nourishing hope can help improve the health of the gut, the whole body's biochemistry, and positively affect autism, ADHD, and your child's overall physical and mental health.

1) Inflammation and Leaky Gut

Improving digestion, reducing inflammation, and healing the gut are important steps in overall health and healing. Behavior, language, and skin rashes are a few areas that commonly improve.

- ***Remove foods that inflame the gut***. Gluten, casein, soy, corn, and eggs are common offenders. The exact foods to remove will depend on the individual; however, the gluten and casein-free diet is the most popular and successful place to begin (for autism). Sugar and refined oils also contribute to inflammation.

- ***Add foods that heal the gut***. Foods such as ginger and turmeric reduce inflammation. Fish oil, flax seeds, walnuts contain omega 3s that have anti-inflammatory properties. Fermented foods help heal the gut.

- ***Add foods that supply beneficial bacteria***. Fermented foods such as non-dairy yogurt, young coconut kefir, and raw sauerkraut contain good bacteria that create a healing environment that helps reduce inflammation.

- ***Add foods that increase beneficial bacteria***. Prebiotics are foods (often high in soluble fiber) that support and help increase good bacteria levels in the gut. They include: asparagus, bananas, beans/legumes, chicory root, garlic, honey, kefir/yogurt, leeks, onions, and peas. Butyric acid is a short chain fatty acid (often produced by good bacteria from the eating soluble fiber), found in butterfat and ghee that helps nourish the intestinal lining.

2) Nutrient Deficiencies

Nutrient deficiencies are common among children with autism[41] and ADHD. Poor quality and limited diets add to this problem. Specific nutrients are required for complex biochemical processes, and nutrients can only be digested and absorbed through food and supplementation when the GI tract is functioning well. In addition to boosting digestion, it is important to get a wide variety of nutrients.

- ***Increase the quality and digestibility of food.*** Increase food quality and the amount of nutrient-dense foods such as grass-fed meats and organic vegetables in the diet. For ideas on getting greater variety, see the list of nutrient-dense foods. Soaking and fermenting grains increases their digestibility.

- ***Add in more vegetables.*** Puree vegetables and add them to meatballs, smoothies, pancakes, muffins, and sauces. Try juicing to get concentrated nutrients that are easy to digest. Ice pops from juices or smoothies help get these nutrients into kids.

- ***Add supplementation.*** It is not always possible to get the requisite therapeutic levels of nutrients through foods alone. Use vitamins, minerals, fatty acids, or amino acids to address your BioIndividual Nutrition™ needs.

3) Yeast Overgrowth

Yeast is a harmful organism that can affect energy level, clarity of thought, and intestinal health. Yeast overgrowth is often triggered by antibiotic use and can create gut inflammation, resulting in decreased gut function. The following dietary practices help rid the body of yeast overgrowth.

- ***Remove sugars.*** Sugars feed yeast, contributing to yeast overgrowth. Reduce the amount of cookies, muffins, and other sugar-rich treats. Even sugar in fruit, especially dried fruit and fruit juice can be a problem for children.

- ***Remove yeast-containing foods.*** Bread, grapes, plums, aged meats and cheeses, and vinegars can feed yeast and should be removed.

- ***Remove starches.*** Some people need to eliminate starches that can feed yeast such as potatoes, corn, and gluten-free grains.

- ***Add probiotic-rich foods.*** Fermented foods contain live beneficial bacteria that crowd out yeast and support a healthy internal environment. Many are commercially available or you can save money by learning to make your own! See Cooking To Heal for recipes and videos!

NUTRIENT-DENSE FOODS

- **Vitamin A:** Cod liver oil, butter/ghee, liver, and egg yolk.
- **Vitamin C:** Sweet potato, winter squash, broccoli, leafy green, liver
- **Vitamin B6:** Sunflower seeds, pistachios, walnuts, lentils, grains and beans, rice bran, blackstrap molasses

- **Vitamin B12:** Liver, eggs, fish, lamb, beef
- **Folic acid**: beans, rice germ, liver, asparagus, broccoli, bananas

- **Omega 3:** Fish/cod liver oil, egg yolk, butter/ghee, flax seeds, hemp seeds, walnuts
- **Iron:** blackstrap molasses, liver, pumpkin seeds, duck egg
- **Zinc:** Pumpkin seeds, nuts, legumes, ginger, oats

- **Magnesium:** Sweet potato, winter squash, broccoli, leafy greens, seaweed, nettles, whole grains, nuts, legumes
- **Calcium:** Broccoli, leafy greens, winter squash, seaweed, nettles, nuts

4) Toxicity and Poor Detoxification

When detoxification is not working optimally or is overburdened by pre-existing toxins, avoiding further toxins in food is a must. Toxic chemicals can cross the blood brain barrier and affect the brain's functioning increasing hyperactivity, aggression, irritability, and self-injurious behavior.

- ***Avoid food additives.*** Artificial ingredients are very difficult for the body to process, avoiding artificial colors, flavors, preservatives, and MSG is crucial.

- ***Avoid toxins in food supply and meal preparation.*** Prevent the introduction of further toxins into the body by avoiding aluminum and plastic in cooking, by avoiding aluminum pans, aluminum foil, storing and microwaving in

plastic, and canned foods.

- ***Eat organic.*** Only high quality foods that are free of pesticides and hormones: organic produce, grass-fed meat, pastured eggs and chickens (non-organic chicken can contain arsenic). Avoid consuming pesticides, GMOs (genetically modified organisms), and hormones, and getting higher nutrient content - by eating organic.

- ***Add foods that support the liver.*** Antioxidants support liver detoxification: beta carotene, vitamins A, C and E, B vitamins including folic acid, selenium, and glutathione. (see list of nutrient dense foods). Sulfur-rich foods are especially beneficial in liver detoxification processes such as broccoli, cabbage, cauliflower, collard greens, kale, and Brussels sprouts. The spices cinnamon and turmeric support the liver.

5) Poor Methylation and Sulfation

Methylation, transsulfuration, and sulfation are one set of biochemical pathways that do not function optimally for many children. These pathways can be supported by avoiding certain substances that impede them, and providing the nutrients needed for proper functioning.

- ***Remove phenolic foods.*** Artificial phenols occur in petroleum-derived additives such as all artificial colors, flavors, and preservatives. Even naturally occurring phenols, called salicylates, present in (organic and conventional) foods such as grapes, apples, berries, almonds, honey, and more can create a variety of behavioral, emotional, and physical symptoms. When the biochemical processes of methylation, transsulfuration, or sulfation are not functioning well, limiting phenols and salicylates is important.

- ***Improve methylation and sulfation through supplementation.*** Supplementing with nutrients that can support these biochemical pathways is important. Methyl-donors and methylation/transsulfuration support such as: vitamin B12, folate, B6, DMG/TMG, magnesium, and zinc are important supplements to consider. Determining which supplements are needed and adding them, can be very helpful to the biochemistry and reducing autism and neurological-symptoms.

Possibility & Potential

I hope you are realizing a few things: that children suffering from disorders like autism and ADHD have greater potential than previously thought.

And that becoming strategic about food and nutrition choices benefits every child to varied extent. This science based "tool" is accessible to all parents. As you take charge of your child's diet, you directly influence how their body and mind operate - your actions can have immediate (sometimes profound) impact.

Simply begin: remove artificial ingredients, reduce sugar, avoid gluten and casein, lessen starches, add fermented foods or probiotics, or introduce more vegetables.

Start wherever it's easiest. Even just stopping the use of artificial colored candy as behavioral reinforcers can be the first step of nourishing hope. Enlisting the help of a nutrition consultant or experienced practitioner is advised. Someone that specializes in nutrition for childhood disorders can help you gain confidence to begin and provide appropriate food suggestions and meal ideas. A professional can help determine which dietary principles and practices suit your situation, how best to begin and evolve your approach, and to ensure your child is getting adequate nutrition in their special diet.

Whether you reach out to a nutrition consultant or begin on your own, getting good nutrition, avoiding problematic ingredients, and supporting good digestion are practices that will benefit everyone in the family.

In the next article, *Diets and Nutrition That Help*, you'll learn proven strategies that anyone can begin and follow. Armed with WHY, you'll next learn HOW to use this information to help your child.

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NourishingHope

CHAPTER 2

Using Food and Nutrition to Improve ADHD & Autism

Diets and Nutrition That Help

By Julie Matthews, Certified Nutrition Consultant

In article 1, ***What The Science Says***, you learned that many childhood disorders (including autism, ADHD, asthma, allergies, and more) have similar underlying physical and biochemical conditions. And you gained an understanding of WHY dietary intervention helps. I gave you an overview of the science known today about factors affecting autism and other childhood conditions. And I explained the factors that influence reactions to foods and nutrient deficiency. We know that many children with autism have:

- Increased Inflammation – gut, brain, and systemic inflammation
- Opiates in their urine from gluten and casein
- Poor methylation (needed for neurotransmitter activation)
- Poor detoxification – more risk of harm from environmental chemicals and reactions to food additives
- Poor digestion – leading to nutrient deficiencies, negatively affecting every system

When conditions like autism are perceived as "whole body disorders," it becomes apparent that improving the health of body, brain, and systemic functioning is likely to affect improvements in mental health, learning, and behavior.

