

# Stress Management Core Concepts

Hey, everybody. In this presentation, we're going to talk about core concepts for stress management. Stress management is one of the most important and yet most neglected steps we can take as clinicians to improve our patients' health. A great diet, good exercise plan, and solid supplement routine are not going to be that helpful if stress is a serious and unresolved or unaddressed issue. Many of my patients follow a really great diet, and even other aspects of their lifestyle are fairly dialed in, but they are still sick due to excessive, unmanaged stress.

Stress increases the risk for conditions such as heart disease, diabetes, hypothyroidism, and autoimmunity. It affects blood sugar control, promotes weight gain, increases inflammatory markers such as C-reactive protein, affects the onset and severity of asthma and allergies, impairs cognitive function and mental health, and triggers or worsens autoimmune diseases such as MS, Crohn's, psoriasis, and rheumatoid arthritis, and, in fact, this is just a partial list. Most, if not all, chronic diseases that we know of are associated with stress and either triggered or exacerbated by stress. I really have come to believe that this is the elephant in the room when it comes to treating chronic illness, and the more I do this work, the greater importance I ascribe to stress management in the treatment and management of chronic illness.

Of course, not all stress is bad. Stress helps us to adapt to our environment and overcome challenges. A fight-or-flight response prepares us by increasing our heart rate and respiration, mobilizing nutrients, activating the immune system, and heightening awareness. Resources are diverted from non-survival activities such as digestion and reproduction, and this allows us to survive in a dangerous natural environment.

Exercise is another good example of positive stress. When we lift weights, for example, you're tearing down muscle tissue, and the body will then rebuild larger muscles and increase the capacity of heart and lungs to meet a future physical challenge. This is when stress becomes an adaptive or positive response.

This kind of beneficial stress is called eustress, or more colloquially, positive stress. It motivates us. It focuses our energy and improves performance, and it enhances our ability to thrive in unique environments. It's typically short term and within the individual's coping abilities.

Harmful stress is called distress, or negative stress. This is unpleasant. It decreases our performance, and it can lead to mental, physical, and emotional problems. It can be either short or long term, but it is often more chronic in nature than eustress, or positive stress.

Human bodies constantly are working to keep critical physiological variables within a narrow range required for optimal health, things such as blood pressure, blood glucose, and hormones. This delicate and dynamic state of balance, as you know, is called homeostasis. The body can return to homeostasis quickly in typical circumstances if it is disturbed, but in distress, the body cannot

return to homeostasis because of the frequency or intensity of the stressor, for example, the death of a loved one, a divorce, financial or legal problems, chronic injury, illness, or a job loss. At that point, stress is no longer adaptive. It becomes harmful.

We also talked about the concept of resilience and metabolic reserve in the HPA axis unit, and over time, distress will deplete our metabolic reserve and diminish our resilience. It sort of reduces our buffer and lowers our stress tolerance.

Negative stress is caused by something important that exceeds our capacity to cope. How one experiences stress, of course, is subjective, and that's why we talked so much about perceived stress in the HPA axis unit. The same stressor can be perceived differently depending on the circumstances or meaning assigned to the stressor. This depends on both our own internal resources and our varying perspectives. Strengthening those resources and changing our perspective consciously can be a buffer against the effects of unavoidable stress.

## 4 Key Factors



Novelty of  
the event



Unpredictable  
nature of the event



Perceived threat to  
our body or ego



Sense of loss  
of control

There are four key factors that determine how we perceive stress, and again, we reviewed these in the HPA axis unit. They are the novelty of the event, the unpredictable nature of the event, the perceived threat to our body or ego, and the sense of loss of control. The acronym or mnemonic for this is NUTS.

Stress activates the hypothalamic-pituitary-adrenal axis. It causes the release of several different hormones from the adrenal glands, including cortisol and epinephrine, or adrenaline. The first stage of the stress response is the alarm reaction. This is where our heart rate, respiration, and blood pressure increase. Blood flow is shunted to the brain and muscles and diverted from the gut, kidneys, liver, and the skin. Our reproductive and immune functions are suppressed. Natural painkillers are released into the bloodstream. Stored fats and sugars are mobilized, and our awareness and sense of vision and hearing are increased.

Cortisol is responsible for many of these changes, but there are, of course, other hormones involved as well, such as epinephrine and norepinephrine. When cortisol is too high for too long, or if it's secreted outside the normal diurnal pattern, we can see a wide variety of health problems, including high blood sugar, depressed immunity, intestinal permeability, increased food cravings, poor cognitive function and memory, poor thyroid function, increased fat storage in the liver and abdomen, anxiety, and depression, just to name a few. Eventually, chronic stress will lead to a blunted cortisol response. That can sometimes happen in extreme acute stress as well, such as PTSD. HPA axis dysfunction becomes inexorably intertwined with the progression of most chronic conditions and must be addressed to ensure recovery from chronic illness.

Stress management has a number of benefits. It improves mood and energy. It boosts immune function, promotes longevity, increases productivity and focus, reduces the risk of chronic disease, helps maintain a healthy body weight, and much more.

In the next presentation, we'll discuss specific strategies for minimizing exposure to stress, as well as mitigating the harmful effects of unavoidable stress.

Okay, that's it for now. See you next time.