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Julie presents her work at the Defeat Autism Now! (DAN!) and Autism One national conferences, teaches Traditional Healing Foods cooking classes, hosts a health oriented radio show in San Francisco and another on Autism One Radio and has a private nutrition practice in San Francisco where she consults with clients from around the world. Her website: www.NourishingHope.com contains free information, including links to videos of her presentations and interviews with experts.

Diet for Autism

Focus on Getting Healthy

Autism rates have been soaring worldwide and there is significant lack of viable and helpful treatment options coming from the mainstream. Fortunately, some have embraced the broader reality that autism is a whole body condition for which there is treatment.

Beyond the commonly noted social and behavioural inhibitions, children with autism have alarmingly similar physiological disturbances. It is common for children with autism to be ill with symptoms including: diarrhoea, constipation, sleep disturbances, infections, fatigue or hyperactivity, and skin rashes. These symptoms are signs of underlying physical problems—not ‘coincidence’ - and illustrate that autism is a whole body disorder. These physical symptoms are caused by biochemical imbalances that also affect the brain and behaviour. Addressing the root of their problems is paramount to aiding their potential.

Why Does Diet Help?

Diet and nutrition are key foundations for the health of children with autism. What children eat directly 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; and scientific knowledge of the ‘gut-brain connection’. The recent work of Dr MacFabe at the University of Western Ontario has illustrated this gut-brain connection with autism - 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 and substances we eat are in constant contact with the gut, and of significant influence on the body. Furthermore, food provides the requisite nutrients for healing and brain function.

The gut-brain connection is important. Certain foods, such as wheat and dairy, can contain proteins (gluten and casein) that trigger an ‘opiate effect’, as well as cause inflammation in the body. This opiate effect can directly influence the brain, resulting in symptoms similar to morphine - foggy thinking, inattentiveness, constipation and more. The inflammatory response can create digestive disturbances, pain throughout the body, and nutrient absorption issues. Other foods, when not tolerated, such as soy and corn can further exacerbate inflammation in the gut and cause food and microbial toxins to leak into the bloodstream—adding burden to an already taxed liver. Sugars can feed dysbiosis: an imbalance of good bacteria and pathogenic yeast and bacteria organisms. Candida is common in autism. For some, all grains and complex sugars fuel the growth of bad gut bugs and the residing inflammations and toxins that result. Inflammation is so important to understand and control because, as Jonathan Tommey explains in the Winter 2007 issue of *The Autism File*, these pro-inflammatory chemicals (cytokines): “can have dramatic affects on mood, psyche,

behaviour and brain function.”

What is Diet?

Diet is an intentional strategy regarding food intake. There are two main focuses of dietary intervention:

- Remove the bad stuff - foods that are inflammatory, damaging to the gut or feeding dysbiosis; and
- Add in foods for good nutrition - supplying needed nutrients and probiotics (good bacteria).

Diet is commonly misperceived as involving only restriction or elimination of foods, which is only half of the healing equation. Supplying the body with 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 the child.

Part One - Removing Offending Foods and Choosing an Autism Diet

Most ‘autism diets’ focus on the removal of ‘toxic foods’, foods that cannot be processed by the body, that lead to inflammation or feed bad ‘gut bugs’. For example, the popular gluten-free and casein-free (GFCF) diet eliminates the inflammatory proteins found in wheat and dairy foods. Other diets remove soy, corn, and other inflammatory foods. The Specific Carbohydrate Diet (SCD) similarly eliminates complex sugars and starches.

The easiest and most important initial action, no matter what diet you choose, is to remove artificial ingredients and junk food. Artificial ingredients are highly toxic and very difficult for the liver to breakdown - they are associated with hyperactivity, asthma, aggression, irritability, and sleep disturbances. Once you realise the deleterious nature of certain foods, you’ll naturally choose not to include them, or ‘eliminate’ them from your child’s diet.

FOOD ADDITIVES AND INGREDIENTS TO AVOID

- Artificial colours: red #40, yellow #5
- Artificial flavours: vanillin
- Preservatives: BHA, BHT
- Monosodium glutamate: MSG, hydrolysed vegetable protein, autolysed yeast, yeast extract
- Artificial sweeteners
- Trans fats



After more than ten years of diet experimentation by thousands of parents and practitioners, several diets have been identified as helpful for autism. This presents a great opportunity for nourishing hope for these children, but can create some confusion about where to start.