In this article, I will explain the use of various healing diets, and what an overall nourishing diet looks like. I will include how each unique person needs an individualized nutrition approach to their food, diet, and nutrition choices.

Two Practices

"Dietary Intervention" is commonly misperceived as involving only the removal/elimination of foods from one's overall diet (food & nutrition regime). While avoiding problematic foods is vital, adding nourishing foods is equally important.

Following an intentional strategy about food and nutrition intake (nourishing hope) includes two practices:

Practice One – AVOID the bad stuff—foods that are inflammatory, damaging to the gut, or feeding dysbiosis.

Practice Two – ADD in foods for good nutrition—supplying needed nutrients and probiotics (good bacteria).

For example, while the GFCF diet technically removes *only* gluten and casein, there's more to it. Practice Two is about making the diet healthy and nourishing. Don't accidentally load up on gluten and dairy-free candy, cookies, soda pop, and more.

Supplying the body what it needs to engage natural healing processes by adding healthy foods is critical to the success of dietary intervention and crucial to the health of your child.

Some people and institutions misguidedly aim to deter you from embarking on a specialized food and nutrition plan for your child, because they think you may forget about Practice Two (Add) and inadvertently neglect to ensure your child receives the nutrients being "lost" by avoiding milk and wheat. Don't let this happen to you. Avoid the foods causing a problem, and add plenty of good nutrition in.

PRACTICE ONE — Avoid Offending Foods and Choosing a Special Diet

By avoiding or removing offending substances first, you begin by get rid of foods that burden the system, and

Nourishing Hope is a scientifically supported approach to improving autism & ADHD

therefore have an immediate positive impact. These substances can be food additives, food allergens/proteins, or natural food compounds.

Artificial Additives

The easiest and most important initial action, no matter which diet you follow, is to stop eating (or feeding your child) artificial ingredients and junk food. Artificial ingredients are highly toxic and very difficult for the liver to breakdown—they are associated with hyperactivity[1], asthma[2,3], aggression, irritability, anxiety, depression[4], headaches, and sleep disturbances. Once you realize the deleterious nature of certain foods, you'll naturally choose not to include them, or "eliminate" them, from your child's diet.

Special Diets

Most special diets primarily focus on certain problematic foods that need to be avoided - these may be artificial additives, food allergens such as dairy, or natural food chemicals like salicylates. Each special "Diet" has certain "rules." Usually, the rules include foods to remove, but may not focus on nutrious foods to add, so you'll want to do so. These rules are based on avoiding particular foods that cannot be processed by certain people – they may lead to inflammation, aren't tolerated based on biochemistry, or feed pathogenic microorganisms in the gut.

For example, the popular Gluten-free and Casein-free (GFCF) diet avoids wheat and dairy foods - because for some people those proteins create inflammation or opiate-like compounds. Other diets remove soy, corn, and other inflammatory foods. The Paleo diet eliminates grains and other foods, while The Specific Carbohydrate (SCD) and Gut and Psychology Syndrome (GAPS) diet, remove grains and say "no" to complex sugars and starches.

After years of dietary intervention by thousands of parents and practitioners, a number of diets have been identified as helpful for autism. This presents great opportunity for nourishing hope for these children, but can create some confusion about where to begin.

Typically, GFCF is a good place to start. It's one of the most helpful diets, and least restrictive. I've included a chart of some of the healing diets to consider—for more information on the specifics of the diets, common pitfalls, and beneficial uses, see my book, *Nourishing Hope for Autism.*

Food Allergies and Sensitivities

Food allergies and sensitivities (and their accompanying symptoms) are common in children with autism, ADHD, asthma[5], and beyond. According to Dr. Kenneth Bock in Healing the New Childhood Epidemics, "Food allergies have increased by approximately 700 percent in just the last ten years." A food allergy (IgE reaction) is an immediate immune response that includes symptoms such as a rash, hives, sneezing, or anaphylaxis.

A food sensitivity (IgG reaction) is a delayed immune response that includes chronic symptoms in the areas of inflammation/pain, digestion, and energy/mood such as: headaches, GI inflammation, diarrhea, constipation, hyperactivity, or anxiety. Food sensitivities can also trigger asthma attacks, migraine headaches, eczema, and more.

Because food allergies and sensitivities affect so many bodily systems, reducing them can make a significant difference in how a child feels and behaves. Doris Rapp, M.D. has been studying and treating children with allergies for many years. In her book, *Is This Your Child?*, Rapp describes possible symptoms of allergy (and sensitivity) reactions in toddlers: red ears and cheeks, dark eye circles and bags, glassy and glazed eyes, bloating, belching, diarrhea and/or constipation, headaches, runny nose, whining, screaming, hyperactivity, fatigue, aggression, depression, and refusal to be touched.

Parents routinely report that when they remove certain problematic foods symptoms improve; subsequently, children feel better and have greater capacity to pay attention and learn. Clear of these immune and digestive system reactions, they often make big gains in language and other areas of learning, behavior, and overall health. This can mean profound improvement for children with autism, ADHD, and other childhood disorders.

Opiates from Gluten and Casein

The two food sensitivities with the biggest negative effects for many

FOOD ADDITIVES AND INGREDIENTS TO AVOID

Artificial colors: Red #40, Yellow #5
Artificial flavors: Vanillin
Preservatives: BHA, BHT
Monosodium Glutamate: MSG, Hydrolyzed Vegetable Protein, Autolyzed Yeast, Yeast Extract
Artificial Sweeteners
Trans Fats

Opiates are addicting—and children often have strong cravings and preference to wheat and dairy foods such as pasta, bread, cheese, and milk because of it!

children with autism and ADHD are gluten (the protein in wheat) and casein (the protein in dairy). They are challenging for many people to digest and assimilate. In addition to being able to create the symptoms of allergy that Dr. Rapp describes, gluten and casein containing foods, (when not properly broken down by digestion), become a source of inflammation, and can sometimes form opiate-type compounds that mimic morphine—this can dramatically affect the brain, body, and resulting behavior, which is what is seen in autism[6, 7, 8].

Opiates are addicting—and children often have strong cravings and preference to wheat and dairy foods such as pasta, bread, cheese, and milk because of it!

Gluten-Free Casein-Free Diet

Parents typically begin dietary intervention with the GFCF diet. I've found it one of the most effective ways to begin. It is less restrictive than grain-free diets, while still being a stepping stone toward them (if needed).

These proteins can be very inflammatory, leading to digestive problems such as diarrhea, constipation, gas, bloating - as well causing opiate-like reactions and other symptoms such as foggy thinking and inattentiveness.

Without the foods that burden and inflame the body, systems can improve. Improved digestion is the number one thing parents report to me after beginning GFCF. Next, is that their children's speech improved after starting this dietary approach.

Other benefits parents report with GFCF include: improved attention and eye contact, less hyperactivity, better sleep, and less picky eating.

A common misconception is that "dietary intervention" only helps kids with digestive issues.

NOT TRUE— because gluten affects people differently, it can be a problem without you noticing or having digestive symptoms.

The GFCF diet avoids all foods containing gluten, the protein found in wheat, rye, barley, spelt, kamut, and commercial oats, and casein, the protein found in dairy. There are many new commercially available products and recipes, making it easier than ever to go GFCF.

Some of the foods to avoid (sources containing offending proteins) are obvious. You'll need to avoid any breads, crackers, pasta, or bakery items made with wheat and other gluten grains, and any dairy foods such as milk, cheese, butter, yogurt, and cream from any animals. But some sources can be sneaky and/or may contain undisclosed (gluten or casein-containing) ingredients, i.e:

- Soy sauce (except gluten-free)
- Potato chips and fries (often dusted with gluten during processing and not listed on label)
- Malt (derived from barley)

Be careful not to introduce a bunch of GFCF junk foods such as cookies, candy, and chips. Just because they do not include gluten or casein does not mean they are healthy. These foods can play a transitional role, though only when you're starting out. Avoid over-reliance on them.

Get my free GFCF Success Guide to help you plan and implement the GFCF diet for your child including:

- Gluten and casein-foods to avoid
- GFCF alternatives
- Meal Ideas
- Further GFCF Tips, such as avoiding cross-contamination and the use of supplementation.

