

Personalized Nutrition for Anxiety, ADHD, and Autism

Understanding
Food Intolerances
and
Therapeutic Diets

By Julie Matthews



Table of Contents

Introduction to Personalized Nutrition	2
BioIndividual Nutrition®	3
Personalized BioIndividual Nutrition Benefits All Health Conditions... ..	4
Food Intolerances and Therapeutic Diets	5
Phenols	6
Salicylates	7
Low Salicylate Diet	8
Amine and Histamine	9
Low Amine Diet	10
Food Allergens and Sensitivities.....	11
Elimination Diet.....	12
Rotation Diet	13
Grain-Free Diets.....	14
Disaccharides and Polysaccharides.....	14
Specific Carbohydrate Diet	15
Gut and Psychology Syndrome (GAPS) Diet	16
Paleolithic Diet	17
Autoimmune Paleo Diet	18
Ketogenic Diet.....	19
Oxalates	20
The Low Oxalate Diet	21
FODMAPs.....	22
Low FODMAPs Diet.....	23
Lectins and Lectin-Free Diet	24
Sulfur and Low Sulfur Diet.....	25
Body Ecology Diet	27
Nightshades and Nightshade-Free Diet.....	28
Conclusion	28

Julie Matthews is not a physician. She does not diagnose or treat disease. This information and her statements are not intended to replace a one-on-one relationship with a qualified healthcare professional and is not intended to provide medical advice. For medical advice, always seek a physician. This is for informational purposes only and is solely as a sharing of knowledge and information based upon the experience and research of Julie Matthews and Nourishing Hope. Nourishing Hope® and BioIndividual Nutrition® are registered trademarks of Julie Matthews.

Introduction to Personalized Nutrition

Personalized nutrition is about customizing nutritional intervention to the specific needs of each individual.

Each person is unique. They have different genetics, prenatal nutrition, birth experience, childhood experiences, health history, pathogen exposure, diet, nutrient intake, and lifestyle. People's biochemistry, metabolism, and microbiome are different.

Therefore, our food and nutrition needs are different and need to be personalized.

Functional medicine doctors, nutritionists and researchers are realizing that a personalized nutrition approach leads to the best results for clients and will be the way nutrition is practiced, now and into the future.

A recent position paper by The American Nutrition Association entitled "Toward the Definition of Personalized Nutrition: A Proposal by The American Nutrition Association"¹ explained the importance of utilizing Personalized Nutrition (PN) to support clients and patients optimally.

"PN [Personalized nutrition] is a field with great potential to address chronic disease and optimize human health and performance."

For 20 years, I've been a Certified Nutrition Consultant and published researcher helping create personalized nutrition (BioIndividual Nutrition®) plans for my clients. And I have seen how a personalized nutrition approach helps clients the most.

BioIndividual Nutrition®

BioIndividual Nutrition® is a methodology of the science and practice of personalizing diet and nutrition strategies to meet the unique biochemical and underlying needs of each individual.

I developed this approach through years of clinical nutrition practice with complex neurological, digestive, and immune conditions, including autism. I recognized that clients responded differently to various foods and dietary strategies, and that they did best when I honed a *personalized* diet and nutrition plan to meet each person's unique biochemistry and specific underlying needs.

