

THE CORTISOL CONNECTION: STRESS & SKIN HEALTH

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Stress is widely acknowledged as a link between healthy and unhealthy individuals. Additionally, numerous reports show stress to have a direct impact on the gut, brain, and immune system.¹ However, limited research is available concerning cortisol, a hormone produced in response to stress, and its effects on skin.

CORTISOL & STRESS

What allows stress to hijack cells and promote accelerated aging, acne, or certain health issues? To identify the problem, it is important to identify stress. Stress is described by the American Institute of Stress as a condition or feeling that is experienced when a person perceives that demands exceed the personal and social resources the individual can mobilize.² However, the brain perceives mental and physical stress in the same manner. Digestive disorders, illnesses, allergies, and emotional and mental anxieties are all stressors.

Other stressors include the following triggers:

1. Toxins (environment, foods, and medications)
2. Hormone imbalances (cortisol, testosterone, estrogen, melatonin, and insulin)
3. Inflammatory foods (sugar, gluten, dairy, and oils)
4. Individual food sensitivities (histamine produced reaction)

During periods of stress, the body follows a feedback loop, called the HPA axis (hypothalamus, pituitary, and adrenal glands). When the hypothalamus senses stress, it sends a message to the pituitary gland and then to the adrenal glands. The adrenocorticotrophic hormone (ACTH) in the pituitary gland triggers the release of cortisone and cortisol. The adrenal glands located just above the kidneys produce stress related hormones such as adrenaline, cortisone, and cortisol.

When produced, cortisol becomes the master hormone. The other hormones – insulin, testosterone, estrogen, and melatonin – must step aside until the threat



is resolved. For example, an accident that occurs on the highway causes all modes of transportation to be halted or slowed down until the accident is cleared. The body has the same response to the cortisol hormone.

Cortisol also signals adrenaline to increase blood flow, providing more oxygen to the muscles in case a person



must run or quickly react. Adrenaline is a quick response and is not used for a long period of time. Cortisol takes over for longer durations of stress.

THE CORTISOL CONNECTION

High-cortisol levels may be the hidden culprit to many health and skin problems. Cortisol increases blood sugar, resulting in accelerated aging, glycation, inflammation, and free radical damage. High blood sugar interrupts insulin balance and results in increased inflammation, fatigue, and joint and muscle pain.

During high-cortisol production, the body's internal organs fight a constant battle to balance hormones amidst lack of sleep, increased blood sugar, and inflammation. Ultimately, long-term wear and tear breaks down the body's ability to fight off intruders such as viruses, bacteria, or foreign invaders.

One common symptom is excessive weight gain around the midsection despite having daily exercise and a clean diet. One research study found that abdominal fat contributes to numerous biochemical stressors. Clinically, greater abdominal fat thickness is associated with oxidative stress and inflammation. The study concluded that visceral fat (fat around the organs) is a likely source of the chemicals that induce cellular aging.³

Acne present on the face, back, and chest may be contributed to increased cortisol levels that are offsetting the delicate microbiome in the gut and skin. The increase of lines and wrinkles on skin have a direct correlation to glycation, nutrient absorption, hydration, and cellular energy. The relationship to the gut and skin comes into play because of the inability to absorb nutrients.

CREATING SOLUTIONS

There are many ways to relieve excess cortisol in the body. The following are a few simple practices that can be implemented immediately:

1. Be honest about stress levels and define the problem. Find areas where unproductive stress can be eliminated. Ask whether a particular stress is helping or hindering. Many times, people will lose weight just by lowering their stress.
2. Find simple, practical ways to help relieve stress. One of the easiest, most effective and tested strategies is to take a 30- to 60-minute walk in nature. Take time to enjoy the day. Be intentional about day-to-day activities. Meditate, pray, or just sit still for a few minutes a day.
3. Pass these suggestions on to clients, so they can begin to see improved results with their skin. Educate them about the cortisol and skin connection.

Skin provides a direct line of communication to and depiction of the body's internal state of health. When treating clients with acne, accelerated aging, or glycation, provide education and solutions about stress and cortisol production. Skin care professionals are the first to observe and connect skin and health and may save someone's life just by highlighting the connection between cortisol and skin.



References

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