

Nutrition, why it's Important: Stress & Digestion

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In scientific terms, nutrition is the process of providing or obtaining food necessary for health and growth. Basically, we need to feed our bodies to keep them alive and healthy. Without nutrition we would become sick and weak, and our body would not have the ability to function and cope with daily life. As we age and move through life our nutritional needs change and it's important to listen to your body and make changes that will benefit your life. Having good nutrition can help with energy, mood, physical and mental health.

Of course, reading and thinking are important but, my God, food is important too. How fortunate we are to be food-consuming animals. Each meal should be a treat and one ought to bless every day which brings with it a good digestion and the precious gift of hunger - *Iris Murdoch*

Around 90% of people with ME/CFS/FM report experiencing IBS, food intolerance and gastric issues as part of their condition. We will explore what response stress has on our digestive system and what nutrition plan can best support our wellness journey.

The Digestive System

The digestive system is a group of organs working together to convert food into energy and basic nutrients to feed the entire body.

Possible ME/CFS/FM Symptoms

- Malabsorption
- Intolerance/allergies
- Indigestion
- Irritable bowel syndrome
- Diarrhoea and Constipation
- Nausea and vomiting
- Increased risk of gastritis and other gut issues such as ulcers and colitis.
- Bloating
- Hypoglycaemia
- Leaky gut, candida, parasites – alternative perspectives

The Response Stress has on our Digestive System

Stress has a negative impact on your digestive system. It's not just the big stressful events, like moving or losing your job, that can wreak havoc on your digestion, but the everyday stressors of life.

Life sustaining functions of our body are regulated through our autonomic system, this has two main divisions: The sympathetic nervous system, which triggers the fight or flight response and the parasympathetic nervous system, which calms the body after the danger (stressor) has passed. When the body is in a stressed state, energy is diverted away from the digestive system (seen as non-urgent), and towards the heart, muscles, legs and arms (for 'fight or flight'). There is a less effective breakdown and absorption of food, leading to bloating, flatulence, pain, irritable bowel syndrome etc.

The sympathetic and the parasympathetic nervous systems work with another component of the autonomic nervous system called the Enteric Nervous System; it is this system which helps to regulate digestion. The enteric nervous system is sometimes referred to as the second brain, because it relies on the same neurons and transmitters found in the central nervous system (brain and spinal cord). When we eat our stomach registers the food intake, the digestive tract neurons signal muscle cells of the intestines to propel food along further, breaking it down into nutrients and waste. At the same time the enteric nervous system sends neurotransmitters (serotonin) to communicate and interact with the central nervous system.

The "GUT- BRAIN AXIS" helps us to understand how the psychological stress and social stress might cause digestive problems.