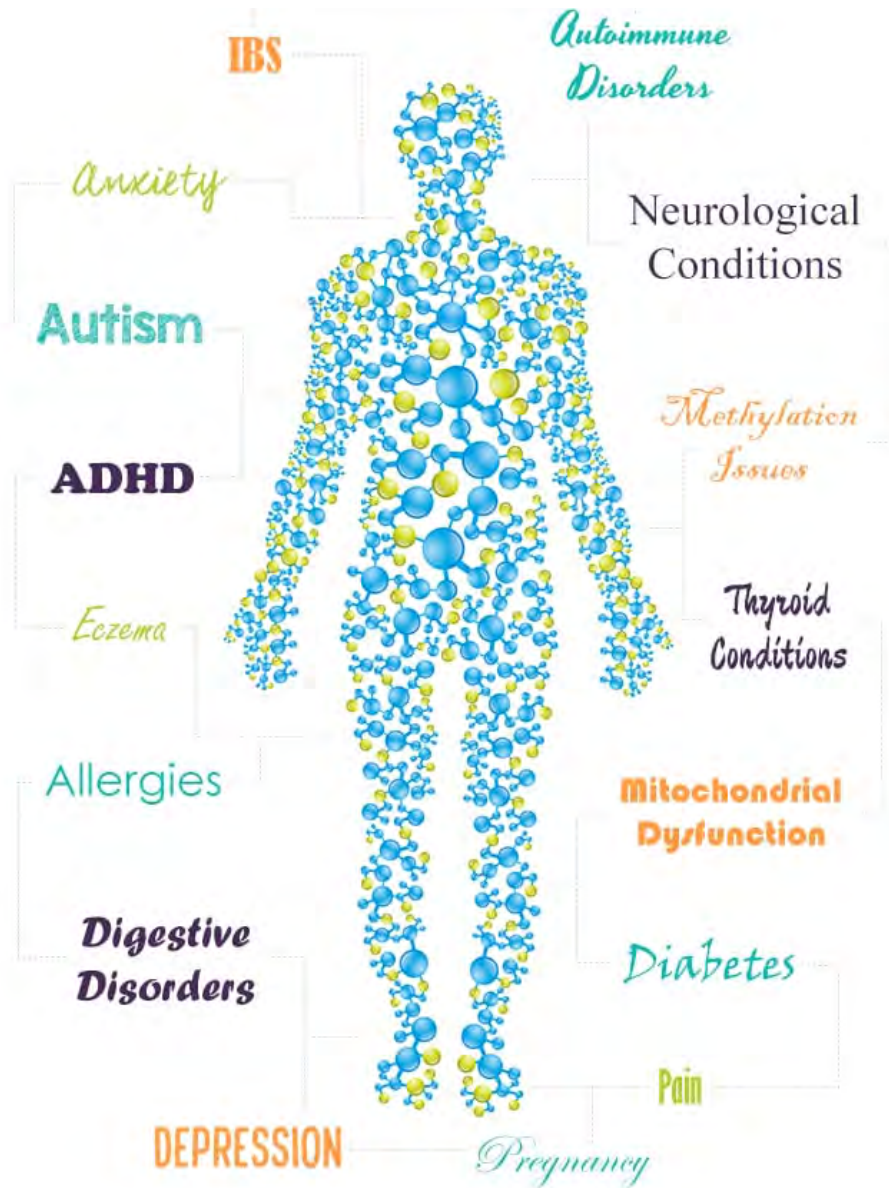
Because BioIndividual Nutrition addresses underlying factors, it helps children and adults with anxiety, ADHD, autism, as well as IBS, autoimmune challenges, or many other conditions.

Foods affect chemistry and in turn, the body's biochemistry influences the foods an individual can tolerate/eat. Instead of trying to apply one diet for all people, a BioIndividual Nutrition approach integrates dozens of diet strategies, and closely examines relationships between symptoms and underlying biological pathways.

The latest nutrition science shows that many people with chronic health conditions suffer with issues relating to **oxalates, salicylates, amines, histamine, glutamate, and FODMAPS**, as well as poor **mitochondrial function, methylation, transsulfuration and sulfation**.

A personalized BioIndividual Nutrition approach addresses these factors and is essential.

Personalized BioIndividual Nutrition benefits all health conditions...



Food Intolerances and Therapeutic Diets

This guide will walk you through some of the common food intolerances and the corresponding therapeutic diet(s) that can be helpful.