Healing Diets

There are many diet and nutrition approaches to consider based on the BioIndividual Nutrition™ needs of each child.

To determine the best dietary approach for a particular individual, you must consider: digestive capacity, bio-individuality, family history,

inflammation, symptoms present, and more. The diet that's best for one person, may not be right for another with different circumstances.

Any of these diets can be healing: GFCF (Gluten-free Casein-free), SCD (Specific Carbohydrate Diet), GAPS Diet (Gut and Psychology Syndrome), Paleo, Low oxalate, Body Ecology, Failsafe, Feingold, Low FODMAPS, or another diet.

Determining which diet (or combination of dietary principles) you or your child needs (while ensuring good overall nutrition) is the process and objective of nourishing hope.

Published studies continue to support the use of specials diets and highlight the underlying biochemistry that plays a role. I've included some of that research in the Healing Diets Chart.

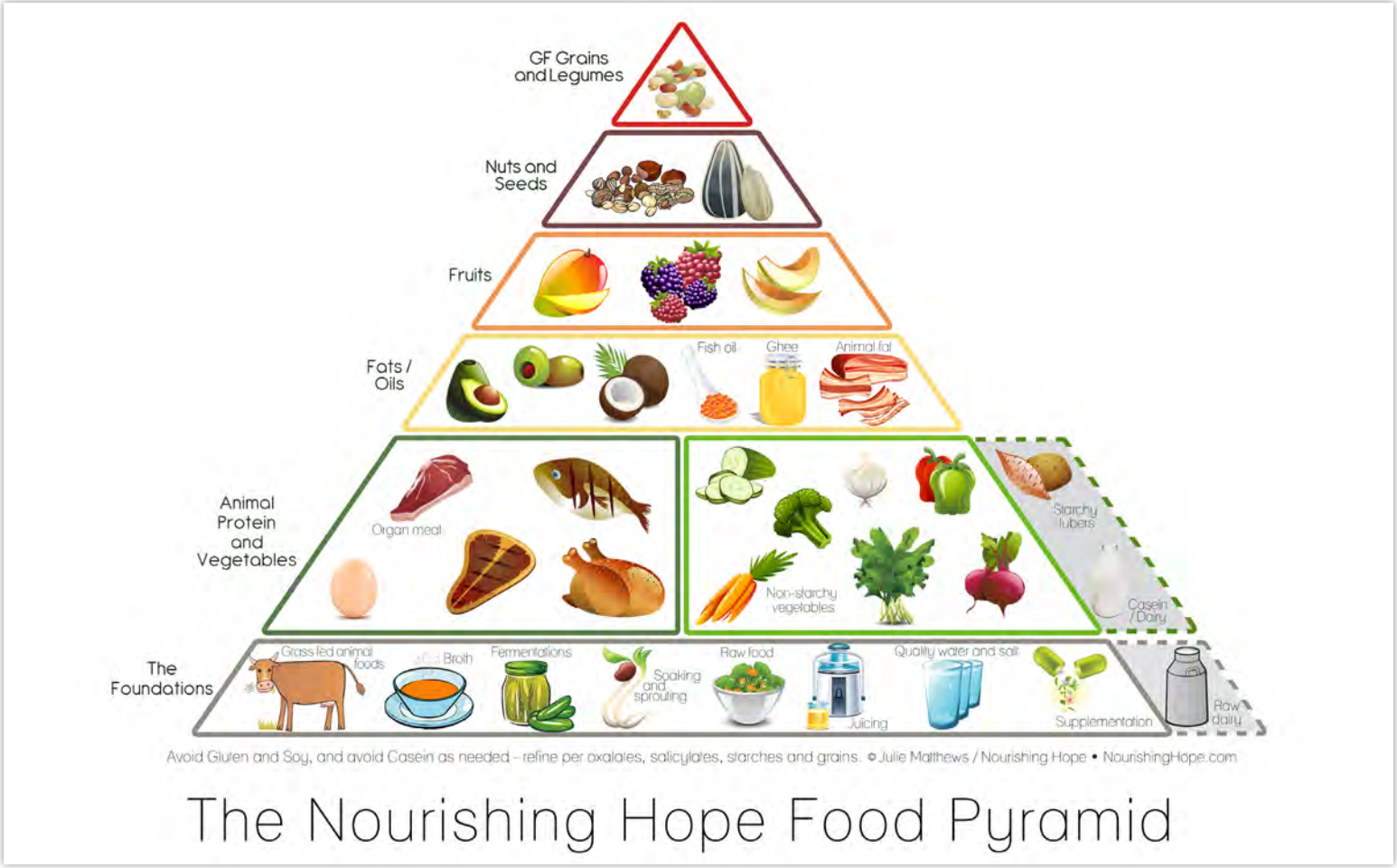
Grain-free diets such as: SCD, GAPS Diet, and Paleo have been found to be particularly helpful with inflammatory gastrointestinal conditions, blood sugar stability, and other needs. Low salicylate and low oxalate diets are very important for certain individuals depending on their biochemical makeup. It's important to understand the range of dietary strategies and the rationale behind them.

I encourage you to read my book, *Nourishing Hope for Autism* for more information on these special diets.

DIETARY INTERVENTION - REPORTED IMPROVEMENTS

Language
Attention and focus
Learning and cognitive function
Eye contact and socialization
Less hyperactivity and ADHD
Less Irritability and aggression
As well as physical improvements in: diarrhea / constipation, sleep, skin rashes

HEALING DIETS	BENEFITS
GFCF (Gluten-free and Casein-free) No gluten (wheat, rye, barley, spelt, kamut, and commercial oats) or casein (dairy)	• Easiest place to begin • Reduce gut inflammation and digestive symptoms[9] • Reduce opiates [6, 7, 8] • Reduction in autistic symptoms[10, 11, 12]
Food Sensitivity, Elimination/Rotation Eliminating or rotating all other food sensitivities: Soy, corn, eggs, citrus, peanuts, chocolate, cane sugar	• Follow up on GFCF to refine food sensitivities • Food sensitivities in ADHD[13, 14]
Feingold Diet/Failsafe Diet Removes food additives. Restricts high phenolic foods, including all artificial ingredients and high salicylate fruits such as apples, red grapes, and berries.	• Reduce hyperactivity[15] , behavior, irritability, red cheeks • Helpful when children have food addictions to: grapes, apples, artificial ingredients
Grain-Free Diets **SCD (Specific Carbohydrate Diet)** **Gut and Psychology Syndrome (GAPS) Diet** Restricts carbohydrates to only fruits, non-starchy vegetables, and honey. No grains, starchy vegetables, or mucilaginous fiber. **Paleo diet**: No grains, no beans, and no refined sugar.	• Often helpful for more severe gut inflammation, especially when gluten-free and casein-free is not enough. • People low in carbohydrate enzymes. Study of children with autism low in carbohydrate digesting enzymes[16, 17] • Study on SCD Diet showed benefit for inflammatory bowel disease[18]
Low FODMAPS Removes fermentable carbohydrates	• Studies on Crohn's and Colitis show Low FODMAPS was beneficial[19, 20]
Body Ecology Diet Balances gut flora and combines principles of anti-yeast diets including no sugar, acid/alkaline, fermented foods	• Anti-candida diet • Populating good bacteria
Low Oxalate Diet Restricts high oxalate foods (nuts, beans, greens)	• Study showed children with autism had high oxalates[21] • Helpful when oxalates contribute to pain, dybiosis, and poor cellular energy • Reduces inflammatory/pain related compounds



PRACTICE TWO - ADD NUTRITION

Stopping the offending foods gets you started. And the healing journey continues as you learn to understand and master using good nutrition to underscore any diet you choose.

When following any specialized diet, boosting nutritional intake is key. It's beneficial (and sometimes required) to introduce nutrient-dense and probiotic-rich foods to the diet. They supply your child's body with the vitamins, minerals, fatty acids, amino acids, and good bacteria it needs to promote healing. They need calcium and other nutrients that can be in short supply with picky eaters.

Many children with ADHD and autism (and others), have nutritional deficiencies such as vitamins B6 and B12, calcium, zinc, folic acid, and many others. This is partly due to our poor modern diet which is sorely lacking. These nutrients are vital to the functioning of the digestive tract, immune system, detoxification, brain function, and cellular function. It is imperative to get good nutrition, i.e. nutrients, into children, all children, and especially picky eaters and children with autism.

I'll teach you about adding good nutrition through the framework of the Nourishing Hope Food Pyramid.

NOURISHING HOPE FOOD PYRAMID

After working with dozens of healing diets and customizing approaches for the BioIndividual Nutrition™ needs of children with autism and other clients addressing varied conditions, I've distilled the "best of the best" foods and dietary principles for healing and healthy children. It's called the Nourishing Hope Food Pyramid.

