

# The Gut-Brain Connection

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As coaches, we should be asking our clients about the health of their gut. That's because gut health is intimately related to the regulation of anxiety, mood, cognitive functioning, pain and even changes in brain function.

Until recently, much of the evidence for a gut-brain connection had been anecdotal: psychiatrists had noted that stress-related psychiatric symptoms, such as anxiety, were often accompanied by gastrointestinal disorders, such as irritable bowel syndrome (IBS) and irritable bowel disease (IBD).

After more than a decade of research into the gut-brain connect, much of it with animals, an article published in *Nature Reviews Neuroscience* in 2012 concluded, "Overall, it is becoming increasingly apparent that behavior, neurophysiology and neurochemistry can be affected in many ways through modulation of the gut microbiota."

And the recognition that gut health is intimately related to brain health has been accepted by the psychiatric community, as evidenced by a 2015 article in *Current Opinions in Psychiatry* that noted, "... given the ability of the gut microbiota to influence serotonin and its precursor, tryptophan, regulate the stress response and modulate cognition and behavior, the potential importance of the gut microbiota to psychiatry in general and to depression specifically is apparent."

If psychiatrists are asking their patients about their gut health, why aren't coaches asking their clients about the health of their gut?

Let's get into some of the current research about the gut-brain relationship. Although much of the research has used an animal model, human studies are emerging. Four recent human studies illustrate how gut health is intimately related to brain health, cognitive functioning, and psychological wellbeing.

Schmidt and colleagues (2015) found that participants who took prebiotics (non-digestible carbohydrates, like bananas or oatmeal, that stimulate the growth of healthy bacteria in the gut) for three weeks reduced their anxiety levels. They also decreased their risk of depression and the effects were similar to taking antidepressants or anti-anxiety drugs.

Messaoudi and colleagues (2011) found that participants who took probiotics for 30 days had lowered their risk of depression and increased their problem-solving skills.

Tillisch and colleagues (2013) were the first to demonstrate a direct relationship between gut bacteria and brain function. They found that, after eating yogurt daily for four weeks, the reactivity of the brain to negative emotional facial expressions had decreased.

Finally, Sánchez-Villegas and colleagues (2015) followed 15,093 people over 10 years and found that a Mediterranean-type diet with lots of fruits, vegetables, nuts and legumes reduced their risk of depression. Even small changes in diet had a protective effect.

Given the overwhelming evidence that gut health affects brain health, cognitive functioning and psychological well-being, coaches need to start asking their clients about their gut health. With

stress being endemic in our modern society, many clients will have gastrointestinal issues. If gut issues are not addressed, your client's progress or outcome will almost certainly be compromised.

An example from my own coaching practice is my client, Sarah. Sarah is a portfolio manager and it's obvious, on meeting her, that she's highly intelligent and accomplished. Sarah had been progressing steadily in her career until a few months ago when she started developing a new market for herself. She became paralyzed with fear, and her low self-esteem, which she had managed to keep at bay, surfaced. After several weeks of coaching with no movement forward and encouragement to clean up her diet (she's an emotional junk-food eater), she finally agreed to give up sugar and, almost immediately, noticed an increase in mental clarity and mood. When she went back to junk food, her "brain fog" returned and her self-esteem plummeted. Sarah yo-yos between clean eating and junk food and both of us have noticed that when she's eating clean, she has an abundant amount of mental energy and self esteem. When she reverts back to her junk-food diet, we might as well not have a coaching session.

When clients clean up their diets, even if the change is not as dramatic as it was for Sarah, their stress levels will likely decrease and their energy, mental focus, and mood increase. And with their higher energy levels and better mental focus and mood, coaching will be more effective and progress faster.

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Irena O'Brien, Ph.D., is a cognitive neuroscientist and brain-based meta-coach. She coaches business professionals to create flow in their business and personal lives. She enjoys reading about neuroscience and turning insights from neuroscience into actionable tools and strategies for her clients. She is a contributing author to the forthcoming book *Enabling Genius: A 21<sup>st</sup> Century Mindset* (LID Publishing). She is the founder and director of [The Neuroscience School](#), an online brain science program for coaches and professionals working in the health and wellness industries. You can reach her at [irena@irenaobrien.com](mailto:irena@irenaobrien.com).