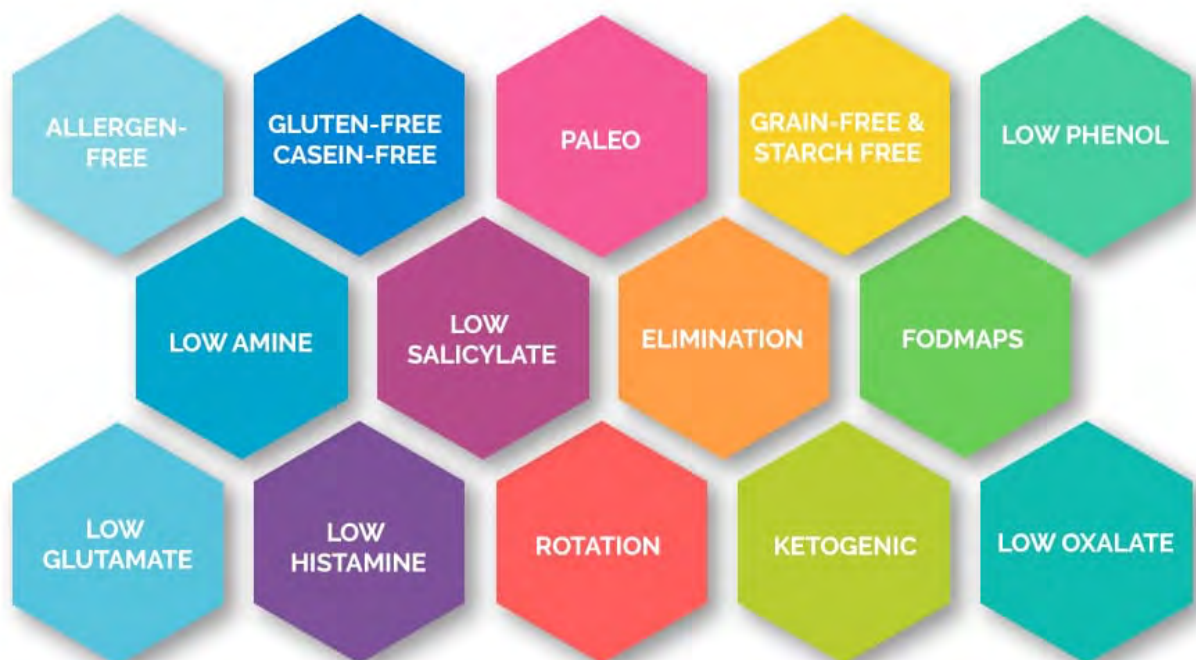
I teach these same concepts and principles to practitioners through my BioIndividual Nutrition Institute.

Finding the triggers that are causing issues is the first step in moving forward with a personalized therapeutic diet for health and healing.

Are you ready to dive in?

I am going to break these principles down into easy-to-understand sections which will make it simple for you to make the changes necessary to support your own healing and wellness.

Let's get started!



Phenols

Phenols are in many fruits, vegetables, and spices. And phenols are often artificially added to processed foods – artificial coloring, artificial flavoring, and artificial preservatives such as BHA, BHT, TBHQ are all phenols that many people struggle to metabolize adequately.

Phenols require a biochemical process called sulfation. People with ADHD, autism, IBS, and depression tend to have low sulfation. When sulfation capacity is reduced, there isn't enough of the enzyme, phenol sulfotransferase (PST)², needed to break down these phenolic compounds.

Phenols can then act as a neurotoxin and cause hyperactivity, irritability, aggression, inattentiveness, headaches, sleeping challenges, as well as being an inflammatory agent leading to skin rashes and red cheeks and ears.



There are several types of phenols and related compounds that people can have an intolerance to: particularly, salicylates and amines.



Salicylates

Salicylate or salicylic acid is the substance in aspirin, isolated from white willow bark. It is also found in many other nutrient dense foods. When it cannot be broken down properly, it can cause significant symptoms in children and adults.

Salicylates are natural substances created by plants, a type of phenol, used as a defense mechanism against organisms eating the plant.³ But these natural food chemicals can also negatively affect humans, particularly those that can't process them well.

High Salicylate Foods 			
Fruits	Vegetables	Herbs & Spices	Additional
Grapes Strawberries Blueberries Raspberries Apples (most) Watermelon Peaches Nectarines Plums	Red bell peppers Cucumbers Pickles Tomato sauce Spinach Zucchini	Cinnamon Cloves Rosemary Thyme Turmeric Ginger	Almonds Honey Ketchup  NOURISHING HOPE JULIE MATTHEWS

Low Salicylate Diet

A low salicylate diet can help children and adults⁴ suffering from a range of behavioral, neurological, and physical symptoms including challenges with hyperactivity, anxiety, mood, irritability, focus, and sleep.

A low salicylate diet removes high salicylates foods, and then is refined to only eliminate those that cause a reaction in the individual. A low salicylate diet removes many but not all fruits, as well as some vegetables and other foods. Once you get the hang of it, there are many foods you can eat and enjoy on a low salicylate diet.

