

How Stress Can Make You Sick

With May being Mental Health Awareness Month, I wanted to share some information I learned about how stress affects one's body. You might be surprised, as I was, to learn that stress is more than just an emotion, it affects our physical health. Here is how.

In the short term, stress can be advantageous, but when activated too often or too long, your primitive fight or flight stress response not only changes your brain but also damages many of the other organs and cells throughout your body. Your adrenal gland releases the stress hormones cortisol, epinephrine (aka adrenaline), and norepinephrine. As these hormones travel through your bloodstream, they reach your blood vessels and heart. Adrenaline causes your heart to beat faster and raises your blood pressure, over time causing hypertension. Cortisol can cause the inner lining of blood vessels to not function normally. Scientists now know that this is an early step in triggering the process of cholesterol plaque build-up in your arteries. These changes increase your chances of a heart attack or stroke.

When your brain senses stress, it activates your autonomic nervous system. Through this network of nerve connections, your brain communicates stress to your intestinal nervous system. Besides causing butterflies in your stomach, this brain-gut connection can disturb the natural rhythmic contractions that move food through your gut, leading to irritable bowel syndrome, and can increase your gut sensitivity to acid, making you more likely to feel heartburn. Via the gut's nervous system, stress can also change the composition and function of your gut bacteria, which may affect your digestive and overall health.

Speaking of digestion, does chronic stress affect your waistline? Well, yes. Cortisol can increase your appetite. It tells your body to replenish your energy stores with energy-dense foods and carbs, causing you to crave comfort foods. High levels of cortisol can also cause you to put on those extra calories as visceral fat (aka deep belly fat). This type of fat doesn't just make it harder to button your pants. It is an organ that actively releases hormones and immune system chemicals that can increase your risk of developing chronic diseases, such as heart disease and insulin resistance.

Stress hormones also affect immune cells in a variety of ways. Initially, they help prepare to fight invaders and heal after injury, but chronic stress can dampen the function of some immune cells, make you more susceptible to infections, and slow the rate at which you heal.

As if all that weren't enough, chronic stress has even more ways it can sabotage your health, including acne, hair loss, sexual dysfunction, headaches, muscle tension, difficulty concentrating, fatigue, and irritability.

So, what does all this mean for you? Your life will always be filled with stressful situations. But what matters to your brain and entire body is how you respond to that stress. If you can view those situations as challenges you can master, rather than threats that are insurmountable, you will perform better in the short run and stay healthy in the long run.

For more information about how to handle stress and build resiliency, check out K-State's Stress and Resiliency Team here <https://www.ksre.k-state.edu/health/stress-management/index.html>

Source: Ted-Ed's How Stress Affects Your Body lesson, By Sharon Horesh Bergquist: <https://ed.ted.com/lessons/how-stress-affects-your-body-sharon-horesh-bergquist#watch>

NOTE: Although the terms are often used interchangeably, poor mental health and mental illness are not the same. A person can experience poor mental health and not be diagnosed with a mental illness. Likewise, a person diagnosed with a mental illness can experience periods of physical, mental, and social well-being.

Information compiled by Kaitlin Moore, Nutrition, Food Safety & Health Agent. Call her: 785-243-8185. Email her: kaitlinmoore@ksu.edu. Visit with her in person: Courthouse basement at 811 Washington St in Concordia, KS.

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

K-State Research and Extension is an equal opportunity provider and employer.