6 TIPS TO REDUCE THE STRESS HORMONE, CORTISOL

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Hearing all the reactions people have to coffee makes you wonder how can coffee have such a wide variety of effects on the body? After I began marketing Teeccino herbal coffee, our customers began telling me about their symptoms that were aggravated by coffee drinking. I began compiling a list that was astonishing in its range and diversity. I thought the reason coffee hadn't been targeted for its health consequences, unlike tobacco, was that its effects couldn't be specifically pinpointed like cancer of the lungs caused by smoking.

I was wrong. Stephen Cherniske in 1998 published his landmark book, Caffeine Blues, that attributed the effects of caffeine to its stimulation of the adrenal glands to produce cortisol, the body's foremost stress hormone. After the publication of Caffeine Blues, studies about cortisol, its relationship to caffeine, and the long term consequences of elevated cortisol to one's health proved Cherniske's theories to be absolutely correct.

The subsequent publication of The Cortisol Connection by Shawn Talbott, Ph.D. provides an even stronger picture of what happens in the body when you live awash in cortisol.

"Fight or Flight": The Body's Stress Response

Both Cherniske and Talbott explain that cortisol is a necessary stress hormone designed to help you wake up in the morning and in emergencies, to cope with danger. A spike in cortisol triggers the release of amino acids from the muscles, glucose from the liver, and fatty acids into the blood stream so the body can access a tremendous amount of energy.

Sadly, since we lack the inclination in modern life to react to this surge by physically burning it up in intense physical activity, the elevated hormones continue to stimulate the release of even more stress hormones. Due to our sedentary lifestyle, we are usually drinking that cup of coffee while sitting at a desk, a meal, or in our car. When caffeine triggers a cortisol jolt, our state of stress surges in a day already filled with stressful events.

Aging and Catabolic Metabolism

Elevated stress hormones puts the body in what both Cherniske and Talbott call a "catabolic" state. This is the destructive phase of cell life that includes widespread tissue destruction, muscle loss, bone loss, immune system depression and even brain shrinkage! As the body ages, cortisol production increases and coupled with low levels of DHEA, testosterone and estrogen, the loss of cartilage, bone and muscle tissue is accelerated.

Many people find they can't tolerate caffeine after they turn 40 like they used to when they were 20. At midlife, we first feel our aging bodies start to complain as DHEA production falls, cortisol rises, and suddenly, we no longer have the same energy or endurance we once took for granted.

Weight Gain, Heart Disease, and Diabetes

Chronic long-term exposure to stress hormones disrupts the body's metabolism causing elevated blood sugar, high cholesterol, high blood pressure, and increased body fat levels due to increased appetite. Stress stimulates cravings for sweet, calorie dense foods and salty, high carbohydrate

snacks. The combination of high cortisol, low DHEA and low growth hormone production causes the body to store fat, lose muscle and slow the metabolic rate. No wonder diets like The Fat Flush Plan and The Rosedale Diet tell you to get off of caffeine in order to lose weight!

Stress makes you burn fewer calories and cortisol can actually reduce the body's ability to release fat from its fat stores to use for energy. Instead, we become sugar burners and fat storers. Stress hormones cause increased body fat in the abdominal region, exactly where we don't need or want it.

Chronic stress can lead the body to ignore the function of insulin. Insulin resistance develops when the cells fail to respond to insulin's message to take in glucose from the blood stream. It is thought that elevated blood sugar due to stress and diet contributes to the development of insulin resistance.

When insulin fails to unlock our cells, the appetite is increased while the body's ability to burn fat is decreased. This syndrome is part of the modern problem of rising rates of obesity and diabetes.

Impaired immune system

Cortisol shrinks the thymus gland - one of the key immune regulators in the body — and inhibits white blood cell activity and production. It can actually signal immune-system cells to shut down and die. Prolonged exposure can cause the same immune system cells to attack the body's own tissue leading to autoimmune system diseases.

