

GUT-BRAIN CONNECTION GUIDE

WHAT IT IS & TOP TIPS TO IMPROVE YOUR GUT HEALTH

GUT-BRAIN CONNECTION

The Basics

Ever felt “butterflies in your stomach or ”trusted your gut” about an important decision? You can thank your gut brain connection for that.

What is the Gut Brain Connection?

Your brain and gut talk to each other. Anytime you get a “gut feeling” or feel a knot in your stomach, you experience this firsthand. This two-way communication is known as the ‘gut brain connection.’ The network of nerves that sends these signals is referred to as the ‘gut-brain axis.’



THE GUT BRAIN CONNECTION & YOUR HEALTH

This crosstalk between your gut and brain affects many aspects of your health, including:

- Mood
- Immune function
- Hunger and satiety
- Digestion
- Gut motility
- Metabolism
- Food sensitivities & intolerances
- Stress levels
- Behavior
- Sensitivity to pain
- Cognitive function

The health of your gut affects your brain and vice versa. For example, people with gut dysbiosis often suffer from depression and anxiety, while people with good gut health are more likely to have a healthy nervous system.

On top of that, people with digestive disorders like inflammatory bowel disease (IBD), irritable bowel syndrome (IBS) face an increased risk of depression and anxiety.

GUT-BRAIN CONNECTION

Key players

The Enteric Nervous System

Your enteric nervous system (ENS) is nicknamed “your second brain.” This **neural network of roughly 500 million nerve cells line your digestive tract.** It’s part of your autonomic nervous system (ANS) that controls functions outside your conscious control (e.g. heart rate, digestion, blood pressure).

The Vagus Nerve

The vagus nerve connects your gut and brain and is the second largest nerve in your body. It acts like an information superhighway, sending signals in both directions. The vagus nerve is part of your parasympathetic nervous system, or your ‘rest and digest’ response. It curbs the stress response and helps you relax.

Gut Microbiome

Roughly 100 trillion microbes live in your gut. These microbes are known as your gut microbiome-- and they play a role in your gut brain connection too.

Your gut bacteria make neurotransmitters and other chemicals that affect your brain. In fact, 95% of the feel good neurotransmitter serotonin and 50% of dopamine is made by your gut bacteria!

They also make short chain fatty acids (SCFAs) like butyrate as a byproduct of digesting fiber. SCFAs have a slew of health benefits. They reduce inflammation, stabilize your blood sugar, and help maintain the integrity of the intestinal barrier to name a few.

EATING FOR GUT HEALTH

What to avoid

One simple way to harness the power of the gut brain connection is to watch what you put on your plate. By choosing foods that promote gut health and limiting ones that harm it, you can improve your mood, mental health, and overall well-being.



Below are some of the worst foods for gut health. To keep your gut happy, you'll want to limit or avoid them:

The Worst Foods for Gut Health

- **Refined sugar:** Cake, soda, and other sugary foods fuel bad bacteria and disrupt the balance of your gut microbiome. Sugar also increases intestinal permeability, setting the stage for a "leaky gut."
- **Alcohol:** Heavy drinking can damage the intestinal lining, create inflammation, and harm your gut microbiome.
- **Processed foods:** Packaged convenience foods like crackers, cookies, canned soups, microwave meals, lunch meats, and other processed foods contain artificial additives and preservatives that can hurt your gut.
- **Fried foods:** French fries, fried chicken, and other fried foods are high in saturated fat and difficult to for the body to digest.
- **Factory farmed meat:** Livestock on factory farms live in crowded conditions. Because of this, they're usually fed antibiotics to reduce the risk of disease. This can increase the risk of antibiotic resistant strains in the animals' gut microbiome. So it's best to go with grass fed or organic meat.
- **Artificial sweeteners:** Aspartame, saccharin, sucralose, and other artificial sweeteners can damage cells in the gut lining and allow bad bacteria to take over.
- **Gluten:** Wheat, barley, and other gluten-containing foods can cause inflammation for people with with Celiac disease or gluten sensitivity.

EATING FOR GUT HEALTH

What to Enjoy

Eating a healthy, balanced diet filled with wholesome, nutrient-dense foods will go a long way in keeping your gut happy.



Be sure to **include a diverse range of foods**. Research shows the more diverse your diet is, the more diverse your microbiome tends to be.

Here's why that matters. Microbiome diversity is the number of bacterial species that live in your gut. And generally, **a diverse microbiome = a healthy microbiome.**

With that in mind, here are some foods to add to the menu:

The Best Foods for Gut Health

- **High-fiber foods** like fruits, veggies, beans, legumes, & whole grains support gut motility and keep your bowels moving.
- **Fermented foods** like yogurt, kimchi, sauerkraut, miso, kefir, and kombucha are rich beneficial bacteria to repopulate your gut.
- **Prebiotic foods** like onions, garlic, asparagus, bananas, chicory, and leeks have special fibers that feed your friendly gut flora.
- **Polyphenol rich foods** like berries, cherries, plums, apples, dark chocolate, olives, hazelnuts, pecans, & flaxseed are shown to inhibit the growth of bacteria and support the growth of beneficial strains.
- **Omega-3 fatty acids** reduce inflammation and are linked with greater gut diversity. Omega-3 rich foods include fatty fish like salmon, sardines, and mackerel, as well as plant foods like chia seeds, walnuts, hemp seeds, and flaxseed.

HOW TO IMPROVE GUT HEALTH

Lifestyle Tips

Here are some lifestyle habits that support a healthy gut:



Chew your food

The more you chew your food, the better your digestion will be. Chewing your food well increases the production of salivary enzymes that help digest your food. Ideally, chew each bite until your food is the consistency of applesauce.



Exercise regularly

Exercise is one of the best things you can do for your gut. Research shows it enhances the number of friendly flora in the gut and increases microbiome diversity. Exercise also helps keep your bowels moving to prevent constipation. As if that wasn't enough, it also boosts your mood.



Reduce stress

Stress is bad news for your gut. It increases intestinal permeability and disrupts the gut microbiome. Mindfulness, meditation, yoga, and breathing exercises like box breathing and diaphragmatic breathing are a few simple ways to help you relax and destress.

HOW TO IMPROVE GUT HEALTH

Lifestyle tips continued...



Stay hydrated

Drinking plenty of water helps keep your bowels moving to prevent constipation. But it also helps your body break down food so you can absorb nutrients better. Water needs vary, but shooting for at least 2 liters a day is a good rule of thumb.



Get plenty of sleep

Research shows lack of sleep can negatively affect the gut microbiome in as little as two days. Not getting enough sleep also increases stress hormones like cortisol, which is linked with leaky gut. To keep your gut healthy, aim for 7-9 hours of sleep each night.



Vagus nerve exercises

You can improve your gut-brain axis by doing activities that stimulate your vagus nerve. Singing, humming, gargling are a few simple ways to do this. Yoga, cold showers, laughter, and massage are also said to build vagal tone.