

# Gut feelings: *the intimate relationship between your gut and brain*

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Butterflies in your tummy, trust your gut, pit in your stomach, tied up in knots — common sayings with big implications. These days, the relationship between our gut, brain, and emotions is becoming more widely understood. The gut and the brain are in a very codependent relationship, and as codependent relationships go, when both parties are “good” and stable, it is generally good, but when either party starts to struggle, it can be difficult for the other to remain resilient and healthy.

Our gut and brain are in constant communication via our nervous, endocrine, and immune systems. Collectively, these communication channels have been termed the gut-brain-axis (GBA). The gut has also been called “the second brain” or more scientifically, the enteric nervous system. The gut houses over 90 percent of your serotonin, a primary neurotransmitter that plays roles in depression and anxiety is produced by your gut! It is no surprise that conditions such as irritable bowel syndrome, Crohn’s disease, ulcerative colitis, and other gastrointestinal disorders share associations with depression and anxiety.

Let’s break down some of the major contributors to this intimate relationship:

- **The Superorganism:** There are 10 times more organisms in your gut than there are cells in your body. These organisms are collectively called our microbiome, and because of their power and sheer numbers, they are also known as the “superorganism.”

The profile of our microbiome is unique to us and can change daily. Essentially, we (and our superorganism) are waking up a different animal each day depending on the foods we eat, environmental exposures, stress, and medications among other factors that can impact our sensitive gut inhabitants. When our gut and microbiome get too shaken up, dysbiosis can occur, which in simple terms is an imbalance between the “good guys” and “bad guys” in our gut. In more severe cases, this discrepancy can become more problematic as in cases of small intestinal bacterial overgrowth (SIBO) and yeast/candida overgrowth. These conditions can cause a host of gastrointestinal symptoms, but also may elicit anxiety, depression, foggy thinking, fatigue, and cognitive changes.

- **Leaky gut:** When our gut is stressed, the sensitive mucosal layer that lines our intestines can become more porous causing an increase in intestinal permeability. Depression and anxiety have been shown to be associated with leaky gut. Our gut comprises 70 percent of our immune system. The gut is designed to flush out the

bad stuff, but when too stressed, toxins, food particles, and bad bugs can leak into our bloodstream and cause inflammation. This inflammation, otherwise known as endotoxemia, has been linked to multiple psychiatric and neurological conditions including depression, anxiety, schizophrenia, Parkinson’s, and Alzheimer’s disease.

- **The vagus nerve:** The vagus nerve plays a central role in relaying signals from our intestines to the brain stem, which in turn activates regions of the brain critical to emotion including the limbic system and hypothalamus. Conversely, emotional signals can also travel from the brain to the intestines also via the Vagus Nerve. Our Vagus Nerve is a primary control for our parasympathetic nervous system, the division of our nervous system responsible for resting, digesting, and healing. This counters the fight-or-flight response triggered by our sympathetic nervous system. Physical damage and chronic conditions such as alcoholism

and diabetes can impair the communication pathways between the gut and brain sometimes causing nausea, gastroparesis, diarrhea, and a decreased threshold for stress.

- **Nutrition:** Nutritional psychiatry has been more embraced over recent years, and it is long overdue. What you eat has major impacts on what happens to your gut, brain, and consequently, your mood. What we eat can strengthen the good guys or the bad guys in our gut. Studies have shown that diets rich in processed foods are associated with higher levels of pro-inflammatory strains of bacteria. Diets rich in whole and mostly plant-based foods are associated with a more diverse and anti-inflammatory microbiome. Pesticides, and notably glyphosate or known more commonly as “Round-Up” can also alter our fragile microbiomes. Glyphosate has been deemed a carcinogen and linked to autism, ADHD, depression, and Alzheimer’s disease.

## 10 ways to keep your gut and brain healthy

1. Eat real, whole foods, lots of plants, and organic whenever possible.
2. Minimize caffeine and alcohol.
3. Eat fermented foods (kefir, organic yogurt, kimchi, miso, tempeh, fermented veggies) and consider taking probiotics.
4. Minimize sugars & artificial sweeteners.
5. Reduce your stress!
6. Take antibiotics only when necessary. If necessary, increase probiotic intake.
7. Exercise.
8. Sleep. At least seven hours nightly.
9. Don’t smoke.
10. Assess your toxic load. Get rid of disinfectants and be careful what you put on your body.

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## She Soars Psychiatry

Audry Van Houweling is the owner and founder of She Soars Psychiatry, LLC. As a board-certified psychiatric nurse practitioner with additional certification in functional medicine and nutrition, Audry Van Houweling provides holistic mental-health solutions to adults and children.

Audry believes in approaching emotional wellness with a comprehensive lens that considers the roles of trauma, stress management, nutrition, movement, gut health, hormones, inflammation, immune function, and cellular function among others. At She Soars Psychiatry, with locations in Sisters and Silverton, Audry utilizes functional medicine, psychotherapy, and thoughtful medication management.

Above all, Audry’s mission at She Soars Psychiatry is to empower each client to move away from shame and stigma to a place of strength and hope. At She Soars Psychiatry, your story matters. When not in the office, Audry enjoys hiding out in the woods, riding her trusted horse, running through sagebrush with her pups, and adventuring with her husband, family, and friends.




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## Sisters Dental

Sisters Dental is now operating in an expansive new office at 491 E. Main Ave. in Sisters. The purpose-built new office is home to the merged practices of Dr. Trevor Frideres and Dr. Greg Everson.

The merger represents a win-win-win scenario for the dentists and their staff, and especially for patients. The most noticeable impact is greater availability and flexibility of schedules. Sisters Dental is open five days a week, Monday-Friday, with late appointments (6 p.m.) available on Mondays and early appointments (7 a.m.) on Friday.

The practices are now sharing equipment and advanced technology that allows for a broad range of capabilities and services available right here in Sisters.

Offering a full scope of general and cosmetic dentistry, with expertise ranging from porcelain veneers to dental implants, crowns and bridges, Dr. Frideres and Dr. Everson and the team at Sisters Dental are dedicated to delivering exceptional and personalized dental care for every one of their patients.