Foods toward the foundation are easiest to digest, most nutrient-dense, most healing (and least likely to create a negative reaction). It serves as a guide and support for every healing diet and preventive approach to food and nutrition, and can be customized to fit any special diet. For example, grains (gluten-free) at the top means they would generally be eaten in smaller quantities (or for some. not at all) - they are the foods most likely to not be tolerated, so they are at the top.

I initally created the Pyramid to help children with autism focus on the most nutrient dense and easy to digest foods - based on my experience (research and clinically) that this approach was most healing and helpful. I also wanted a framework that would support all special diets, because each person is unique and there is no one-fits-all diet.

During the creative process of the pyramid, after giving careful thought to a dozen different healing diets and what they have in common that supports healing, I placed the foods and food groups on the pyramid. Upon stepping back, I realized that the foods at the core were what our ancestors ate (Paleo). This was an exciting confirmation for me--that the

foods we evolved eating are the ones we should focus on for good health and healing today.

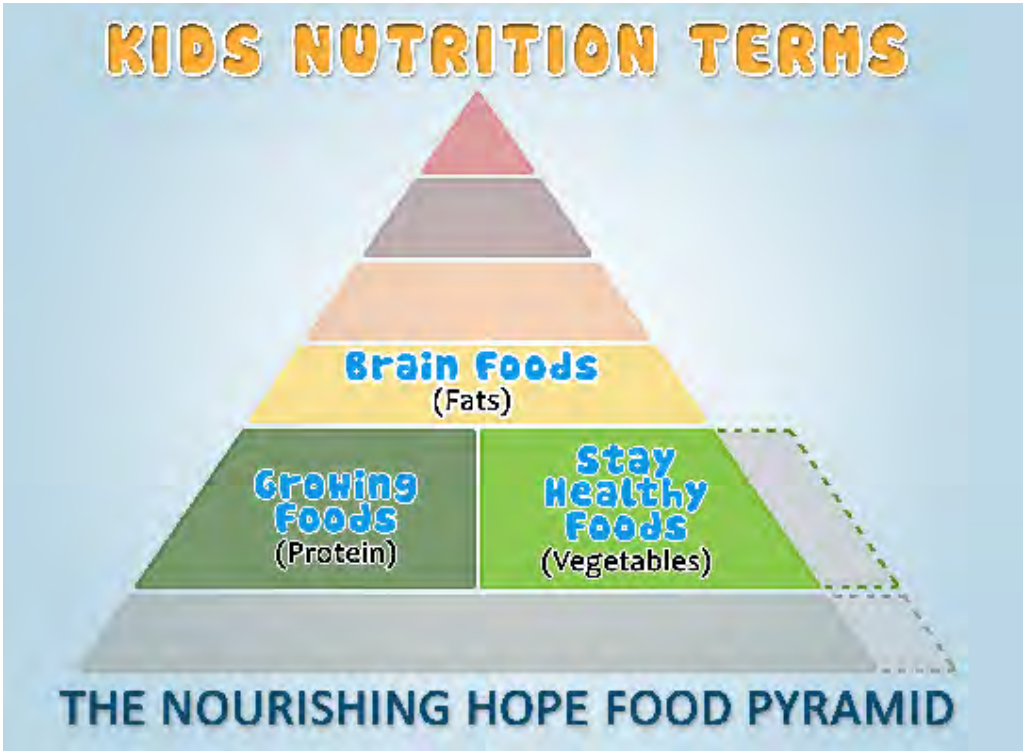
Let's explore some of the pyramid and share some of the nutrient-dense foods and ways to boost nutritional intake and provide the body the good bacteria the gut requires to be healthy.

Pyramid Foods to Focus on

Animal Protein. Protein provides all of the important building blocks, amino acids, for growth and healing. Animal protein supplies all of these essential amino acids in a form that's typically well tolerated and digested, as well as important fats and fat-soluble vitamins that are not available in plants. Red meat, poultry, organ meat, fish, and eggs are all healthy choices (assume there are no food allergies to them). Other plant protein foods such as nuts and beans are also included in daily protein choices; however, since meat is generally easier to digest and contains all of the essential amino acids needed for growth and repair, animal protein is the priority.

In the Nourishing Hope Food Pyramid model, as a nutrition learning tool for the kids, I call protein foods - "Growing Foods."

Vegetables. Getting more vegetables into your child can be challenging. They need to become comfortable with the texture and bitter flavors. Encourage eating vegetables by offering more of them at meals. It's helpful to begin by pureeing and adding the vegetable to things the child already enjoys eating, such as pancakes or muffins. Ideally, you'll do less of these grain-based, starch-rich foods but initially, any vegetables are good, as long as you are not adding more junk to make up for the vegetables. For kids, I call vegetables - "Stay Healthy Foods."



Good Fats. Fats are important for brain growth and development, cellular function, mood, learning, and many more needs. Getting a variety of fats from many sources including saturated fat is important: plant oils like olive oil, avocado, and coconut oil, fish oils, and animal fats too. Omega 3 supplementation has been shown to be helpful for ADHD[22, 23], as well as for improved speech in children with autism[24]. Processed and highly refined oils like canola, safflower, corn and soy, should be avoided because research shows oxidized oils have many negative health effects. In the Nourishing Hope Food Pyramid, good fats are referred to as "Brain Foods."

Nourishing Hope Principles

In the Food Pyramid, I include nine "Foundations," nutrition principles that make the foods most nutrient-rich and easier to digest. These include: grass-fed animal foods and organic produce, broths, fermentations, soaking and sprouting grains, etc.

I'll explain four of the principles here, you can learn more at my website NourishingHope.com.

Juicing - Juicing vegetables is a wonderful way to get concentrated nutrients. The nutrients are highly available and easy on digestion as they are already extracted from the pulp. This is a great solution for children that prefer drinking juice and may not like eating vegetables.

It's best to drink the juice immediately upon pressing—within 10 minutes. Don't over do it on sweet produce like carrots, beets, and fruits - use sweet vegetables and fruits mainly as a flavor accent. Try fennel, cucumber, and/or celery as a base with a couple green and colorful vegetables, and the sweeter ones as necessary.

Fermented foods contain live bacteria that are essential for good health. The most well known fermented food is yogurt. Good bacteria like lactobacillus acidophilus have dozens of positive biochemical functions. They create vitamins such as vitamin K and B-vitamins, crowd out bad pathogens making it inhospitable for them, and break down heavy metals, toxins, and spent hormones. Good bacteria aid peristalsis for preventing constipation and diarrhea, help reduce gas, and decrease inflammation.

Yogurt is most commonly made from dairy and not allowed on a casein-free diet. However, there are many other fermented foods that can be prepared. Parents can make their own homemade non-dairy yogurt with nut or coconut milk for example. In some cases, those that aren't casein-free may have a homemade dairy-based yogurt on SCD or GAPS Diet. You can add yogurt to smoothies or recipes. Additionally, kefir, a common dairy ferment, can be made with young coconut juice, a creative idea from the Body Ecology Diet. It is a fizzy, "soda-like" beverage, and can be mixed with fruit juice.

Raw sauerkraut is one of my favorites, and while many children won't eat store bought sauerkraut, you'd be surprised how many like a naturally fermented healthy variety (especially if they helped make it!). It's very sour and crunchy, so for children that like sour foods (lemons), they will love it. You want to find a brand that is raw and unpasteurized, or make it yourself. It's great tossed in a salad. You can use sauerkraut juice as salad dressings as well, or you can blend a little sauerkraut in the food processor with apple sauce. You only need a small bit of these powerful fermented foods throughout the day for them to be very effective in aiding digestion and boosting good bacteria levels.

Broths - Broths made from animal bones and vegetables are very rich in nutrients and available in absorbable forms. Bone broths like chicken broth contain natural gelatin that can aid digestion and healing. Adding vegetables can add even more minerals. You can add broths to soups and stew. You can also cook grains, beans, and gluten-free pasta in broths. It is essential that all broths are homemade, as most store bought versions contain MSG and/or do not contain important nutrients.

Supplementation - It is best to strive to get as many nutrients from food as possible; however, supplementation may be necessary in certain situations.

For example, on a dairy-free diet, your child may need more calcium than he can get from diet alone depending on his eating habits. For a child that has weak digestion and can't break down foods well, digestive enzymes can be very supportive. For a family with a certain genetic variant like MTHFR, other biochemical conditions such as pyroluria, nutrients may be required in specific forms or in amounts larger than one can typically get from food, and may require supplementation.

Research indicates that supplementation improves the symptoms of autism. One very comprehensive study by Dr. Jim Adams[12] demonstrated improvements in language, play, cognition, sleep, hyperactivity, and more, using nutrient supplementation.

See *Nourishing Hope for Autism* for more on supplements and their uses.