Low Salicylate Foods 			
Pears Golden delicious apple Red delicious apple Lemon Mango	Beans Brussels sprouts Butternut Squash Cabbage Carrot Celery Green beans Lettuce (head) Potatoes (white) Rutabagas	Chives Garlic Green onions Vanilla Salt	Cashews Carob Maple syrup Meat Rice





 **NOURISHING HOPE**
JULIE MATTHEWS

Amine and Histamine

Amines are in foods that involve fermentation or protein breakdown, and can be found in both fresh produce (bananas, avocados, and tomatoes) and processed foods (cheese, chocolate, fish products, and yeast extracts).

Histamines are the most well-known type of amines, as everyone knows someone who suffers from hayfever and needs to take antihistamines regularly. But you or your child can also consume histamines in their food, leading to long term inflammation, anxiety, skin irritation, diarrhea, and headaches.⁵

Amines can cause any of the physical and behavioral symptoms of salicylates above, as well as migraines, dizziness, nausea, acid reflux, irritated or itchy skin, trouble falling asleep, facial flushing, and gastrointestinal cramps.

High Amine Foods		
Fermented Foods	Aged, Cured, or Canned Meat or Fish	Fruits, Vegetables, Nuts
Fermented soy: soy sauce, tofu, tempeh, miso	Aged, smoked, or canned fish	Avocado
Vinegar: balsamic and red wine vinegar	Cheese, especially aged	Bananas 
Sauerkraut 	Cured and processed meats, such as: salami, hot dogs, ham, and bacon	Citrus
Beer	Fish and shellfish (especially less fresh) 	Papayas
Mustard		Tomato
Wine, red wine, champagne		Walnuts
Yeast/yeast containing food	 NOURISHING HOPE JULIE MATTHEWS	Sunflower seeds
		Eggplant
		Peanuts
		Chocolate
		Cocoa
		Coffee
		Black tea
		Mushrooms

Low Amine Diet

A low amine diet removes foods high in amines and those that liberate histamine. A low amine diet avoids aged, canned, processed, and cured meats and fish; instead, focusing on fresh meat and fish. It includes vegetables and fruit low in amines, such as: asparagus, squash, green beans, carrots, zucchini, potatoes, and apples.

A low amine diet can be very helpful for those that need to reduce the histamine and amine they are exposed to through food. Because certain amines and salicylates are processed similarly some people benefit by avoiding both of these food compounds.



Food Allergens and Sensitivities

Most common food sensitivities are:

- Gluten
- Casein
- Soy
- Corn
- Eggs
- Citrus
- Nuts
- Peanuts
- Seafood
- Chocolate
- Sugar



They can cause physical, gastrointestinal, and neurological symptoms, such as gas, diarrhea, constipation, hyperactivity, ADHD, nausea, headaches, runny nose, pain, anxiety, and depression.

Elimination Diet

An elimination diet is a short-term process that helps you identify and address food sensitivities, such as an IgG antibody response, food allergy, or other inflammatory response. Elimination diet that removes gluten, dairy, among other foods, has been shown to be helpful for attention deficit hyperactivity disorder⁶, as well as anxiety and other neurological conditions.

By removing certain foods, you can look for the reduction of symptoms to see if you are on the right track. Then, an elimination diet often has a "provocation" phase where foods are reintroduced a few weeks later to determine which are tolerated and which are not. Once food reactions are determined, depending on the reaction and reason, some foods may need to be avoided for the short term or long term.



Elimination Diet Avoids



Rotation Diet

The rotation diet is similar to the elimination diet, in that you remove different foods from your diet in order to figure out if they're causing a reaction. In the case of a rotation diet, you rotate different food groups over a period of two to four days – so on a four-day rotation diet if you eat chicken on the first day, you don't eat it again until four days later. Some individuals with food sensitivities or mild allergies adopt a rotation diet long-term to prevent food reactions, as the short-term break from the foods can reduce the inflammatory response and allow them to be better tolerated.

Committing to a long-term rotation diet can be challenging, but many clients of mine enjoy the flexibility of being able to eat favorite foods sometimes.

Grain-Free Diets

Grains and starches can be difficult to digest for some people, such as those with microbiome imbalance and gastrointestinal disorders, and can cause irritation – and even inflammation – of the gut, impacting the gut microbiome. The gut and brain are connected, so inflammation in the gut and disruption of the microbiome can lead to neurological symptoms including anxiety, depression, hyperactivity, irritability, and more.