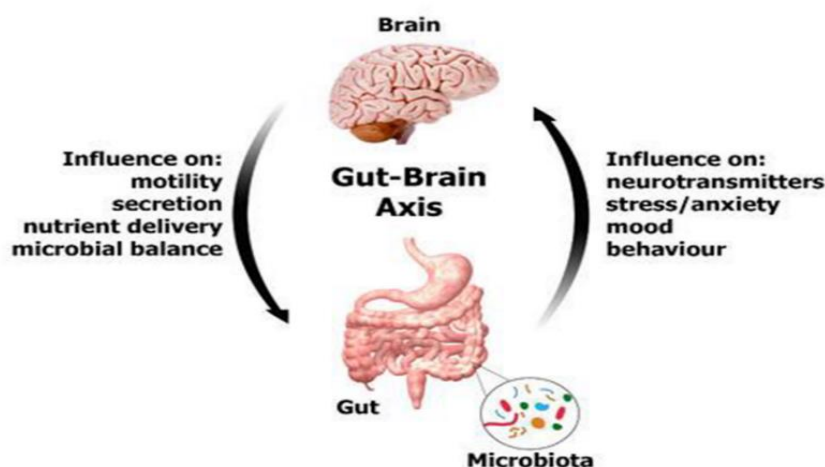
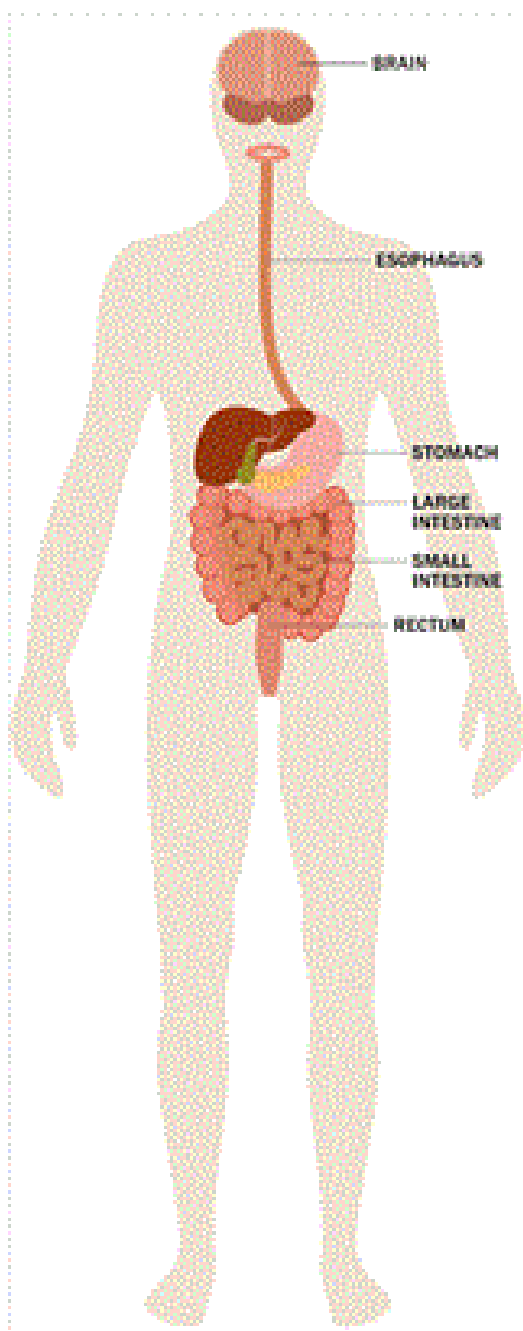


Image Source: <https://beyondaddiction.ca/2016/09/04/gut-brain-addiction/>

Let's Break this down Further

Gastrointestinal system - The gut has hundreds of millions of neurons, which can function independently and are in constant communication with the brain. Stress can affect this brain-gut communication, and may trigger pain, bloating, and other gut discomfort to be felt more easily. Stress can affect the bacteria in the gut which influences its health as well as the brain's health, which then impacts the ability to think clearly and starts to affect our emotions. Thus, the gut's nerves and bacteria strongly influence the brain and vice versa.



Oesophagus - When stressed, individuals may eat more or less than usual, increase the use of alcohol or tobacco, resulting in heartburn or acid reflux. Stress or exhaustion can also increase the severity of regularly occurring heartburn pain. Stress can make swallowing foods difficult or increase the amount of air that is swallowed, which increases burping, gassiness, and bloating.

Stomach - Stress can make pain, bloating, nausea, and other stomach discomforts felt more readily. Vomiting may occur if the stress is severe enough, the digestive system shuts down and food is ejected.

Bowel - Stress can make pain, bloating, or discomfort felt more easily in the bowels. It can affect how quickly food moves through the body, causing either diarrhoea or constipation. Stress can affect what nutrients the intestines absorb. The intestines have a barrier to protect the body from (most) food related bacteria. Stress can make this barrier weaker and allow gut bacteria to enter the body causing inflammatory responses.

Image Source: <https://psychologyofeating.com/4-ways-stress-impacts-digestion>

Stress Eating (Emotional Eating)

Stress can have the opposite effect on some people and cause them to eat more, this is often called emotional eating. When you are stressed the body sends out cortisol and insulin, this signals the need to fuel up, so the body has energy for fight or flight. This can result in cravings and overeating of salty and sugary foods for quick energy. Because the body is under stress blood flow to the stomach has slowed and digestion has reduced or even stopped, even though you are still eating. This can lead to stomach/bowel discomfort or your body storing the food as fat as it can't turn it to energy with digestion disrupted, and so the cycle continues. The best way off this cycle is to reduce your stress when you're eating to start or keep your digestion working properly.

How do we reduce our stress to allow our bodies to digest better?