You Can Do It - Even Picky Eaters!

By avoiding offensive foods and boosting up nutrition, children with autism, ADHD, and many other childhood conditions can improve through natural healing processes. While following a special diet can seem daunting at first, it will soon become routine. There is no more immediate impact a parent can have than taking charge of diet. The scientific and practical evidence for concerted focus on diet and nutrition is strong.

Avoid offending foods, and boost up nutrition step by step. I suggest getting support from a qualified and experienced practitioner to help you ensure good nutrition while following any special diet. As I've explained, each child ultimately requires a bioindividual approach, so any single "diet" must always be adjusted. That is why you should also reach out to other parents that are nourishing hope, supporting each other, and sharing nuances and tips.

Even picky eaters benefit. I have had some very picky eaters come in to my nutrition practice—many children ate only bread and dairy, others subsisted on just pancakes and fries. But there are solid reasons why these children are so one-sided in their food choices, primarily craving.

For example, one biochemical reason for picky eating is, when the body creates opiates from foods, one can become addicted to them and thus crave nothing but those foods.

Children eventually narrow their food choices to include only those that make them "feel better" in the moment, though are hurtful to their body and mind. Their "picky eating" consists of only a few foods: often wheat and dairy-based foods.

It's common that once the child gets passed the cravings (several days to a few weeks), their food choices expand dramatically. Then it becomes much easier to evolve and sustain a specialized diet.

I know that any child's diet can change. It may take time and require great patience, but you can succeed—increasingly so as the body heals. Envision positive changes for your child, and project good thoughts and feelings that do wonders for you child and the success of your overall efforts.

Following a special diet takes commitment and diligence. You can do it. The rewards will last a lifetime for children with autism and beyond.

In the next part of this ***Get Started Guide***, I'll share tips and support for Picky Eaters, and in the final part, I'll give you a proven step-by-step method to making this work for you!

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Using Food and Nutrition to Improve ADHD & Autism

What if You Have a Picky Eater

By Julie Matthews, Certified Nutrition Consultant

Are you considering a special diet, like gluten-free/casein-free (GFCF), but your child is a picky eater?

If you are like many parents I know, you may be thinking, "My child is picky and inflexible. How will I ever get him to eat anything other than wheat and dairy? Never mind anything 'healthy.'"

It is quite common for children with autism, speech and language delays, and other conditions to be "picky eaters." In the 1940s, researcher Leo Kanner first noticed feeding issues in children with autism. Many factors influence this: sensory sensitivities or oral-motor challenges, nutrient deficiencies, anxiety, food addictions/cravings, and more. In this article, I will investigate this and explore what you can do to help your picky eater.

I've worked directly with hundreds of families on these issues, most are addressing food cravings or "addictions," factors that influence picky eating. For example, when the body creates opiates from foods (as with many children with autism) a child can become "addicted" and thus crave nothing but those foods.

Children eventually narrow their choices to include only foods that make them "feel better" (in the short term). It's worth trying to interrupt the pattern, because once the child moves past the cravings (a few days to a few weeks), food choices often expand dramatically and it becomes much easier to follow a special diet.

Most of my clients' children with autism initially eat limited amounts of vegetables, if any. Routinely though, once they begin a diet (and the cravings diminish and appetite increases), children begin eating more vegetables (or meat) - often for the very first time. Most of my clients report this type of positive experience after progressing with diet.

Parents are often very surprised to see their child expand their diet once the problematic foods have been removed. I have heard countless stories from parents who tell me that after they removed problematic foods (often containing gluten and casein), their child became less restrictive—and began to eat many new foods, including vegetables and protein.

Factors Affecting Picky Eating

There are many reasons for picky eating. As a nutrition professional, I'm investigating the biochemical reasons for picky eating - reasons that can often be addressed through particular attention to diet and nutrition.

To be sure, there are some children that are so self-limiting as to require additional assistance to broaden their diet - more on this later.

From a biochemical perspective, here are some solid reasons why children may become so one-sided in their food choices:

- "Addictions" to opiates (gluten/casein) can influence the self selection of primarily wheat and dairy containing foods. According to this theory, when gluten (wheat) and casein (dairy) are not digested properly and enter the bloodstream, the body creates compounds that mimic the effects of morphine. They trigger opioid receptors in the

NOTE: *Don't remove all foods with the expectation that "if they're hungry, they'll eventually eat." While this may be true for many children, some have real feeding problems and may stop eating altogether, which could be very problematic. Add new foods before removing others. Be sure to seek professional guidance from a feeding specialist or qualified clinician if your child won't add any new foods.*

brain and drive opiate (morphine-like) cravings/addictions. The child then becomes restricted to only the foods that fuel this addictive cycle, creating very limited and picky eating.

- "Addictions" to chemicals (MSG, artificial additives) can affect restriction to one brand or a strong preference for processed foods. These chemicals can also be addicting like opiates. MSG is known to create "excitement" in the brain by stimulating the glutamate (excitatory) receptor, making food seem to taste much better. Artificial ingredients such as artificial colors and flavors can also affect similar cravings.

- Nutrient deficiencies (such as zinc) can make all foods taste bad or bland. When zinc is deficient (a common finding in children with autism), one's sense of smell is reduced and food tastes boring or unappetizing. Texture can then become an even bigger factor - imagine eating mashed potatoes if you can't taste the potato flavor - it's a bland mouthful of mush.

- Yeast, viral, and microbial overgrowth may cause hyper focus on eating mainly high carbohydrate and sugar rich foods. Yeast and other microbes feast on carbohydrates and sugar. They can actually get their "host" (your child) to eat the food that feeds them by giving off chemicals that get kids to crave refined carbohydrates and sugar. This can create self-limitation to only these foods.

Investigating these biochemical factors is vital to your overall success at nourishing hope - the body-brain connection is proven science.

Support Team

Need help? An experienced nutrition consultant can gently guide your dietary changes; which foods to substitute when a food is removed, healthy foods to incorporate into the diet, and creative cooking ideas. Your biomedical or integrative physician can help support overall health and medical needs such as nutrient deficiencies, yeast overgrowth, and more. A feeding therapist, occupational or speech therapist, or behavior therapist can assist with varied picky eating needs.

A small number of children are "problem feeders" and/or have medical reasons for their limited eating and need professional support and therapy to address their more complex issues.

Sensory sensitivities can result in restricting foods of certain textures. For children with tactile and sound sensitivities, texture can be a hurdle. Crunchy foods can be too loud, mushy foods can become intolerable. Seek an occupational therapist or other professional that can help you work through these sensory integration challenges. A feeding therapist can help too. It's common that as sensory integration therapies begin to address food textures, a child's diet begins to expand even more.

If you suspect these more serious feeding issues, it's advised to work with someone and/or have your child assessed. And if this is a concern for you, do not try "sneaking" things into your child's favorite foods as they may lose trust and reject the food altogether in the future. Get help.

Few children suffer these *very* significant feeding issues - *most* will eventually expand their diet through concerted focus and effort.

Once you've identified possible causes of your child's finicky eating habits, begin to look for creative ways to address them and get support when you need it. If you have your child's trust around food and you're able to make some changes to your child's diet, consider the following ideas. If you are unsure, seek a professional evaluation first.

Make Nutritious Foods Enjoyable

Don't let picky eating stop you from implementing a special diet. Indeed, addressing these issues is essential to the effectiveness of any specialized diet because sometimes the diet won't expand until certain foods are removed. So, before implementing a special diet try to identify new (replacement) foods your child will eat. Then, after the problematic or addictive foods are removed, see if your child will expand little by little. In other words, find several breakfast, lunch, dinner, and snack options for the new diet, often making one-for-one substitutions with foods they already eat. This way, you are not removing any foods in an already restrictive diet. After initiating the new diet, such as GFCF, then begin to try adding new foods and some vegetables of varied texture. Even if your child has been on a diet for a while or has not yet begun to implement a

Nourishing hope takes persistence and patience; even the pickiest eaters can progress and benefit from improved diet.

new diet, there are suggestions below that can be helpful for getting new and nutritious foods into the diet.

Based on your picky eater's preferences, learn to make foods crunchy or smooth. Be aware that brand preference may be due to MSG or other additives that can be addictive, making that food "exciting." Add enough salt to make your "version" of their favorite more flavorful--don't go overboard but don't overly limit salt either.

Be creative! Begin to add vegetables where you can and slowly introduce foods slightly differently than they have had before. See if you can make food a little different each day--not so much that they reject it, but just enough that they don't expect sameness--and to get in new nutrients. Add purees to pancakes, applesauce, meatballs, or sauces. Try things in a texture they like. Make vegetables crunchy by making carrot chips, sweet potato fries, or vegetable latkes. Hide meat in pancakes (chicken pancakes). Try mixing or diluting a brand of food/beverage they like with a healthier version in very small amounts until the item is swapped for the new food - this works well for milks, peanut/nut butters, apple sauce and other foods that blend well.

