

# Food Choices

## Functional vs Dysfunctional

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### Sandy Durand, MSCAM, GC HlStcNutr, BBA, RA, ICFSM & devoted Mom of special needs adults

To the extent possible, these are my food goals in caregiving:

- ◆ Preventive measures before Band-Aids®
- ◆ Water first, and then unsweetened fluids before sweetened
- ◆ Vegetables before fruit, and whole fruit before juice
- ◆ Vegetables before meat
- ◆ Nutritious foods before empty calories
- ◆ Natural sweeteners/colors before artificial options
- ◆ Diet/lifestyle changes before drugs
- ◆ Baking/cooking before microwaving
- ◆ Whole/natural foods before processed options
- ◆ Organics before conventionally farmed foods



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# Eating the Rainbow

Functional

Dysfunctional



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### Common Special Needs Challenges

Symptom	Possible Causes
<b>Sleep Issues</b>	Impaired melatonin regulation, need for routine, dietary/environmental exposures
<b>Gastrointestinal Complaints</b>	Food allergies/sensitivities, reaction to drug and/or diet, toxic overload
<b>Anxiety</b>	Nutrient deficiencies, diet/environment
<b>Hyperactivity</b>	Dietary choices, toxic overload; problems with learning, movement, memory, language, sleep, and emotional response
<b>Seizures</b>	Sensitivity to smell. Nutrient deficiencies. Neurological issues. Prescription stimulants, antidepressants, & antipsychotics can worsen seizure activity and lower threshold while anticonvulsants may worsen behaviors/emotions

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### Autism Spectrum Disorder Hair Samples

Overload	Deficiency
▶ Vanadium	▶ Iron
▶ Antimony	▶ Magnesium
▶ Lead (Affects verbal communication)	▶ Molybdenum
▶ Mercury	▶ Iodine
▶ Arsenic	▶ Zinc
▶ Nickel	▶ Selenium
▶ Aluminum	▶ Manganese
▶ Cadmium	▶ Calcium
▶ Level of toxic overload correlates with severity of symptoms	▶ Chromium

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### Effects of Nutrient Deficiencies

<p>Magnesium is involved in more than 600 functions in humans.</p> <p>Deficiency = numbness, muscle cramps, personality change, seizures, coronary spasms</p> <hr style="width: 20%; margin: 10px auto;"/> <p>Manganese has antioxidant properties.</p> <p>Deficiency = diabetes, hearing loss, anemia, joint pain, bone deterioration, epileptic seizures, osteoporosis, poor wound healing, thyroid dysfunction, Parkinson's.</p>	<ul style="list-style-type: none"> <li>▶ Iron deficiency = increased absorption of aluminum, cadmium, and lead.</li> <li>▶ Molybdenum deficiency = poor detoxification, no support for asthma, eczema, insomnia, Lupus, Multiple Sclerosis, osteoporosis, HIV</li> <li>▶ Vitamin B6 deficiency = weak immunity, depression, anxiety, irritability, no support for heart disease or macular degeneration.</li> <li>▶ Vitamin C deficiency = joint pain, slow wound healing, no support for immunity or fending off heart disease or lung cancer.</li> <li>▶ Zinc deficiency = no support for taste/smell, brain function/memory/learning, or for clearing mercury and other toxins from body.</li> </ul>
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### Dysfunctional Ingredients

\*\* = neurotoxins

These common ingredients can cause or contribute to a wide array of health concerns, including:

- negative behaviors
  - hyperactivity
  - migraines
- diabetes/obesity
  - low IQ
- severe allergic reactions
  - anaphylactic shock



- ▶ High-fructose corn syrup (HFCS) (Source of mercury)
- ▶ Monosodium glutamate (MSG)\*\*
- ▶ Artificial colors
- ▶ Annatto, carmine & cochineal extract (Natural colorants)
- ▶ Artificial sweeteners\*\*
- ▶ Carrageenan (Thickening agent)
- ▶ Glyphosate (Herbicide)
- ▶ Organophosphates (Pesticide)

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### High-fructose Corn Syrup (HFCS)

HFCS depletes zinc, which in turn prevents zinc from removing aluminum, cadmium, mercury, and arsenic from the body.

A 2009 study of 55 popular major brand-name processed foods found that nearly one-third of them contained mercury. Those foods all listed HFCS as either the first or second ingredient.