The most common and effective diets (see chart) include: GFCF, SCD, elimination and rotation diets, Gut and Psychology Syndrome (GAPS), Body Ecology Diet, Feingold Diet, Low Oxalate Diet and Weston A Price.

ASD DIET OPTIONS	BENEFITS
<p>GFCF (Gluten-free and Casein-free) No gluten (wheat, rye, barley, spelt, kamut and commercial oats) or casein (dairy)</p>	<p>A good diet to start with Reduces gut inflammation Reduces opiates</p>
<p>Food Sensitivity, Elimination / Rotation Eliminating or rotating all other food sensitivities: soy, corn, eggs, citrus, peanuts, chocolate, cane sugar ...</p>	<p>A follow up on GFCF to refine food sensitivities</p>
<p>Feingold Diet / Low Phenols Restricts high phenolic foods, including all artificial ingredients and high salicylate fruits such as apples, red grapes and berries</p>	<p>Good for food addictions: grapes, apples, artificial ingredients, hyperactivity, behaviour, irritability, red cheeks</p>
<p>SCD (Specific Carbohydrate Diet) / GAPS Restricts carbohydrates to only fruits, non-starchy vegetables and honey. No grains, starchy vegetables or mucilaginous fibre</p>	<p>Excellent for severe gut inflammation Very helpful for diarrhoea / constipation not addressed by GFCF Starves out dysbiotic flora</p>
<p>Body Ecology Diet Anti-yeast diet combining principles of anti-yeast diets including no sugar, acid/alkaline or fermented foods</p>	<p>Great for ridding candida and populating with good bacteria</p>
<p>Low Oxalate Diet Restricts high oxalate foods: nuts, beans, greens</p>	<p>A helpful refinement of the diet Reduces inflammatory / pain related compounds</p>
<p>Nourishing Traditions / Weston A Price Good quality fats; soaking and fermenting for digestion</p>	<p>A nourishing diet High quality fats, fermented foods, nutrient dense</p>

It's crucial that parents believe that it's possible for their child to change and improve. By envisioning the changes, we project a positive image that is important for the child and the success of your overall efforts.



For this article I will focus on the two most common and effective autism diets: GFCF and SCD.

Gluten-Free Casein-Free Diet (GFCF)

Parents typically begin dietary intervention with the GFCF diet. There's plenty of information about it and the marketplace is increasingly becoming GFCF friendly. This diet eliminates gluten, the protein found in wheat, rye, barley, spelt, kamut, commercial oats and casein: the protein found in dairy.

These proteins can be very inflammatory leading to digestive problems such as diarrhoea, constipation, gas, bloating, as well as foggy thinking and inattentiveness. Without these foods, systems can improve. One of the first things I commonly hear about GFCF (after digestion improves) is that children begin speaking or have a big burst in language after starting this diet.

Some of the foods containing the offending proteins are readily apparent. While following the GFCF diet, 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. Some sources however, can be 'sneaky', as they contain ingredients that people are often not aware of, including:

- Soy sauce (except gluten-free soy sauce)
- 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 don't include gluten or casein does not mean they are healthy. The sugar can feed yeast, imbalance blood sugar and disregulate energy. Such foods can play a transitional role when shifting diet; however, avoid over reliance on them.

The Specific Carbohydrate Diet (SCD)

SCD is a diet that removes all complex sugars: everything except honey and fruit sugar, including the removal of maple syrup, cane sugar, agave nectar, brown rice syrup and more. It also removes all starches; such as grains, potatoes, and sweet potatoes. It is not a 'low carb' diet but a 'specific carb' diet. This diet allows meat, fish, eggs, nuts, certain beans, all non-starchy vegetables, fruit and honey.

The Specific Carbohydrate Diet aims to reduce gut inflammation and aid healing by 'starving out' the bad gut bugs. Because it is more restrictive than GFCF, SCD is not usually the first diet parents do. However, if significant inflammatory gut conditions are present, some will go straight to SCD. There is no reason not to begin with SCD as it is a great diet for autism. But for parents that are new to diet, starting with the less restrictive GFCF diet makes sense. SCD is often applied when doing GFCF is not enough and digestive problems still remain or if someone wants to continue to evolve the diet to see any additional benefits. A variation of this diet is the GAPS diet created by Natasha Campbell-McBride, M.D. It includes the essentials of SCD, plus the addition of wonderful principles such as fermented foods and homemade broths.

You Can Do Diet

I know what you are thinking: "My child is picky and very inflexible with eating new foods. I'm never going to be able to get him to eat anything other than wheat

and dairy, and never mind anything 'healthy'."

