

# Stress and Nutrition

Have you ever noticed that when you are stressed out you might reach for food to calm you down? This reaction is often a learned behavior and has probably affected everyone at some point in their lives. You may have grown up turning to food for reasons other than hunger, such as sadness, loneliness, anxiety, and/or stress.

Food can be comforting, especially those loaded with dopamine-releasing qualities often found in “junk” foods. That’s right, foods high in fat, sugar, and salt (or the combination) trigger the reward system of the brain to release “happy hormones,” temporarily making you feel better. That’s why you don’t reach for a stalk of celery or a crown of broccoli when you are stressed; you have learned that these foods just won’t cut it. Instead, you reach for the candy bar or those grease-covered salty chips. Sound familiar?

The poor food choices you make when you are stressed can also cause “stress” responses inside your body (oxidative cell damage/inflammation). Stress and the consumption of these foods also influence your gut bacteria profile (gut microbiome), which has a profound impact on your stress levels, health, disease prevention, and immunity. We have only scratched the surface when it comes to gut microbiota and its impact on our overall well-being, but the research is very promising to support our ability to manipulate our stress levels through the nourishment of our gut bacteria.

## **Foods That Can Help Reduce Stress**

Fortunately, changing the way we eat can increase our immunity and decrease our risk for stress-related diseases. Proper nutrition can also keep us fuller longer, cut our cravings, and make us feel better overall. Who wouldn’t want that?

Food contains powerful nutrients, phytochemicals, and antioxidants that can help to keep your body stress-free from the inside out. Eating foods rich in nutrients, antioxidants, phytonutrients, water, and fiber not only has the ability to decrease physiological stress, but it also helps to improve overall health through various mechanisms.



## **What Is Stress?**

Stress is described as a general response of the body to any harmful stimulus. As we know, stress has a biologic effect on our bodies that we have come to know as “fight or flight.” When a person’s stress triggers the fight-or-flight response, digestion slows or even stops so that the body can turn all energy to the perceived threat. With less severe or acute stress, the digestive process may slow or be temporarily disrupted, and may cause abdominal pain and other symptoms of functional gastrointestinal disorders. This relationship can also be reversed; as one can imagine, persistent gastrointestinal problems can heighten anxiety and stress.

Maladaptive stress responses negatively impact all nutrient interactions and have been associated with an array of functional gastrointestinal disorders, as well as affective disorders, autoimmune diseases, and hypertension. The relationship between environmental stress, psychological stress and GI distress is complex; not only can stress trigger and worsen gastrointestinal pain and other symptoms, but vice versa is also true.

Because of this complex relationship, many healthcare providers are beginning to treat stress issues using psychologic treatments/stress-relief techniques and treating stress/anxiety/depression by improving gut health. Research has found that people with increased anxiety/stress/depression have different gut bacteria profiles (gut microbiome). Fortunately, research supports that the gut microbiome can be improved through the consumption of prebiotics and probiotics, and that nourishing our good gut bacteria will also reduce anxiety and decrease stress.

## Foods Rich in Nutrients and Antioxidants

Foods shown to reduce cellular damage in the body include those rich in nutrients and antioxidants—often richly colored fruits and vegetables. Nutrient and antioxidant-rich foods include but are not limited to:

- **Dark green vegetables.**
- **Berries.**
- **Citrus fruits.**
- **Root vegetables (e.g., beets, sweet potatoes, carrots).**
- **Whole grains.**
- **Nuts and seeds.**
- **Green tea.**

Also found in **fruits, vegetables, whole grains, nuts, seeds, and tea** are **phytonutrients**—plant compounds that can help fight disease and keep your body functioning properly. Phytonutrients from various foods help to decrease oxidative stress inside the body, boost immunity, lower risk and growth of cancer, decrease inflammation, protect eyesight, prevent chronic disease, and lower risk for asthma among other things.

## Gut Health

As mentioned, new research on gut health has also demonstrated the power of a healthy gut microbiome for optimal well-being. Altering the gut microbiome through use of prebiotics and probiotics has proven to decrease stress and anxiety, improve mood, and improve GI functioning.

**Prebiotics** are compounds found in plants that cannot be digested by humans but can be digested by bacteria in your gut. In addition, these prebiotics feed the probiotics (good bacteria). Prebiotics are found in foods such as **asparagus, Jerusalem artichokes, bananas, whole grain oatmeal, and legumes (beans).**

**Probiotics** are found in **fermented foods and beverages** such as **yogurts with “live or active cultures,” sauerkraut, miso soup, soft cheeses (like Gouda), kimchi, kombucha, and even sourdough bread.**

In addition to stress, there are also items we consume that negatively impact the health of our gut bacteria, including prescription antibiotics, sugar, and certain medications. Avoiding the overconsumption of these items can help foster the growth of the good bacteria and reduce some of the more harmful bacteria, yeast, viruses, fungi, and parasites.

## The Power of Prevention

As you can see, stress and nutrition have a powerful bi-directional relationship. Not only does stress impact our internal health, it also impacts our food choices, increases our risk for sickness and disease, and decreases our overall well-being. Poor nutrition also increases stress inside our bodies, alters our gut microbiome, increases our risk for developing certain diseases, decreases our immunity, and negatively impacts our mental health. Through the use of both stress relief techniques and proper nutrition, we can help to prevent and combat many of the major health issues that are impacting our nation and world. So, remember: to help our bodies to optimally function, we need to include plenty of vegetables, fruits, legumes, nuts, seeds, and whole grains in our diet to provide us with essential vitamins and minerals along with prebiotics and probiotics.

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