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### Manufactured free Glutamate (MfG)

\*\* the toxic element of monosodium glutamate (MSG) \*\*

**These ingredients often contain or produce MfG during processing:**

- ◆Carrageenan ◆Bouillon, broth, stock
- ◆Any "flavors" or "flavoring"
- ◆Natural flavor ◆Maltodextrin
- ◆Oligodextrin ◆Citric acid, Citrate
- ◆Anything "ultra-pasteurized"
- ◆Barley malt ◆Malted barley
- ◆Brewer's yeast ◆Pectin
- ◆Malt extract ◆Seasonings

**These ingredients can be MfG-reaction triggers in HIGHLY SENSITIVE people:**

- ◆Corn starch ◆Corn syrup ◆Dextrose
- ◆Modified food starch ◆Rice syrup
- ◆Lipolyzed butter fat ◆Milk powder
- ◆Reduced fat milk ◆Brown rice syrup
- ◆"low fat" or "no fat" ◆Annatto ◆Vinegar
- ◆enriched, vitamin enriched, or pasteurized
- ◆certain amino acid chelates (Citrate, aspartate, and glutamate are used as chelating agents with mineral supplements.)

Copyright © 2020 Sandy Durand. All rights reserved \*\* Info source: [www.truthinlabeling.org/names.html](http://www.truthinlabeling.org/names.html)

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### Artificial Food Dyes

Americans consume more than 10,000,000 lbs annually in food, Red 40, Yellow 5, and Yellow 6 make up 90% of that number.

- ▶ FDA certification on food dyes does not indicate safety, but, rather, acceptable levels of lead, arsenic, mercury, and other contaminants.
- ▶ Artificial food dyes can push vulnerable individuals over the diagnostic threshold for ADHD.
- ▶ We consume five times more today than in 1955.

FDA-approved food dye	Possible effects
Red 3	May alter neurotransmitters
Red 40 Allura red	Hypersensitivity, hyperactivity
Yellow 5 (Tartrazine)	Hypersensitivity to life-threatening levels, sleep disturbance, lowered zinc levels, immune suppression, hyperactivity, anxiety, depression, oxidative damage, sensitivity correlates with aspirin intolerance
Yellow 6	Hypersensitivity, hyperactivity, lowered zinc levels
Blue 1	Potential for neurotoxicity, synergistic effect with L-glutamic acid to inhibit neuronal development

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### British vs American Food Dyes

<p><b>British</b></p> <ul style="list-style-type: none"> <li>▶ Orange soda uses carrot coloring.</li> <li>▶ Fast food strawberry sundae uses strawberry coloring.</li> <li>▶ Starburst and Skittles use natural food colorings.</li> </ul>	<p><b>American</b></p> <ul style="list-style-type: none"> <li>▶ Orange soda uses Yellow 6 and Red 40.</li> <li>▶ Fast food strawberry sundae uses Red 40.</li> <li>▶ Starburst and Skittles use artificial dyes.</li> </ul>
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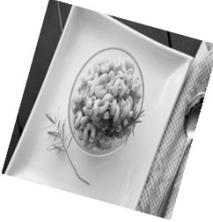
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### Problematic Natural Food Dyes

**Annatto** is a yellow/orange dye that is often used to color cheese-flavored items as well as many other foods.

Can cause hives, itching, GI complaints, headaches, irritability, breathing problems, cross-sensitivity with peanut/nut allergies.



**Carmine** is a red dye made from female aphids. In ancient times, it was used to dye cloth. Now we use it for food.

Can cause severe allergic reactions, asthmatic attacks, and anaphylactic shock.

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### Safer Natural Food Dyes

- ▶ Turmeric
- ▶ Red cabbage
- ▶ Paprika
- ▶ Grape
- ▶ Chlorophyll
- ▶ Elderberry
- ▶ Carrot
- ▶ Beet
- ▶ Purple corn



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### Artificial Sweeteners

- ▶ Aspartame has caused some 90 different reported symptoms including:
  - ▶ Nausea
  - ▶ Dizziness
  - ▶ Headaches/Migraines
  - ▶ Heart palpitations
  - ▶ Breathing problems
  - ▶ Anxiety
  - ▶ Seizures
  - ▶ Insomnia
- ▶ Sucralose and saccharine also are artificial sweeteners with similar symptoms reported.
- ▶ A large study of 250,000 people who drank artificially sweetened sodas reported a 31% increase in the likelihood of depression. *BBC News*, January 9, 2013



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### Natural Sweeteners – low/no cal

- ▶ Stevia can lower blood pressure in those with hypertension, but doesn't affect those with normal blood pressure. Stevia also may reduce blood sugar in those with diabetes, and may improve insulin sensitivity.
- ▶ Monk fruit may reduce inflammation and slow the growth of some cancers.
- ▶ Xylitol is a sugar alcohol that may reduce the risk of cavities and osteoporosis. Xylitol is toxic to dogs.
- ▶ Information sourced from <https://www.healthline.com/nutrition/healthy-natural-sweeteners#monkfruit>