I appreciate this concern. I have had some very picky eaters in my nutrition practice - many children ate only bread and dairy, others subsisted on just pancakes and fries. However, there are solid reasons why these children are so one-sided in their food choices, primarily craving. 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'. It's worth trying diet because once the child gets past the cravings (a few days to a few weeks), they often expand food choices dramatically and it becomes much easier to do.

I know that any child's diet can change. It may take time and require great patience, but you can succeed. I've never seen a child's diet that did not improve eventually - increasingly so as the body heals. It's crucial that parents believe that it's possible for their child to change and improve. By envisioning the changes, we project a positive image that is important for the child and the success of your overall efforts.

Part Two - Boosting Nutrition

Removing offending foods is an important step, however when applying an autism diet one should ensure complementary attention to boosting nutritional intake. It is advantageous and often necessary to introduce nutrient-dense and probiotic-rich foods to the diet in order to supply the body with the vitamins, minerals, fatty acids, amino acids and the good bacteria it needs. In order to promote healing, the body needs calcium and other nutrients, often in short supply with picky eaters and restrictive diets.

Children with autism have many known nutritional deficiencies such as vitamins B6 and B12, calcium, zinc, folic acid and many others. 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 with autism.



Here are a few ways to boost nutritional intake and provide the body the good bacteria the gut requires to be healthy.

Nutrition Boosters

VEGETABLES. Getting more vegetables into your child can be a challenging process. They need to become comfortable with the texture and bitter flavours. Encourage eating more vegetables by offering them at meals. It is 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 carbohydrate-rich foods but initially, any vegetables are good vegetables, as long as you are not adding more junk to make up for the vegetables.

JUICING. Juicing vegetables is a wonderful way to get concentrated nutrients without needing to chew. The nutrients are highly available as they are already extracted from the pulp and much of digestion. This is a great solution for children that like drinking more than eating.

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

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

(or in some cases on SCD, homemade dairy yogurt). They can add this nut milk to smoothies or recipes. Additionally, kefir, a common dairy ferment, can be made with young coconut juice instead of dairy. It is a fizzy, 'soda-like' beverage and can be mixed with fruit juice.

Raw sauerkraut is one of my favourites, and while many children won't eat store bought sauerkraut, you'd be surprised how many like 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 unpasteurised or make it yourself. It is great tossed in a salad. You can use sauerkraut juice as salad dressings as well, or you can blend a little in the food processor and add it to a warm (not hot) sauce. You only need a small bit of these powerful fermented foods several times a day for them to be very effective in aiding digestion and boost good bacteria levels.

BROTHS. Broths made from animal bones and vegetables are very rich in nutrients and available in absorbable forms. Broths contain natural gelatin that can aid digestion and healing. 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.

Diet – Focusing on what you can do

Many parents are taking matters into their own hands, acting upon their intuition, research, and community guidance to help their children. Parents consistently report that autism diets help. By avoiding offensive foods and boosting up nutrition, children with autism improve through the natural healing processes. While applying special autism diets can seem daunting, there is no more immediate impact that a parent can have than through what they feed their child. The scientific and practical evidence for concerted focus on diet is strong.

Avoid offending foods, and boost up nutrition step by step. It is advisable to seek support from a qualified and knowledgeable practitioner to ensure good nutrition with autism diets. It is also helpful to reach out to other parents that are doing diet to support you through the nuances and tips.

While applying an autism diet takes diligence and commitment, the potential rewards for children with autism are significant.

SNEAKING IN HEALTHY FOOD

Vegetables - Stage One. Puree mild vegetables such as butternut squash, cauliflower, or sweet potato after cooking. Add them to meatballs, pancakes, fruit smoothie or a sauce.

Vegetables - Stage Two. Mash cooked vegetables like broccoli with a fork or puree cooked leafy greens such as kale or nettles. Adding these to meatballs, sauce, or something else dark in colour works best.

Meat / protein. Add the best quality meat you can find - look for animals raised on pasture or 'grass fed'. For children that need more protein and don't like the texture, you can puree chicken and add it to virtually anything including muffins and tomato sauce.

Chicken pancakes are a wonderful way to serve chicken in a texture children often prefer. Use 1 boiled chicken breast and 3 eggs. Blend in a food processor. Pour into pan and cook like a pancake. They are pretty good actually, even with no flour.

Adding eggs to foods are another good way to get additional protein assuming the child is not sensitive or allergy to eggs. You can also add organic organ meats such as liver to meatballs to make them more nutritional.

