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Exploring the Gut-Brain Connection

Learn How the Gut Is Closely Linked to Other Health Conditions

The gut plays a more critical role in our overall health and wellness than it may seem. While gut health is most commonly associated with digestive function and diseases like irritable bowel syndrome (IBS) and inflammatory bowel disease (IBD), it can also impact cognitive function, heart health, stress management and much more. This is all due to the trillions of microorganisms that make up our gut microbiome.

Poorly managed gut health can affect employee productivity, happiness and, ultimately, company costs—especially when it comes to healthcare.

To avoid costly consequences of ignoring employee gut health, employers and HR managers need to understand the full scope of how gut health and digestive diseases can impact many aspects of one's health and, in turn, the workplace.

What is the gut-brain connection?

- The gut-brain connection is a complex communication network that exists between the central nervous system (CNS) and the enteric nervous system (ENS) of the GI tract. This enables the gut and brain to send signals to each other, influencing various bodily processes, and the gut microbiome is an important part of this relationship.
- The ENS is a complex network of neurons that controls digestive processes independent of the CNS, which is why the gut is sometimes called the "second brain".¹
- GI issues can be linked to mental health conditions, mood and stress, cognitive function, neurodegenerative conditions and our health in general.

Because the gut and brain are interconnected, gut health impacts not just digestive conditions but also our general well-being.

Digestive Disease and Mental Health

How Are Digestive Diseases and Mental Health Related?

If left unmanaged, chronic GI issues can significantly impact our mental health and ability to deal with stress. In the workplace, these issues can translate to lower employee productivity, an increase in absences, and an overall negative work environment–all factors which can impact company revenue.

What Effect Does Stress Have on Digestive Disease Management?

Stress can alter the composition of bacteria in our gut microbiome. One study found that as our stress levels increase, specific health-promoting bacteria decreases, heightening a person's risk of infection or autoimmune disease⁴. Managing digestive issues and dealing with stigma in the workplace can increase stress, leading to symptom flare-ups.

How Are Digestive Diseases Impacted By Anxiety and Depression?

Anxiety and depression have been linked to gut health issues like IBS⁵ and IBD⁶. Stress associated with these conditions can trigger inflammation, which makes symptoms of many digestive diseases worse. Having anxiety or depression can also make it harder to keep up with healthy habits that are necessary for maintaining good gut health.

1 in 4 Americans

deal with a digestive disease²

About 90%

of the body's serotonin is estimated to be produced in the digestive tract³



The GI Tract and Cardiovascular Health

Scientists are increasingly finding that the gut microbiome may play a role in the development of heart disease. This connection is driven partly by a poor diet, which can contribute to problems with inflammation, metabolism, cholesterol and blood clot development.

Inflammation

Digestive diseases can increase levels of certain gut bacteria that trigger inflammation in the GI tract and throughout the body. This can damage blood vessels and increase the risk of cholesterol buildup in the arteries⁷.

Metabolism and Obesity Risk

Imbalances in the gut microbiome have been associated with an increased risk of obesity, type 2 diabetes and metabolic syndrome⁸—which includes other risk factors for heart disease like high blood pressure and high blood sugar.

Cholesterol

More research needs to be done in this area, but scientists are finding interesting connections between gut health and cholesterol levels. For example, a recent study suggests that certain bacteria found in the GI tract may help regulate cholesterol levels in our blood⁹.

Blood Clots

According to more recent studies, certain types of gut bacteria can increase the risk of developing blood clots.¹⁰ Decreasing your intake of foods high in saturated fat, such as egg yolks and red meat, may lower production of this type of bacteria.



Digestive Health and the Immune System

About **70-80%** of the body's immune cells are located in the GI tract¹¹, which means your overall gut health can impact your ability to fight off infection and deal with illnesses. Employees who struggle with digestive diseases may be more prone to getting sick, leading to increased time away from work and hefty organizational healthcare costs.

An imbalance in gut bacteria has been linked to several autoimmune diseases¹², including:

Celiac Disease¹³

A chronic inflammatory disease in which eating gluten triggers the body's immune response.

Rheumatoid Arthritis¹⁴

A chronic autoimmune disease involving joint pain and inflammation.

Type 1 Diabetes¹⁵

A chronic condition in which the pancreas does not produce insulin. Research suggests that gut microbiota plays a big part in autoimmunity of the pancreas, and could be a key factor in preventing type 1 diabetes.

Multiple Sclerosis¹⁶

A neuroinflammatory disease that causes the immune system to destroy the protective lining of nerves. The resulting nerve damage can inhibit communication between the brain and other parts of the body, including the gut.

Psoriasis¹⁷

A common chronic inflammatory condition that produces itchy patches of skin in response to triggers such as stress and infection. Poor gut health can lead to an increase in certain bacteria that can trigger psoriatic attacks.

How Employers Can Help

Due to the gut-brain connection, failure to manage even the most common digestive diseases can lead to additional health problems including poor mental health, increased risk for heart disease and lowered immunity to illness. In the workplace, all these issues may translate to low morale, decreased productivity and hidden healthcare costs.

This is why offering a comprehensive digestive health solution as part of your benefits package is so important. These solutions provide employees with critical education, support and tools to help them manage their conditions, making it easy for employers to keep employee digestive health in check and healthcare costs low.

<u>Vivante Health's GIThrive</u> solution gives members access to everything they need to manage their digestive health, all in one place. Whether it's connecting with the care team, tracking their nutrition and symptoms, or completing self-guided behavioral health modules, members are supported and encouraged every step of the way.

93% of GIThrive members reported improvements in their quality of life, with some experiencing a decrease in anxiety, stress, depression, and fatigue.

92% of members reported improvements in their symptoms, including bloating, constipation, gas, abdominal pain and diarrhea.

63%

With the help of the Vivante Health Care Team, 63% of members were able to identify their triggers to help with long term improvement of their gut health.

Results from our 2022 clinical impact survey.

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<u>**Click here**</u> to learn more about how GIThrive can help employers support employee digestive health and save money in the long run.

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