

Stress Hormones & Trauma

There are several things that happen to your body when you are exposed to stress. For each stressor within a stressful event, the body is hit with a “shot” of a chemical cocktail made up of various stress hormones. Think of it as every hill, drop, and inversion on a roller coaster, not just the ride itself. It can take our bodies anywhere from 12 to 30 hours to metabolize this cocktail. Each hormone leaves the body as its task is completed. Below are some of the ingredients of this cocktail and how they affect us.

CORTISOL

How it helps:

It shifts energy to important areas of the body for quick action in response to a threat. Also ensures the body’s fluids, salts, blood pressure, and other vital systems are maintained within a normal range.

With prolonged stress:

- High blood pressure
- Heart disease
- High blood sugar
- Risk for diabetes
- Slower wound healing
- Suppressed immune system
- Lower testosterone, low sperm count and erectile dysfunction in men
- Sleep disturbance
- Impairment in concentration, short-term memory and focus

EPINEPHRINE (ADRENALINE)

How it helps:

It strengthens and speeds the body with a powerful chemical boost when threatened while stimulating the body to overcome shock and other dangerous physical problems.

With prolonged stress:

- High blood pressure
- Bowel disorders such as irritable bowel syndrome (IBS)
- Weakened immune system
- Sleep disturbance
- Skin diseases such as psoriasis and other rashes
- Headaches, irritability, anxiety and shakiness
- Memory and learning impairment and accelerated aging

NOREPINEPHRINE (NORADRENALINE)

How it helps:

Similar to adrenaline PLUS it acts as a messenger to transmit signals in your sympathetic nervous system, your brain and other organs (neurotransmitter role).

With prolonged stress:

- Feeling “wired” or tense feeling
- High blood pressure
- Heart disease
- Risk for diabetes
- Nicotine, alcohol, and caffeine have a triggering effect to releasing a high level of this hormone

DOPAMINE

How it helps:

A hormone and a neurotransmitter, transferring messages from one nerve cell to another. It helps you perceive and process the threat in your environment and prioritize multiple threats.

With prolonged stress:

- Impaired memory
- Impaired learning and problem-solving
- Impaired focus and attention (“brain fog”)
- Depression
- Decreased motivation
- Drive for pleasure-seeking behaviors such as drugs and alcohol
- Risk taking behaviors
- Trigger the onset of schizophrenia and psychosis in some individuals

OTHER HORMONES

How they help:

Act as back up to help regulate or modify the brain’s stress response.

What are they?

- **Vasopressin:** increases reabsorption of water and raises blood pressure
- **Growth hormone:** Cell reproduction and promotes physical growth
- **Prolactin:** Regulates immune system
- **Serotonin:** Impacts mood, perceived abundance (safety) and scarcity (fear)
- **Acetylcholine:** Acts as a neurotransmitter for neuromuscular connections (nerve-to-skeletal muscles)
- **Peptides:** Modulates stress by decreasing sleep and increasing alertness