Some people have an imbalanced microbiome or poor carbohydrate digestion. Gastrointestinal issues⁷, as well as reduced carbohydrate digesting enzymes and microbial imbalance are very common in digestive disorders, as well as neurological conditions including autism.⁸ Reducing starch and grain intake gives the gut a chance to heal.

Disaccharides and Polysaccharides

There are many diets that avoid grains and starches. The Specific Carbohydrate Diet and the Gut and Psychology Syndrome Diet, explained below, focus on removing disaccharides (two-molecule sugars) and polysaccharides (grains and starches) from the diet, because their focus is on healing the body through the gut. The remainder of the grain-free diets can help the gut as well, but their principles are different, and they have different goals.

Grain-Free Diets include:

- Specific Carbohydrate Diet
- GAPS
- Paleo
- Autoimmune Paleo

- Ketogenic Diet

Specific Carbohydrate Diet

The Specific Carbohydrate Diet (SCD) is designed to restrict disaccharides (double-sugars) and polysaccharides (starches); however, natural monosaccharides, such as honey, fruits, and non-starchy vegetables are allowed. SCD was developed on the basis that some individuals struggle to digest carbs, due to damaged mucosa in the small intestine.⁹ An inability to digest double sugars – which are eaten by gut bacteria and yeast – causes microbial overgrowth and restricts enzymes from breaking down carbohydrates further. This contributes to more damage in the gut.

Avoiding eating double sugars and starches should bypass this and help to heal the gut.

It is often used to help those with gastrointestinal symptoms like chronic diarrhea and intestinal pain.

SCD/GAPS Foods Not Allowed			
All Grains	Starches	Certain Legumes	Sugars
Amaranth Buckwheat Corn Millet Oats Quinoa Rice Wheat	Potatoes Sweet potatoes Arrowroot Tapioca starch	Cannellini beans Garbanzo beans Pinto beans Soybeans	Cane sugar Corn syrup Fructose Maple syrup Sugar

Gut and Psychology Syndrome (GAPS) Diet

The Gut and Psychology Syndrome (GAPS) diet is based on the diet principles on the Specific Carbohydrate Diet above, with a few changes and additions.

The GAPS diet is named for the link between the gut and brain, and more emphasis is placed on bone broths and eating fermented foods to help heal the gut microbiome. This diet was created for people with gastrointestinal problems that are causing neurological symptoms.



Paleolithic Diet

Known as the caveman diet, The Paleolithic (or paleo) diet has been designed to mimic the diet of our ancestors, before we began to farm and process our food. As the paleo diet is hunter-gatherer in style, the emphasis is on wild fish, grass fed beef, free-range chickens and eggs – along with vegetables, fruit, mushrooms, and nuts.

Since this diet avoids grains it is used to counteract gastrointestinal issues, and was first introduced for this purpose by gastroenterologist, Walter L. Voegtlin in 1975. Paleo has become popular with a wider audience due to the emphasis on wholefoods, and avoiding processed food, but most importantly those who follow the diet have a wider, more diverse microbiome, which can reduce gastrointestinal symptoms.¹⁰

The Paleo diet restricts grains, legumes, dairy, and refined sugar.



Autoimmune Paleo Diet

A stricter form of the Paleo Diet, often used to counteract the symptoms of autoimmune disorders, the diet further restricts foods that can cause inflammation in some individuals.¹¹

This diet removes the foods on Paleo and others, including grains, legumes, dairy, eggs, nuts, seeds, alcohol, coffee, food additives, processed foods, and nightshades.



A grain-free diet can often help when you've tried a gluten-free diet but it's not enough to relieve your digestive symptoms. Many of my clients with autism have made a dramatic shift physically, cognitively, and behaviorally from an SCD, GAPS or Paleo diet.

Ketogenic Diet

The ketogenic diet is similar to the paleo diet, in that it avoids several foods very high in carbohydrates such as grains and starches. However, this diet is radically different in its macronutrient ratios and purpose. The ketogenic diet is a very high fat, very low carbohydrate diet that uses fat (not carbohydrates) for energy. Designed to reduce seizures in children with epilepsy, it has a number of neurological benefits including improving behavior in children with autism.¹²

Because it is a restrictive diet, it is important to work with your doctor, and have an understanding of supplementation. The keto diet places an emphasis on healthy fats, adequate protein, and vegetables, but restricts most fruits.

