



The Infamous Stress

The word “stress” has been given many definitions over the years. In fact, it was not until Hans Selye studied it in the 30’s 40’s and 50’s that we started using the word in relation to mental and emotional distress. Until Selye, “stress” was a word used by engineers, mainly.

The classic definition of stress is “any real or imagined threat, and your body’s response to it”. Instances that are good or bad can cause a stress response in your body; it’s all about how you perceive the event AND the response your body has to it.

Some stress in life is unavoidable. Mild forms of stress can even be helpful in some situations. In fact, physical, mental and emotional stress that is well-received by your body brings growth.

Stress becomes a problem when:

- Your response to it is negative.
- Your feelings and emotions are inappropriate for the circumstances.
- Your response lasts an excessively long time.
- You’re feeling continuously overwhelmed, overpowered or overworked.

It’s important to realize that all your feelings create changes in your body. Your skin, heart rate, digestion, joints, muscle energy levels, the hair on your head, and countless cells and systems you don’t even know about change a bit with every emotion. This is one of the reasons I often counsel patients to eat at the table and with people they enjoy. I have found that many people eat under a state of stress and anxiety.

While experiencing stress, your heart rate goes up, your blood pressure rises, and blood is shunted away from your belly and organs (which is REALLY bad when you’re eating), this blood goes to your arms, legs, and head for quick thinking, the “fight or flight” response.

All of these changes are referred to as the physiological stress response.

Under extremely stressful circumstances, your digestion can completely shut down. A major problem with eating while your body is experiencing the stress response is that you could be eating the healthiest food in the world, yet you won’t be able to fully digest that food or utilize its nutrients and your body will not be able to burn calories effectively.



How the Stress Response Affects Your Digestion and Health

The stress response causes a number of unhealthy events in your body, including:

- Decreased nutrient absorption
- Decreased oxygenation to your gut
- As much as four times less blood flow to your digestive system, which leads to decreased metabolism
- Decreased enzyme output in your gut – as much as 20,000-fold! This will severely decrease the amount of nutrients pulled-out of the food you eat.

Many nutrients escape your body during stress, particularly:

- Water-soluble vitamins (The B vitamins, vitamin C, folic acid, biotin)
- Macrominerals (protein, carbohydrates, essential fatty acids)
- Microminerals (magnesium, sodium, boron etc...)
- Calcium (calcium excretion can increase as much as 60 to 75 mg within an hour of a stressful event)

As if that's not enough, the amount of cholesterol and triglycerides in your blood also increases and the good bacteria in you gut decreases. Your immune system becomes depressed and you're more likely to experience increased sensitivity to food and gastroesophageal reflux, or heartburn.

But perhaps most importantly, when your body is under the stress response, your cortisol and insulin levels rise. Excess cortisol can scramble the important messages from your deep brain to the rest of your body. This can really mess-up the rate and amount of certain important hormones like estrogen, testosterone, insulin, leptin, adrenaline and more! In the case of leptin and insulin, excess amounts can cause the cells that are supposed to receive their messages, ignore these messages. This phenomenon can lead to leptin and insulin resistance; leading to metabolic syndrome, obesity and possibly type II diabetes.

Cortisol and insulin especially, tend to track each other, and when your cortisol is consistently elevated under a chronic low-level stress response, you'll likely notice that you have difficulty losing weight or building muscle.

Additionally, if your cortisol is chronically elevated, you'll tend to gain weight around your midsection. We've known for some time that body fat, and especially visceral fat (the fat that gathers around your internal organs, around your midsection) is a major contributing factor to developing diabetes and metabolic syndrome.



In Summary:

When you are under chronic stress, your body starts to break down in many ways. You will also start to lose your sensitivity to certain hormones and possibly gain excess abdominal weight or come down with things like metabolic syndrome and/or type II diabetes.

When you eat under stress, your body is in the opposite state of where you need to be in order to digest your food, utilize its nutrients, and burn calories correctly.

Everyday Stress Relief

Finding ways to decrease your day-to-day stress is an important, if not essential, aspect of optimizing your health and wellness. All the great, nutritious organic food in the world can't help you if your body can't absorb and utilize the nutrients you put into it.

Stress is a serious factor in the illness of nearly all of the functional medicine and nutrition patients seen at my clinic. As I mentioned before, stress also plays a major role in your immune system, and can impact your:

- Blood pressure
- Cholesterol
- Brain chemistry (neurotransmitters)
- Blood sugar levels
- Hormone balance

You cannot entirely eliminate stress in your life; in fact, if you were, you'd miss out on the tremendous personal and physical growth that can come from appropriate amounts of stress. You can, however, work to provide your body with tools to compensate for any adverse stress that comes into play and causes a disruption in your body's important systems. There are many ways to do this, including:

- Exercise. Studies have shown that during exercise, tranquilizing chemicals (endorphins) are released in your brain. Exercise is a natural way to bring your body pleasurable relaxation and rejuvenation.
- Proper sleep
- Meditation (with or without the additional aid of brain wave synchronization technology)

Yours in Health,

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