To allow our bodies to digest more easily, we need to calm our sympathetic nervous system down and spend more time in parasympathetic dominance (rest and digest). Here are a few ways we can achieve this:

- **Diaphragmatic breathing:** Diaphragmatic breathing is a type of a breathing exercise that helps strengthen your diaphragm, an important muscle that helps you breathe. It can help lower your stress levels. Try this step by Step guide https://www.smallsteps.org.nz/app/deep-breathing?gclid=CjwKCAjwzOqKBhAWiEiwArQGwaJSZXgQzmKqakuA4hP1pJU8VxMLtrfxsxDv9qkDOOERDflu-ukcfbRoCXp8QAvD_BwE
- **Mindfulness/meditation:** Various techniques can help to reduce your stress, find the one that works best for you
- **Mindful Eating:** Mindful Eating 101 <https://www.healthline.com/nutrition/mindful-eating-guide>
- **CPDR** –Bringing awareness to our eating experience (awareness = being present). This is an amazing force for metabolism. CPDR- (the brain phase of digestion) – involves anticipation, aroma, visual stimulation, taste, pleasure, of the meal, and is responsible for 30 – 40% of the total digestive response to any meal
- Chewing food thoroughly will increase blood flow, oxygen, and digestive enzymes in the gut

Being in a relaxed stress-free state when eating allows our digestive system to do its job. Easier said than done I know. Hopefully by implementing some of these strategies we might be able to help ourselves reduce our stress so we can better digest our food.

Nutrition Plan to Best Support our Wellness

The best defence is a proactive one. Ensuring you are meeting your nutritional needs and keeping a healthy diet can go a long way to helping your digestive system. People with CFS/ME/FM may experience IBS or food intolerances creating stress on the digestive system, and as discussed above being stressed creates even more problems.

It is important to manage your own nutrition, as we know what works for one person may not work for another. Keeping a food diary can be an important start to discovering what food intolerance you suffer and give indication for what foods are causing you additional stress, as well as practicing some of the "rest and digest" strategies we touched on.

Here are a few guidelines around nutrition from Dr Rosamund Vallings book on CFS/ME that may help improve your nutrition.

12 Steps Towards Better Nutrition with CFS/ME – Dr Rosamund Vallings

1. Eat as varied a diet as you can, rotating foods to avoid excesses
2. Choose food that are as fresh and natural as possible
3. Do not over cook, as this may destroy important nutrients
4. Eat little, and often to avoid stomach overload (graze like a sheep)
5. Drink minimally with meals, and drink mainly between meals
6. Get medical checks for gastrointestinal symptoms, particularly if they started recently
7. Minimise your caffeine and alcohol intake
8. Take a good pinch of salt every 2-3 hours if you blood pressure is low, also increasing you fruit intake for potassium
9. Use vegetable or fish oils in cooking, but increase cholesterol intake if your blood level is very low
10. Supplements can be added your diet to help boost your good nutrition
11. Avoid diets that are very restrictive, as nutritional deficiencies can easily occur
12. Reject diets and supplements that are expensive and promise a cure

Supplements

Supplements are extras we take in addition to our diets and are generally used when we are deficient in something or can't get it from our diets. Vitamins and minerals are better absorbed from our diets. Not everyone needs to take supplements and its best to discuss with your health professional what would work best for you and get a blood test to find a deficiency. If you have IBS or food sensitivities, you should take it slow adding in supplements to ensure you don't encounter any problems, using alternative

Here are a few supplements that may help with CFS/ME/FM.

- **Pro and Pre-Biotics** – great for irritable bowel, also found in yoghurts
- **Magnesium** – important mineral for the body my help alleviate muscle pain and cramps
- **Omega 3 & 6** – May help for brain function
- **Vit D** – can be affected by lack of sunlight
- **Vit B12** – may help relieve some fatigue
- **CoQ10** - a mitochondrial nutrient which acts as an essential cofactor to produce ATP in mitochondria, a good antioxidant for energy support

Youtube Videos on Stress and Digestion

How does stress effect digestion. <https://www.youtube.com/watch?v=RYVcZ77IPQY>

Stress and Digestion <https://www.youtube.com/watch?v=foptV7iTPC4>

The metabolic Power of Awareness with Emily Rosen (Head phase of Digestion) CPDR. <https://www.youtube.com/watch?v=xLLNjLQJW4&t=4s>

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