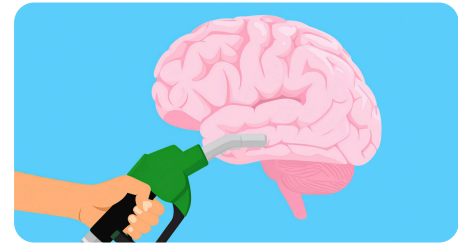


# THE IMPORTANCE OF NUTRITION



Feeding our bodies the right foods make us feel and do better. We all know this. The gut-brain connection is vital for everything from mood to focus and sensory regulation. When the gut is out of balance (as it is in many children with sensory issues), it sends signals to the brain that can affect how we process sensory information, regulate emotions, and even behave.



Think of food as the gas in the tank for the brain: when you put the right fuel in, the car (a.k.a. the brain) runs smoothly. But when you load it up with the wrong stuff, it's like trying to drive a car on low fuel or with dirty oil, everything starts to break down. Neuroinflammation, often caused by poor diet or imbalanced gut health, can make brain function sluggish and lead to sensory overload. So, if you want your child's brain to work at its best and be primed for plenty of neural connections, you need to give it the premium fuel.

## SUPPLEMENTS FOR SENSORY REGULATION: WHAT YOU NEED TO KNOW

Most kids with sensory issues don't eat a wide variety of foods. This is why supplementation is so important; we need to consider food first for overall wellness. When it comes to supplements, quality matters (we aren't talking about the ones shaped like cartoon characters). Here's what you need to consider for improving sensory regulation, emotional control, and overall brain function:

### OMEGA-3 FATTY ACIDS (FISH OIL)

**Why It's Important:** Omega-3s, especially DHA and EPA, are essential for brain health and neuroinflammation control. These fatty acids help reduce brain inflammation, support emotional regulation, and improve sensory processing.

**Quality Matters:** Choose high-quality, clean fish oil. Look for supplements that are third-party tested for purity and toxins to ensure your child gets the best quality possible.

**Consumption Tip:** If your child struggles with texture or taste, look for gummies or liquid forms of omega-3s to make it easier for them to consume.

### MAGNESIUM GLYCINATE

**Why It's Important:** Magnesium is a calming mineral that plays a significant role in neurotransmission. For kids with sensory issues, it can be game-changing.

**How It Works:** Magnesium helps balance the brain's excitatory signals. When the brain becomes overstimulated (think of that feeling when everything is just too much), magnesium helps calm the nervous system. It works by regulating glutamate, an excitatory neurotransmitter, so the brain doesn't get over-excited and overwhelmed.

**Neurotransmitter Support:** Magnesium also supports serotonin and dopamine synthesis—two brain chemicals crucial for mood regulation and focus. It helps regulate cortisol (the stress hormone), making it easier for kids to stay calm and grounded.

### PROBIOTICS

**Why It's Important:** We know a healthy gut microbiome is essential for both mental health and sensory regulation. Probiotics support the balance of good bacteria in the gut, which influences brain function and emotional stability.

**General Tip:** Choose a high-quality probiotic that includes a variety of strains, especially **Bifidobacterium** (breaks down sugars) and **Lactobacillus** (breaks down dairy), to support digestive health, reduce inflammation, and regulate mood.

## ZINC

**Why It's Important:** Zinc plays an essential role in brain function, you may have heard the phrase "No zinc, no think." Well, it's true. Zinc is vital for memory, focus, and cognitive performance.

**Taste and Smell:** Zinc also influences taste and smell, which is huge for kids with sensory issues, especially those who are picky eaters or have strong taste and odor sensitivities.

**How It Works:** Zinc supports neurotransmitter function, especially the NMDA receptor, which regulates brain activity. It also helps modulate calming properties by maintaining proper balance in the brain, especially when sensory overload is an issue.

## VITAMIN C

**Why It's Important:** Vitamin C is more than just an immunity booster. It also plays a role in lowering histamine levels in the body, which is important for kids with allergic reactions or sensory sensitivities to certain textures or foods.

**How It Works:** By reducing histamine levels, vitamin C helps the body calm down and stay regulated, which is crucial when your child's sensory system is already on high alert.

Besides controlling histamine, Vitamin C supports the nervous system's health, helps with the synthesis of neurotransmitters like serotonin and dopamine, and

reduces inflammation. This means it not only calms sensory sensitivities, but it also has a positive impact on mood regulation and overall emotional stability.

Vitamin C isn't just a flu-fighter; it's a calming ally for kids navigating the complexities of sensory processing. Consistency is key, and with the right support, your child can have days without the added hurdle of histamine overload.

If your child struggles with food textures or tastes, you can use liquid supplements or chewable vitamin C to ensure they're getting the benefits without the fuss.

## DIET CHANGES: GLUTEN-FREE AND CASEIN-FREE DIET

For some children with sensory issues, a **gluten-free** and **casein-free** diet can be crucial to their well-being. Both gluten (a protein found in wheat, barley, and rye) and casein (a protein in dairy) are known to cause inflammation in the body, which can (not surprisingly) exacerbate sensory processing challenges and emotional dysregulation. Everything is harder when our bodies don't feel well.

### Why It Works:

- **Neuroinflammation:** Both gluten and casein can contribute to inflammation in the gut and brain. This neuroinflammation can affect the brain's ability to regulate sensory input and manage emotions, leading to heightened irritability, anger, and difficulty focusing.
- **Gut-Brain Connection:** For children with sensitivities, the gut becomes a major player in how sensory information is processed. When the gut is inflamed, it disrupts neurotransmitter production and brain communication, further

## RESEARCH ON IRRITABILITY AND DAIRY INTOLERANCE:

Studies have shown that dairy intolerance can be linked to increased irritability and anger in children, particularly those on the autism spectrum. For example, intolerance to casein can lead to an immune response in the body that affects the central nervous system, triggering mood swings and irritable behavior. A 2015 study found that removing dairy from the diet led to significant improvements in behavior and mood regulation for some children with autism (Adams et al., 2015).

In our clinic, many parents report substantial changes in their children by cutting out gluten and casein. Parents often see behavioral improvements, including reduced meltdowns.

Adams, J. B., et al. (2015). **Nutritional interventions in autism spectrum disorders**. *Journal of Autism and Developmental Disorders*, 45(3), 710-719. <https://doi.org/10.1007/s10803-014-2226-x>



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