The ketogenic diet restricts most carbohydrates including grains, fruits, sugar, honey, starches, beans.

The ketogenic diet can make a huge difference for clients with certain metabolic conditions, seizures, and neurological disorders.



Keto-Friendly Foods



Meat



Lemon/Lime



Fish



Macadamia nuts



Fats



Pecans



Avocado



Brazil nuts



Berries



Coconut


Most non starchy and sugary vegetables

Oxalates

Oxalate is an antinutrient found in plants, where they have a number of functions, one of which is to deter animals from eating their leaves.

Normally, your gut microbiome deals with oxalates, but an imbalance in your gut bacteria can lead to higher oxalate levels. High oxalate levels can be a problem, as they can lead to malnutrition, and, through leaky gut, can scatter around the body causing inflammation.

Oxalates can cause mineral deficiencies, dysbiosis, and mitochondrial dysfunction. High oxalate has even been linked to chronic disease, autoimmune conditions, and autism.¹³

High Oxalate Foods		
Spinach Swiss chard Beans Beet greens Beets Okra Plantain Potatoes Sweet potatoes Rhubarb	Kiwi Raspberries Blackberries Guava Pomegranate Buckwheat Amaranth Quinoa Cocoa powder Chocolate	All nuts Peanuts Cashews Almonds Almond flour Chia seeds Sesame seeds  NOURISHING HOPE <small>JULIE MATTHEWS</small>

The Low Oxalate Diet

The low oxalate diet is designed to restrict the intake of high oxalate foods, with the understanding that there is no way to eradicate oxalates from the diet completely. Instead, the diet concentrates on limiting exposure where possible, with some flexibility. Low oxalate is a helpful tool to use alongside diets like GFCF or SCD to fine-tune and personalize your diet.

Oxalates are very high in spinach, nuts, seeds, legumes, grains, certain fruits, sweet potatoes, beets, chocolate.

Oxalates can cause pain, inflammation, sore joints, pain when urinating, fatigue, anxiety, brain fog, slow growth, gastrointestinal issues, and microbiome imbalance.



FODMAPs

FODMAPs stands for fermentable oligo-, di-, monosaccharides and polyols – which are short chain carbohydrates and alcohol sugars that the body finds hard to digest. Instead, when you consume FODMAPs, they travel to the gut and are a food source for your gut microbiome. Unfortunately, when gut bacteria eat FODMAPs they can produce hydrogen or methane gas – causing gastrointestinal discomfort in sensitive people. FODMAPs can also trigger diarrhea by bringing liquid into the gut. FODMAPs have been linked with IBS, and a Low FODMAPs diet has shown to reduce IBS. ^{14, 15}

Dysbiosis and gut inflammation are common with FODMAP intolerance. And as we've discussed, dysbiosis and gut inflammation can lead to neurological symptoms including low mood, anxiety, brain fog, poor cognition, and more.



Low FODMAPs Diet

Low FODMAPs Diet restricts fructose, cow and soy milk, wheat, legumes, certain fruits (including, apples pears, watermelon, and cherries), certain vegetables (including brussels sprouts and the onion family).

While FODMAPs can cause symptoms in some individuals, they are prebiotics, sources of fiber that help the growth of beneficial bacteria. It is important to know when and how to effectively use a low FODMAPs diet and when not to. I have resources for both individuals and practitioners that I will share more on later.

Foods avoided on a Low FODMAPs Diet

Fructans	Galacto-Oligosaccharides	Polyols	Fructose	Lactose
Artichokes	Beans	Apples	Agave	Cottage cheese
Asparagus	Legumes	Apricots	Apple	Cream
Barley	Lentils	Avocado (½ is high, ¼ is medium)	Fructose	Dairy, all
Beets	Almond	Blackberries	Fruit juice concentrate	Ice cream
Blueberries	Apple	Canned fruit	High fructose corn syrup	Milk, any fat content
Brussels sprouts	Cashew	Cauliflower	Honey	Ricotta cheese
Cabbage	Honey	Cherries	Mango	Soft cheese
Chicory and dandelion tea	Onion	Dates	Pear	Yogurt (24 hour ferment only allowed)
Custard apples	Peas: green, and sugar snap, dried	Figs	Persimmon	
Garlic	Pistachio	Lychees	Sugar snap peas	
Green onion, bulb/white part	Soy	Mushrooms	Watermelon	
Inulin and FOS		Nectarines		
Leeks		Peaches		
Onion		Pears		
Peas		Plums and prunes		
Persimmon		Snow peas		
Rambutan		Sugar alcohols – sorbitol, mannitol, maltitol, and xylitol		
Raspberries		Watermelon		
Rye				
Watermelon				
Wheat				