Here are some good tasting ideas for introducing vegetables, fermented foods, and meat into a child's diet. I share many of these tactics and recipes in my Cooking To Heal cookbook and instructional videos.

Pureed vegetables:

- Add to muffins
- Add to pancakes ¼-1/2 cup puree per cup of pancake flour mix
- Include in meatballs, meat patties, and meat loaf
- Mix into sauces (i.e. tomato)

Shredded vegetables:

- Add shredded beets to chocolate birthday cake (let parents know)
- Add shredded carrots to muffins
- Add shredded zucchini to bread

Crispy texture vegetables:

- Make vegetables into chips (like potato chips). Use carrots, sweet potatoes, butternut squash, beets, parsnips, or other roots or dense vegetables. Try baked kale chips.

- Shred zucchini and other vegetables, and add to shredded potato for crispy vegetable/potato hashbrowns or latkes

Fermented foods:

- Shred apple and add 50/50 with raw sauerkraut to reduce sourness. Serve as shredded fruit salad.

- Puree raw sauerkraut or other cultured vegetables in food processor with apple sauce (or other fruit sauce)

- Add non-dairy yogurt (such as nut milk yogurt or coconut yogurt) to fruit and puree into a smoothie, or use a small amount of fruit and make a fruit-yogurt dipping sauce for fruit kebabs.

Animal Foods:

- For children who do not like the texture of protein, try pureeing cooked chicken breast and add it to muffins or pancakes. Chicken pancakes are simply a chicken breast and three eggs blended in a food processor into a batter and poured into a pan and cooked like any pancake. Or add a small amount of pureed cooked chicken (approximately ¼ cup, less to start) to a regular flour-based pancake or muffin recipe.

- Homemade bone broths are rich in nutrients. Use broth for soups or stews. Cook grains or pasta in broth. Add concentrated homemade broth to sauces.

MORE MEAL IDEAS & RECIPES in my next article HOW TO BEGIN AND SUCCEED AT A SPECIAL DIET

Here are some ideas to help picky eaters become introduced to new foods:

- Always provide food child likes in addition to one "new" food.
- Involve your children in food preparation of "new" food.
- Don't require them to do anything other than get familiar with it. Consider incorporating the food into therapy or play time.
- Inform them. Let child know whether it is sweet, salty or sour. Eat some yourself and tell them how delicious it is.
- First have them touch it and lick it without eating it.
- Let them chew it and spit it out.
- Start with only a small taste ~ 1/2 teaspoon. Let child determine amount.
- Try and Try Again! At least 15 times!
- Get creative. Try new food in preferred texture - crunchy, smooth.
- Avoid being emotionally "attached" - children sense anxiety. Keep mealtime calm. Visualize child eating/enjoying new food.
- Avoid forcing or pushing - maintain trust.
- Choose rewards or other encouragement – however not food-based rewards.
- Make sure whole family participates - serve everyone at the table.
- Make it fun!

Step-by-Step Progress

While it may be frustrating to cook food and have your child refuse it, try your best to avoid projecting negative energy or frustration. Children are very sensitive and pick up on your cues, which affect how they feel in general and about the food you are serving. Also, is/was mom or dad a picky eater? If so, try having the other person, who can project positive feelings about the food, feed the child.

Set yourself up for success by making sure that each meal includes something you know they will eat, along with the new food. Taste it yourself and make sure it tastes good.

Try introducing new foods at snack time - aim to replace crackers, chips and refined carbs that kids fill up on, making them less hungry and "motivated" for a healthy dinner. By offering a new and healthy food at snack, they may slowly begin a more nutritious diet; and if they turn it down, they will be hungrier for that healthy dinner.

Getting good nutrition is essential to good health and healing. Begin a special diet and add nutritious foods step by step. You can do it-and your child can too! I have seen countless children expand their diet. You'll be pleasantly surprised when they eat that first vegetable, and more!

Nourishing hope takes persistence and patience; even the pickiest eaters can progress and benefit - including your child.

In the final article of this *Get Started Guide*, I'll explain How to Begin and Succeed at a Special Diet.

This information stems from Julie's learning with clients that are picky eaters and parents' experiences. Julie is not a feeding specialist. This information is intended to help parents find creative ways to feed their children healthy food. It is not intended to replace professional feeding therapy or medical needs. Parents of children with serious feeding issues should seek professional and medical guidance.

Using Food and Nutrition to Improve ADHD & Autism

How to Begin & Succeed at a Special Diet

By Julie Matthews, Certified Nutrition Consultant

Parents of children with autism and ADHD are learning that making particular food choices can help their son or daughter become healthier and improve mood, learning, and behavior.

Nutrient deficiencies, food sensitivities and intolerances are common in children with autism, ADHD, and other childhood conditions. That's why a special diet and supplementation are often necessary.

Special diets are customizable food-focused strategies. Making the change from *not* considering the impact of food intake (standard American diet) *to giving* specialized attention (nutrition centered diet) is the key to promoting systemic healing. This is especially true for children with impaired digestive and immune systems (common in illnesses such as autism, asthma, allergies and ADHD).

When nourishing hope, you are removing foods that are not tolerated and boosting required nutrition/nutrient levels. Parents tell me the most significant benefits come from a multi-faceted plan that balances physician recommended approaches, proper supplementation, and nutrition-centered special diets.

Special healing diets can help children improve in many ways. When diets are correctly implemented, positive changes and improvements are often seen in nutrient status, gastrointestinal problems, language, learning, focus, attention, eye contact, behavior, sleep difficulties, toilet training, and skin rashes/eczema. Since every child is unique, each child benefits from a BioIndividual Nutrition™ approach and improvements will vary. Parents from around the world are beginning to share their stories of healing.

In Article 1 of this *Get Started Guide*, I explained the scientific rationale for giving specialized attention to children's diet and nutrition intake. And in Article 2, I gave an overview of various diet options known to be helpful, and explained core nutritious diet fundamentals. And in Article 3, I shared factors affecting picky eaters and strategies for helping them too.

Now let's explore *How to Begin and Succeed at a Special Diet.*

Understanding how to *begin* and then *progress* with special diet implementation will greatly increase your effectiveness.

First, I'll briefly review some of the special diets, then I will share simple steps for implementing any diet, and I will conclude with some meal ideas and recipes.

The removal of gluten and casein (GFCF diet), and the removal of grains and sugars (SCD/GAPS/Paleo) are two of the most common initial dietary recommendations.

Many parents begin with the GFCF diet - it's easiest - and children on the autism spectrum are often sensitive to gluten and casein, the proteins found in wheat and milk. These food intolerances are known to impact body and brain function. Even if a child has tested negative for a food allergy, studies and parent stories indicate that removal of gluten and casein can help physical and cognitive conditions in children in notable ways.

Also, diets that address underlying biochemistry and food intolerances

such as low oxalate and low salicylate diets, can be very helpful. See article 2 "*Nutrition and Diets That Help*" and *Nourishing Hope for Autism* for more on choosing a special diet.

Once you have determined a dietary direction, proper implementation of the diet is key. Having a plan helps mom be prepared, your child ease into it, and helps everyone succeed.

STEPS FOR SUCCESSFUL DIET IMPLEMENTATION:

1. **Get Educated** on the special diet. Learn about the omissions and substitutes, additional foods they include, and meal ideas compliant with the food list.
2. **Experiment** – Discover choices your child likes. Before removing any foods from the diet, identify new GFCF (or other diet) alternatives. This way you will already have options they'll eat – this will smooth their transition.
3. **Create a meal plan**. Develop a list of diet compliant foods and snacks your child will eat or that you would like to try making. Create a list of choices for meals and snacks.
4. **Shop** for special diet ingredients and foods according to your meal plan and purchase diet compliant flours, milks, and other cooking staples or ingredients to make the basics. Keeping your shelves stocked allows you to stay on track and always have food on hand when your kids are hungry.
5. **Begin diet implementation**. Each diet will have its own dietary implementation guidelines. Some diets have very specific rules and introductory phases: See individual diets (SCD, GAPS, Low oxalate, and others) for details. When beginning GFCF, parents often start by eliminating one group at a time: 1) Start by removing casein from the diet—for two weeks, then, 2) Remove gluten as well, and continue both (gluten-free and casein-free) for three to six months.
6. **Keep a journal** of changes in your child's diet and daily condition/symptoms. This will help you track the diet results, and provide you something to look back on and share with members of your support team for necessary guidance.

