

## “Fight or Flight” vs. “Rest and Digest”

Most people have heard of the “fight or flight” response of the nervous system, the way in which the body reacts to stress or danger. Many, however, have never heard of the “rest and digest” response. This system activates the more tranquil functions of the body; those that help maintain a healthy, long-term balance.

These systems are both part of a larger system named the autonomic nervous system, which controls and influences the way that our internal organs function. While we all think we have just one nervous system, we actually have several!

If you are suffering from adrenal fatigue, chances are that your “fight or flight” response has been activated far too often in the past. These kinds of stressors prompt the body to release large amounts of stress hormones like cortisol. Over the longer term, chronically elevated stress levels lead to your internal organs becoming depleted of the raw materials that they need to produce key hormones and neurotransmitters. This is what we call adrenal burnout or adrenal fatigue.

### The two parts of the Autonomic Nervous System

The **sympathetic nervous system**, or the “fight or flight” response, prepares our body for action. All of the organs involved in getting ready for a physical challenge (“fight”) or preparing for a retreat (“flight”) are activated through this system. The **parasympathetic nervous system** (“rest and digest”) helps produce a state of equilibrium in the body. Both are part of the greater Autonomic Nervous System, responsible for involuntary and reflexive functions in the body.

### The Sympathetic Nervous System

The sympathetic nervous system is faster-acting than the parasympathetic system, and moves along very short, fast neurons. The sympathetic nervous system activates a part of the adrenal gland named the adrenal medulla, which then releases hormones into the bloodstream. These hormones activate the target muscles and glands, causing the body to speed up and become tense, as well as more alert. Functions that are not immediately essential (like the immune system) are shut down to some degree.

Your body goes through a number of changes when the sympathetic nervous system is activated.

- *Your heart rate increases*
- *The bronchial tubes in your lungs dilate*
- *Your pupils dilate*
- *Your muscles contract*

- *Your saliva production is reduced*
- *Your stomach stops many of the functions of digestion*
- *More glycogen is converted to glucose*

As you can see, all of these changes are designed to make you more ready to fight or run. Non-essential systems like digestion and immunity are given much lower priority, while more energy is made available to your muscles and your heart rate increases. This is what happens when we are faced with a stressor that presents an imminent physical danger, but we actually see many of these changes in response to lower level stressors too.

### **The Parasympathetic Nervous System**

The parasympathetic, or “rest and digest” system is a much slower system that moves along longer pathways. The parasympathetic response is responsible for controlling homeostasis, or the balance and maintenance of the body’s systems. It restores the body to a state of calm and counterbalance, and allows it to relax and repair.

The body undergoes several specific responses when the parasympathetic system is activated.

- *Your saliva is increased*
- *Digestive enzymes are released*
- *Your heart rate drops*
- *The bronchial tubes in your lungs constrict*
- *Your muscles relax*
- *The pupils in your eyes constrict*
- *Your urinary output increases*

All of these changes are designed to maintain long-term health, improve digestion, conserve energy, and maintain a healthy balance in your body’s systems.

### **How are these systems activated?**

The sympathetic nervous system kicks in automatically, and occurs in response to any perceived threat. This doesn’t have to be an imminent physical threat (we face those very rarely these days). Any perceived threat or stressful situation can trigger this response. For example, if you have ever felt your heart racing and your mouth dry up ahead of a public speaking engagement, then you know what a sympathetic nervous response feels like. In this example, hormones released by the adrenal glands tell your heart to speed up, and restrict digestive processes like saliva production.

The sympathetic nervous system evolved to protect us from real physical dangers like dangerous animals or a threatening person. However, it can also be triggered by the ordinary stressors we face on a daily basis. These might be things like work deadlines, phones ringing and simply being pulled in too many directions.

Many diseases and illnesses have been shown to stem from chronic stress. Cardiovascular issues, high blood pressure, and immune system suppression are classic symptoms. Other symptoms include constipation and digestive issues, cold sores, jitteriness, sweats and anxiety. In the longer term, more advanced adrenal fatigue can lead to symptoms like chronically low energy levels, respiratory problems, decreased sexual function and much more.

Just as we can exercise some control over the sympathetic nervous system (just thinking of a public speaking engagement can trigger a response for many people), we can also activate the parasympathetic nervous system. Simply reading a book does the trick for some people, which may be why so many people read before going to bed for the night. Soaking in a hot bath, getting a massage, or petting a dog or cat are good relaxation strategies. Some people react well to deep breathing exercises or activities like yoga and tai chi.

### **Using these nervous systems to your benefit**

The less time we spend in the sympathetic response mode, the better. Although it makes us alert and better able to respond to the challenges ahead, it takes a huge toll on our bodies after a while and can lead to adrenal fatigue. Anything we can do to keep ourselves in the “rest and digest” mode as much as possible is worth the effort, since our long-term health may depend on it.

To activate your parasympathetic nervous system, learn what truly makes you feel relaxed. For some, this means engaging in a hobby, hanging out with friends, doing some light exercise, or even just getting out into nature. Others find that techniques like yoga, deep breathing, meditation or massage help. Whatever it is, pay close attention to your feelings and thoughts, and try to recreate that mental and emotional state whenever you are under stress.

We are all under some level of chronic stress these days. By learning to activate your parasympathetic nervous system, and reducing the effect of your sympathetic nervous system, you can reduce the stress on your heart, digestive system, immune system and more. This will not only make you a happier person, it will also help to avoid many of the diseases and conditions that are associated with chronic stress and adrenal fatigue. If you can become more conscious of the way that your body reacts to stress, it will pay enormous dividends in the future.