NOURISHING HOPE

JULIE MATTHEWS

Lectins and Lectin-Free Diet

A lectin-free diet is designed to reduce gastrointestinal distress, and toxicity.¹⁶ Raw beans contain high levels of lectin, which can be dangerous for humans, but once cooked, the legumes contain a manageable amount for most people. However, for an individual with sensitivities, remaining lectins can cause issues in the gut, as they can bind to the cells that make up the gut wall.

Lectins are found in legumes, peanuts, nightshade vegetables, dairy, grains.



Sulfur and Low Sulfur Diet

Sulfur is a very important mineral in the body. And while the body needs sulfur to aid the detoxification pathway, some people are unable to tolerate large amounts in their diet. You or your child may have limited tolerance to thiol, a sulfur compound found in many foods and needed to make cysteine – one of the amino acids that make up glutathione.

The cystathionine beta-synthase (CBS) enzyme is important sulfur metabolism and detoxifying excess sulfur. The process of recycling sulfur requires a lot of energy on a cellular level, contributing to low ATP levels. Eating foods containing sulfur only makes the problem worse.

Alternatively, a sensitivity to sulfites is also possible – these additives often used as a form of food preservation in processed food but found naturally in other foods. When sulfites cannot be converted to sulfate, sulfites can build up. As a result, you or your child may struggle to handle sulfur and sulfite, and this can cause gastrointestinal upset.



There are also links between a diet high in sulfur and microbiome imbalances, and certain sulfate-reducing bacteria produce hydrogen sulfide gas which can be harmful to the individuals.⁷ Hence, a low sulfur diet can be beneficial with those who have dysbiosis.

With all of this said, sulfur is very important to detoxification and hundreds of functions in the body, so while short term reduction in sulfur may be helpful, it's not usually recommended for long term reduction.

Sulfur is in the following foods: cruciferous vegetables, onion family, some nuts, cow's milk, hard cheese, eggs, seafood, several types of meat, peaches, and apricots.

Body Ecology Diet

The Body Ecology diet works on the basis of avoiding feeding yeast. Yeast overgrowth in the gut can contribute to an imbalanced microbiome, and lead to inflammation in the gut and beyond – affecting nutrient absorption. Overuse of antibiotics can make this much worse, and yeast overgrowth can contribute to leaky gut and food sensitivities. The Body Ecology Diet combines aspects of different diets to avoid the foods that yeast loves, including sugar, starches, and vinegar-based fermented food, while balancing acid and alkaline forming foods. The object of Body Ecology is to reduce or eliminate these foods, in order to rebalance the microbiome and reduce/control yeast. If you or your child can tolerate them, live culture fermented foods are a great way to regain the balance.¹⁸

The Body Ecology Diet has been helpful to many of my clients with autism, as well as for their family members. For practitioners, it's a great diet to use in your nutrition practice, and the principles of low sugar and probiotic-rich food can be helpful in most people's diets.



Body Ecology Diet

Low sugar: Avoids all sugars including fruit. Only sour fruit allowed at the beginning: Lemons, limes, black currants, cranberries. Future: Grapefruit, kiwi, and green apples.

Addition of fermented foods: Young coconut kefir, raw sauerkraut/cultured vegetables

Expansion/Contraction- macrobiotic principle of energetic properties. Contracting: meat, eggs, salt. Expanding: sugar.

Acid/Alkaline- 20% acid-forming foods: meat, grains, eggs, and 80% alkaline-forming : vegetables, raw apple cider vinegar

Grains: quinoa, amaranth, millet, buckwheat.

Food Combining – Theory that macronutrients need different conditions in stomach, especially for weak digestion.