SOURCES OF GLUTEN TO AVOID

Gluten grains
- Wheat
- Rye
- Barley
- Spelt
- Kamut
- Triticale
- Oats (commercial) – GF oats are available

Gluten containing ingredients and foods
- Semolina
- Malt
- Hydrolyzed Vegetable Proteins *
- Dextrin and maltodextrin *
- Artificial flavors & coloring *
- "Spices" *
- Soy sauce (unless wheat-free) *
- Potato chips/fries *
- Sauces and gravies *
- Bologna and hot dogs *

may contain gluten, unless specified gluten-free

SOURCES OF CASEIN TO AVOID

Casein is found in all animal milk products (cow, goat, sheep milk, etc)
- Milk
- Cheese
- Yogurt and kefir
- Butter
- Cream, ice cream, and sour cream
- Whey

Casein containing ingredients and foods
- Milk chocolate
- Sherbet
- Galactose
- Casein, Caseinate
- Lactose in seasoning
- Lactalbumin, as natural flavor
- Artificial butter flavor
- Cool Whip
- Lactic acid *
- Canned tuna *
- Seasoned potato chips *
- Hot dogs and bologna (may contain) *

* May contain casein

Diet Details and Meal Planning – for GFCF and Grain-Free Diets

On the GFCF diet, gluten, the protein in wheat (as well as other grains including rye, barley, spelt, kamut, and commercial oats), and casein, (the protein in dairy), are removed from the child's diet. These proteins have been found to be problematic for many children on the autism spectrum, eating foods containing them can affect their body's physical and cognitive functions. Eliminating those foods (and ingredients containing these food proteins) from your child's diet and choosing healthier alternatives aids healing. Parents report that as children feel better, they also have better attention and learning skills because digestive disturbances and hyperactivity are minimized. Soy is also broken down by the same enzyme as gluten and casein, so soy is good to avoid as well when doing a GFCF diet.

In addition to the GFCF diet, there are several grain-free and starch-free diets, all with their own set of slightly different foods and rules: Specific Carbohydrate Diet (SCD), Gut and Psychology Syndrome (GAPS) Diet, and Paleo Diet.

For SCD/GAPS, starches and disaccharides are removed. These substances are poorly digested by children whose bodies lack carbohydrate-digesting enzymes and/or have an inflamed digestive system. When ingested, these starches/sugars that are not properly broken down can feed yeast and bacteria, and create greater inflammation and digestive problems. Paleo is also grain-free, but doesn't allow any beans (and sometimes includes sweet potatoes). Grain-free diets are often helpful for severe digestive conditions and when GFCF alone is not enough.

NOTE ON GHEE

Ghee is made from butter, but because the milk solids are removed it should be casein-free. However, because all of the solids might not be completely removed, children with serious dairy allergies should not eat ghee. Since it's difficult to know if you've removed all of the casein when making ghee at home, it's best to start with a ghee that is tested and certified casein-free (if possible) so you can feel more confident that the casein has been removed and whether it's tolerated. I find that most of my casein-free clients can use ghee without a problem, and because ghee is very nutritious many casein-free people enjoy including it in their diet.

Here are further details and resources on how to implement these diets. GFCF and SCD have very different underlying principles, and they are recommended for particular circumstances and needs, so dietary rules and implementation are specific to each diet. Confere with your pediatrician and nutritionist as you are implementing a special diet to ensure proper nutrition.

GFCF

When going gluten-free and casein-free you need to beware of hidden sources—gluten or casein can be an ingredient within some processed foods, and not be disclosed. With a few pointers it's possible to ensure you are fully avoiding these substances.

It is pretty easy to substitute your child's favorite foods with gluten-free options—GF waffles, GF pancakes, GF muffins, GF pasta are all readily available in stores. Organic GFCF hotdogs and chicken nuggets are also pretty close to the original gluten containing versions, and are easy to substitute. At the beginning, these "transition foods" are helpful, but remember, children do not need "kids foods" and you can create a healthier diet by avoiding processed products.

Breads are more difficult to substitute, since gluten's texture makes bread more challenging to mimic with gluten-free flours. As you try different brands of GFCF bread, consider making bread of your own. Gluten-free breads, with and without yeast, taste much better and have a fresher texture when made at home. You can make these homemade breads with or without a bread maker or any special equipment.

Many aspects of going casein-free are also easy to change: butter substitutes like ghee (see box) and coconut oil are delicious, healthy, and available in most health food stores. Regular cow's milk can be slowly diluted over time with dairy-free milk. Coconut yogurt is dairy-free and soy-free, casein-free puddings and ice creams are also nearly indistinguishable from their dairy versions.

Mac and cheese can be made fairly easily without any cheese substitute at all. Melted cheese such as on GF pizza is harder to mimic because of its gooey texture. Fortunately, there are a few products that are free of casein and caseinate, as well as soy-free, that can be used when you simply must have pizza!

Remember to add a calcium supplement and other nutritional supplementation to ensure nutrient needs are met. Digestive enzymes with DPP-IV can help breakdown gluten, casein, and soy in case of accidental infraction at a restaurant, or as a first step in implementing a GFCF diet.

GFCF MEAL IDEAS

Breakfast. Always try to serve a portion of protein such as eggs or sausage at breakfast. Try two or three of these ideas together such as: scrambled eggs, with bacon and a piece of fruit—unless breakfast already contains fat, carbohydrate, and protein together such as French toast or a smoothie.

- Eggs, scrambled eggs, an omelet, any style without milk
- Breakfast sausage. Store bought (with no nitrates/ites) or simply a homemade meat patty
- Bacon (no nitrates/ites)
- GFCF waffle or pancake (most frozen brands contain soy)
- GFCF toast with nut butter and/or butter substitute
- Gluten-free oatmeal or hot cereal
- French toast (GF bread)
- Organic Fruit
- Organic Fruit Smoothie (See Green Smoothie recipe)

Lunch/Dinner - Include a protein, vegetable, some fat, and a starch (the starch is optional and is eliminated on certain diets). Have hot leftover dinner for lunch by using a Thermos.

- Grass-fed/pastured Protein
  - o Meatballs - Ground beef, buffalo, lamb or any meat
  - o Burger – Ground chicken, beef, turkey, or other meat
  - o GFCF, nitrate/ite-free hotdog or sausage
  - o Homemade GF chicken nuggets
  - o Roasted chicken
  - o Chicken Pancakes (see recipe)
- Organic Vegetables
  - o Steamed or boiled vegetables with coconut oil melted on top
  - o Stir-fry vegetables
  - o Salad or carrot sticks
  - o Kale Chips (see recipe)
  - o Raw sauerkraut
- Organic Fruit
  - o Fresh fruit
  - o Cooked into a sauce like apple sauce or pear sauce

- Starch
  - o GF pasta
  - o Sweet potato or potato fries
  - o Rice or quinoa
  - o GF crackers or bread
- Additional lunch and dinner ideas
  - o GF sandwich w/lunch meat
  - o GF sandwich with sunflower seed butter and jelly (a peanut/nut-free PB&J)
  - o Stews & soups – Pureed or broth soup
  - o Casseroles

Snacks

- Chicken nuggets or chicken pancakes
- Celery or apple with nut butter
- Vegetables with hummus
- Potato chips or other chips (ideally with guacamole or other healthy dip)
- Carrot chips
- Vegetable latkes with apple sauce on top
- Smoothie (or frozen into popsicles)
- Vegetable juice (fresh made)
- GF French toast strips with coconut oil and a bit of salt (not sweet if possible)
- Fruit or apple/pear sauce
- Black olives & dill pickles
- Turkey rollups
- Meatballs (with dipping sauce)

GRAIN-FREE DIETS

Specific Carbohydrate Diet
Gut & Psychology Syndrome (GAPS)
Paleo Diet

There are a number of grain-free diets that have slightly different foods and rules. SCD/GAPS Diets share the same food lists (for the most part) - they elminate all grains, as well as other starches like corn and potatoes, although they allow certain beans. Paleo also avoids all grains, and all beans, while allowing small amounts of sweet potatoes and other tubers.

These diets allow carbohydrates, such as all non-starchy vegetables including broccoli, zucchini, green beans, and even winter squash. They also allow meat, eggs, nuts/seeds, fruit, and oils.