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### Carrageenan

A thickener, emulsifier, and preservative made from red seaweed (used in animal studies to cause inflammation to test anti-inflammatory drugs)

- ▶ Animal studies indicate that carrageenan may cause/promote:
- ▶ Irritable bowel syndrome
- ▶ Glucose intolerance
- ▶ Inflammation
- ▶ Allergic reactions
- ▶ Bloating
- ▶ Suspected of promoting cancer
- ▶ Foods commonly containing carrageenan include:
- ▶ Dairy products (yogurt, cottage cheese, ice cream, etc.)
- ▶ Alternative milks (soy, almond, coconut, rice, hemp)
- ▶ Deli meats
- ▶ Baby formula (Limited use in Europe)

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Info Source: <https://www.healthline.com/health/food-nutrition/carrageenan#side-effects>

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### Glyphosate & Organophosphates

- ▶ A 2020 study links maternal glyphosate exposure to ASD-like cognitive and social interaction behaviors in mice offspring. Offspring also had altered microbiomes.
- ▶ Glyphosate has been found to have a negative effect on human gut bacteria.
- ▶ Prenatal exposure to organophosphates significantly lowered children's IQ by age seven.
- ▶ More than 33 million lbs of organophosphates (pesticides) were used in farm and home gardens in 2007.
- ▶ Pesticide residues are four times as high in conventionally farmed foods, along with significantly higher levels of the toxic element cadmium.

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### Now for the Good Stuff!

Here are some guidelines for getting your system back on track.

Diet	Lifestyle
▶ Consuming a little protein before bed can help people stay asleep.	▶ Get plenty of sleep.
▶ Respect your allergies & sensitivities. Eat/drink around them.	▶ Avoid screen time for 1-2 hours before bed.
▶ Start small with changes. Your palate will adjust in time.	▶ Get regular exercise.
	▶ Be kind to yourself.
	▶ Watch a funny movie.
	▶ Listen to inspiring/happy music.

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**SMASH Fish**

- ▶ These fish are great Omega-3 sources while being low in mercury.
- ▶ Opt for Alaskan wild salmon, if possible.
- ▶ Vegetarian sources include walnuts, chia seed, flaxseed, hempseed, egg yolks, and DHA algae oil.
- ▶ Omega-3s reduce hyperactivity and support brain health.

Salmon  
Mackerel  
Anchovy  
Sardine  
Herring



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**Beneficial Foods for Supporting Brain and Body Function**

SMASH fish	Dark chocolate
Leafy greens	Pumpkin seeds
Free-range eggs	Brown rice
Grass-fed beef	Fresh/frozen rainbow
Bone broth	Berries
Turmeric	Cruciferous (broc, etc.)
Tree nuts	Poultry



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**Reasons We Might Have Nutrient Deficiencies**

- Limited dietary options/choices
- Seizure meds, steroids, cholesterol-lowering drugs, weight loss meds, or other drugs
- Toxin overload or other factor preventing absorption
- Smoking or secondhand exposure
- Alcohol consumption
- Tube feeding
- Crohn's Disease, kidney disease, Celiac disease, inflammatory bowel disease, or similar health concern

-- Please --  
consult with your doctor before making dietary changes or adding supplements to your regimen.

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### Ways Correcting Deficiencies Can Help

Ask your doctor to test nutrient levels before supplementing.

- ▶ Magnesium/calcium/zinc combo decreases anxiety.
- ▶ Melatonin supplement improves sleep onset.
- ▶ Vitamin D supports antioxidants, reduces GI inflammation, and prevents seizures.
- ▶ B12 supports antioxidants.
- ▶ Selenium protects from mercury, cadmium, and lead, and helps people adapt to change/transitions.
- ▶ Iron and zinc decreased pica.
- ▶ B6 and magnesium improved behaviors.
- ▶ Vitamin C improved sensory and motor scores.
- ▶ Fish oil supports brain function, reduces anxiety, plays roles in digestion, allergies, mental disorders, brain development, and preventing cognitive decline.
- ▶ Zinc and iron decrease hyperactivity
- ▶ Zinc decreases food pickiness, improves behaviors and emotional responses.

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### Thank you so much for joining us today!



I hope you found the information helpful for your situation.

If you have questions/comments or would like to be notified of upcoming holistic lifestyle educational offerings, please email me at [holisticautismparenting@gmail.com](mailto:holisticautismparenting@gmail.com)

Please put "Circles of Life" in the subject line.

Have a lovely rest of your day! ☺

Sandy Durand, BBA, RA, MSCAM, GCert Holistic Nutrition, ICFSM, and parent of special needs adults

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