Nightshades and Nightshade-Free Diet

The nightshade family is a group of fruits and vegetables. Tomatoes and white potatoes are two popular foods, but they are also nightshades. Nightshades are a known inflammatory food, as they contain alkaloids, which can act like a toxin.¹⁹ Many children with autism²⁰ or other neurological disorders and autoimmune conditions struggle to process these toxins through their detoxification pathway, and this results in inflammation, leaky gut, and neuropsychiatric disorders. Alkaloids (found in nightshades) aggravate gastrointestinal symptoms. If you suspect you or your child has a reaction to nightshades, try a short elimination diet and see if symptoms improve.

Nightshades

Tomato (and tomatillos)
Eggplant
White potato (not sweet)
Peppers – bell and hot peppers
Goji berries
Ashwaganda



Nightshades are found in tomatoes, peppers, eggplant, and white potatoes.

Nightshades

- Tomato (and tomatillos)
- Eggplant
- White potato (not sweet)
- Peppers – bell and hot peppers
- Goji berries
- Ashwagandha

Conclusion

Therapeutic diets are about removing the foods a person is intolerant to and adding nourishing foods to help them heal. But as you can see, even good nutritious healthy foods can be a problem for some people.

There is no one-size-fits-all diet. What is good for one person may hurt another.

Personalized nutrition is a new way to think about food and nutrition. It puts you in control and empowers you to truly understand which foods are meeting you or your child's unique needs to thrive.

Therapeutic dietary intervention is a process, often one layer is addressed at a time as you keep moving towards the foods that heal and nourish.

And for those who want to jumpstart their journey into personalized, BioIndividual Nutrition, I recommend my [program for individuals and parents of children with ADHD, autism, and anxiety](#). And if you are a practitioner, be sure to check out my [BioIndividual Nutrition® Training](#).

Keep nourishing hope,

Julie

References:

- 1) <https://www.tandfonline.com/doi/full/10.1080/07315724.2019.1685332>
- 2) <https://www.tandfonline.com/doi/abs/10.1080/13590840050000861>
- 3) <https://www.ncbi.nlm.nih.gov/m/pubmed/20696007/>
- 4) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604636/>
- 5) <https://www.ncbi.nlm.nih.gov/pubmed/10779289>
- 6) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4322780/>
- 7) https://journals.lww.com/jrnldb/Abstract/2006/04002/Frequency_of_Gastrointestinal_Symptoms_in_Children.11.aspx
- 8) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3174969/>
- 9) <https://www.ncbi.nlm.nih.gov/pubmed/24897165>
- 10) <https://www.biorxiv.org/content/10.1101/494187v1>
- 11) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5647120/>
- 12) <https://www.ncbi.nlm.nih.gov/pubmed/28808808>
- 13) <https://www.ncbi.nlm.nih.gov/pubmed/21911305>
- 14) <https://gut.bmj.com/content/66/7/1241>
- 15) <https://www.sciencedirect.com/science/article/abs/pii/S0016508513014078>
- 16) <https://www.ncbi.nlm.nih.gov/pubmed/8269884>
- 17) <https://link.springer.com/article/10.1007/s10620-017-4689-5>
- 18) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6306734/>
- 19) <https://www.ncbi.nlm.nih.gov/pubmed/18399356>
- 20) <https://www.sciencedirect.com/science/article/pii/S0306987799910460>

WANT TO LEARN MORE...

Whether you are an individual wanting to learn more for yourself or your child(ren) or a practitioner supporting clients/patients in their unique dietary needs, I have programs that can help!

Personalized Nutrition for Individuals & Parents



If you'd like to join me in my step-by-step **program for individuals** with a variety of chronic conditions, email me at: info@nourishinghope.com.

To learn about using diet and nutrition for your child (or an adult) with ADHD, autism, anxiety, or other neurological condition, join my **nutrition program for parents**, [Nourishing Hope for Healing Kids](#).

Visit NourishingHope.com

BioIndividual Nutrition Training for Health Practitioners



Professionals can explore my personalized nutrition training to use [BioIndividual Nutrition](#) in your practice to improve results.

Those specializing in children with autism and ADHD, visit my [Pediatric Program](#). Visit BioIndividualNutrition.com



ABOUT THE AUTHOR

I'm Julie Matthews, a Certified Nutrition Consultant and Published Researcher specializing in autism, ADHD, and related disorders for 20 years. I'm the author of *Nourishing Hope for Autism*. I teach parents and health practitioners around the world how to be effective at using personalized, BioIndividual Nutrition® and therapeutic diets and nutrition to help adults and children heal and improve their health.