FOODS TO AVOID ON GRAIN-FREE DIETS	ALLOWABLE FOODS ON GRAIN-FREE DIET
• No grains • No corn • No products made from grains or starches (rice or potato milk) • No white or sweet potatoes (allowed on Paleo not SCD/GAPS) • No soy products • Certain beans are not allowed: garbanzo/chick peas, black-eyed peas, butter beans, fava beans, mung beans, pinto beans (No beans on Paleo) • No bean flours • No molasses • No corn syrup • No maple syrup • No artificial sweeteners (including sucralose or Splenda) • No garlic and onion powder • No pasta • No cornstarch, arrowroot powder, tapioca, agar-agar or carrageenan • No pectin in making jellies and jams • No baking powder • Many supplements are not allowed because of non-compliant fillers	• Meat • Eggs • Non-starchy vegetables • Fruit and 100% fruit juice not from concentrate • Nuts • Honey • Nut milk • Nut flours • Coconut flour • Oils • Spices (avoid blends with gluten) • Some beans: Dried white/navy beans and lentils (on GAPS), black beans, split peas, lima bean. (No beans on Paleo)

SCD and GAPS (and Paleo for that matter) are not intended as "low carbohydrate" diets, they are "specific carbohydrate" diets. Carbohydrates are important for children, so it is important to include sources of carbohydrate that are allowed on this diet, such as fruits, vegetables, certain beans and nuts, and yogurt (if consumed). While dairy is technically allowed on SCD, this diet was not originally developed for children with autism who have so many challenges with dairy. Most children will begin this diet without casein, and then add it back later if tolerated. It is important to work with a nutrition professional to make sure nutritional needs are met while following SCD.

Because there are many starches, thickeners, and non-compliant sugars in store bought foods such as sausage, nut milks, and apple sauce, parents following SCD often prepare more foods from scratch (than GFCF). However, once you get the hang of it, it is fairly easy to do—and the foods are more flavorful with more natural enzymes, nutrients, and higher quality ingredients than their prepared-food counterparts.

Grain-Free Meal Ideas

Grain-Free Breakfast - Serve some vegetables (or carbohydrate) with meals, including breakfast. Try two or three of these ideas together and include a protein and carbohydrate.

- Eggs: scrambled, an omelet, any style without milk
- Breakfast sausage, a homemade meat patty
- Chicken pancake (grain-free and nut-free)
- Banana pancake (nut-free)
- Nut butter pancake or muffin
- Butternut squash hash browns
- Sauted kale or kale chips
- Fruit
- Fruit Smoothie: Homemade nut/coconut milk, frozen/fresh fruit such as blueberries,

bananas, peaches, and pear, honey, 1 T melted coconut oil, non-dairy yogurt

Grain-Free Lunch/Dinner - Include a protein, some fat, vegetable and other allowed carbohydrate. Have hot leftover dinner for lunch (use Thermos).

- Grass-fed/Pastured Protein
  - Meatballs - Ground beef, lamb or any meat with pureed vegetables
  - Burger without bun
  - Homemade GF chicken nuggets (with nut-flour)
  - Any roasted chicken or meat
  - Stews & soups – Pureed or broth
- Organic Vegetables/carbohydrate
  - Squash fries
  - Raw sauerkraut
  - Potato-free vegetable latkes
  - Cauliflower mashed "potatoes" or "rice"
  - Steamed or boiled vegetables with coconut oil melted on top
  - Bean burger (not on Paleo)
- Organic Fruit/carbohydrate
  - Fruit cooked into a sauce like apple sauce or pear sauce
  - Fresh fruit

Grain-Free Snacks

- Chicken pancakes
- Celery or apple with nut butter
- Vegetables with homemade white bean hummus
- Carrot chips with guacamole
- Vegetable latkes with apple sauce
- Kale chips
- Smoothie (or frozen into popsicles)
- Vegetable juice (fresh made)
- Fruit or apple/pear sauce

YOU HAVE ALREADY BEGUN

Simply by reading this *Get Started Guide*, you have begun. Continue researching, asking questions, working with your child's doctor, and trying some healthy recipes.

These implementation basics will help you, and I've included some recipes from my Cooking Course, *Cooking to Heal.* (see below)

As you proceed, I suggest you have my book *Nourishing Hope for Autism,* as well as *Cooking To Heal* and the *Nourishing Hope Food Pyramid.* I've put over ten years research and clinical experience into these tools and have designed them especially to support your success.

There is no question that foods and nutrients can impact the symptoms of autism - hyperactivity, inattentiveness, learning, and behavior. As a parent or clinician, the foods and substances you recommend and feed to children matter greatly.

Making the most informed and helpful diet and nutrition choices for our children while believing in the possibility of a brighter future is the essence of nourishing hope.

Chicken Pancakes

GFCF/ SCD/GAPS/LOD/BED, Nut-Free

1 chicken breast precooked
(season as desired while boiling)
3 eggs
½ teaspoon salt

Blend ingredients together in food processor until completely smooth. Mixture will look like thick pancake batter.

Add a dollop of batter to hot, greased pan and cook like a pancake. Batter may need to be spread out into a pancake shape so it's not too thick.

Crispy Kale

GFCF/ SCD/GAPS/BED/FG, Egg-Free/Nut-Free

Directions

Rinse kale leaves and dry.
Remove stem and main vein of kale stalk.
Brush with olive oil
Season with salt and any other herbs you'd like.
You can also use lavender or rosemary salt.

Heat oven to 350 degrees. Place stalks directly on oven rack and cook for 3-6 minutes. Watch closely so they don't burn. Should be nice and crispy. Lightly brown around edge.

Green Smoothie

GFCF/ SCD/ GAPS/LOD

Cooking to Heal™ RECIPES

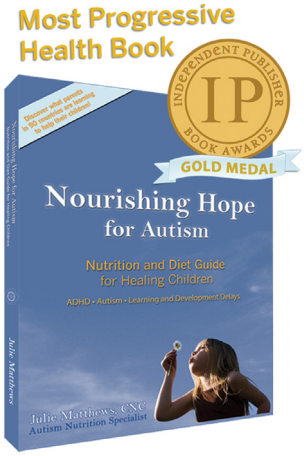
Because of kale and these other low and medium oxalate ingredients, you can enjoy this green smoothie as part of a low oxalate diet. Use lacinato kale for lowest oxalates.

Ingredients

1 cup mango (fresh or frozen)
1/2 cup berries (fresh or frozen)
1 banana
1/2 avocado
5 kale leaves destemmed (about one cup of kale)
12 oz of water, or fresh fruit or vegetable juice
2 dates (optional if the berries are on the sour side)
Blend together in a blender and serve.

Visit **NourishingHope.com** for more FREE recipes!

DIET & NUTRITION LEARNING TOOLS

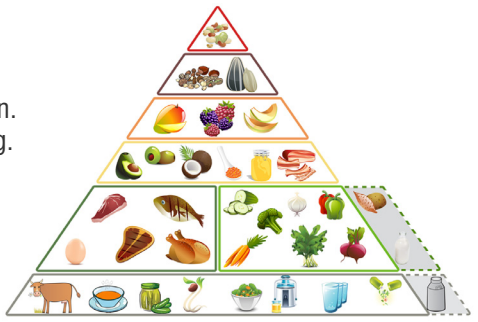


NOURISHING HOPE FOR AUTISM

Autism diet and nutrition intervention guide for parents and professionals. Provides the scientific **WHY** and **HOW** various diets help children find relief from the symptoms of autism and ADHD. Contains step-by-step nutrition guide based on extensive clinical experience and research.

Readers will know:

- Why diet and nutrition affects health, learning, and behavior.
- The scientific rationale for specialized diets and supplementation.
- Positive effects of specific nutrition on biochemistry and healing.
- How to choose a diet, get started, and measure progress.
- Most effective diet options; including GFCF, SCD/GAPS, Body Ecology, Feingold, Low Oxalate, Paleo, FODMAPS & more.
- Creative ways to help "Picky Eaters" with kid-approved strategies.



THE NOURISHING HOPE FOOD PYRAMID

COOKING TO HEAL

Inspiring nutrition and cooking class with Special Diet Cookbook (diet compliant recipes.) Learn to follow any special diet; how to provide good nutrition, address food restrictions and sensitivities, and still create meals that your family (and picky eaters) will love. **4-hours of VIDEO.**

You will get:

- Special Diet Cookbook with recipes tagged for special diet compliance (GFCF, SCD/GAPS, etc)
- 4 hours of cooking demonstrations and explanations: substitution ideas, "how to" advice, meal planning tips and ideas.
- Charts/Resources & Special Report: including Cooking Fats and Temperatures, 15 Ways to Save Money on Special Diets, and more!
- Digital access too! View color cookbook/videos on your tablet/computer

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Attention Diet & Nutrition Practitioners

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ABOUT JULIE MATTHEWS

Julie Matthews is an internationally respected Certified Nutrition Consultant specializing in autism spectrum disorders. She is an expert in applying food, nutrition, and diet to aid digestive health and systemic healing. Her guidance and learning tools stem from extensive research and applied clinical experience. Julie supports parents of children with autism from around the world and collaborates with pediatricians, family doctors, and researchers. She educates at the leading autism conferences, writes for varied publications, and has a private nutrition practice in San Francisco, California. Julie is the author of Nourishing Hope for Autism, Cooking to Heal, and Using Food and Nutrition to Improve ADHD and Autism.