Initially the immune system may overreact causing allergies, asthma and various immune system disorders like rheumatoid arthritis, lupus, irritable bowel syndrome, Crohn's disease and fibromyalgia. Eventually, long-term exposure may lead to immune system suppression and far more serious diseases caused by the inactivation of our immune system protection.

Stress inhibits the production and activity of natural killer cells, known as NK cells, as much as 50%. NK cells are responsible for identifying and destroying cancer and virus cells. Even more scary, chronic stress can accelerate the growth of cancer cells in the body as well as block the body's ability to fight cancer. It promotes the synthesis of new blood cells in tumors and accelerates the growth of some tumors.

Gastrointestinal Problems

We are all familiar with the heartburn caused by the high acidity of coffee. Moreover, caffeine, by elevating cortisol, causes energy to be taken away from the gastrointestinal tract, lowers the production of enzymes needed to digest food, and reduces the absorption of minerals and nutrients. High acidity coupled with low mineral levels can lead to the development of osteoporosis.

Additionally, cortisol inhibits the growth of beneficial microflora in the intestines. These essential bacteria support the immune system, create B vitamins, and increase the absorption of minerals like calcium, iron, and magnesium. A decrease in their population results in more colds, sore throats, headaches, diarrhea, upset stomachs and the overgrowth of harmful bacteria and fungus like candida.

Mood Swings and Depression

Moodiness, anxiety, and depression are all consequences of elevated cortisol's long-term effects on seratonin and dopamine production. Although stress hormones cause a temporary increase in short term memory for up to 30 minutes, elevated cortisol reduces blood flow and glucose delivery to the brain and interferes with the brain cell's ability to uptake glucose. It can even cause brain cells to actually shrink!

Studies show that students who study late on caffeine, thus elevating cortisol levels, find their short-term memory fails them on the next day's exam.

Fatigue and Insomnia

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Cortisol production is naturally high in the early morning around 8 AM because one of its beneficial functions is to help you rise and shine for the day. People who chronically stress their adrenal glands to overproduce cortisol alter their cortisol concentrations so that cortisol is low in the morning when they wake up instead of high.

Of course if you wake up feeling sluggish, most people will reach for a cup of coffee to artificially spike their cortisol levels up again. If you drink coffee later in the day, elevated cortisol can interfere with the body's natural circadian rhythms. Coffee with meals can trigger cortisol surges that can cause overeating when blood sugar subsequently drops. High levels of cortisol can interfere with a good night's sleep because it can keep you from entering Stage 3 and 4 sleep; the deep, rebuild and repair sleep your body needs for recovery.

Skin Aging and Wrinkling

Last but hardly least, is our appearance. Caffeine dehydrates the body. So do elevated cortisol levels. This leads to dehydrated skin and premature wrinkling. Dr. Nicholas Perricone in his best selling books, The Perricone Prescription and The Wrinkle Cure, is emphatic about quitting coffee to prevent skin aging. His patients revealed to him the consequences of elevated cortisol levels on skin aging and wrinkling through both dehydration and the decrease of collagen and elastin production.

Six Tips To Lowering Your Cortisol Production:

Cherniske and Talbott both emphasize the importance of increasing our "anabolic" metabolism, the rebuild, repair and rejuvenate cycle of cell life, to reverse the consequences of elevated stress hormones and aging. Cherniske likens the anabolic/catabolic metabolic model to a seesaw. You want to have the anabolic side of the seesaw up in the air and the catabolic, or breakdown and degeneration, side down as low as it can go.

Here are 6 tips that give you their top recommendations to decrease cortisol levels and thus catabolic metabolism while you increase anabolic metabolism and experience optimal health.

1. Eliminate caffeine from your diet. It's the quickest way to reduce cortisol production and elevate the production of DHEA, the leading anabolic youth hormone. 200 mg of caffeine (one 12 oz mug of coffee) increases blood cortisol levels by 30% in one hour! Cortisol can remain elevated for up to 18 hours in the blood. This is the easiest step to decrease your catabolic metabolism and increase your anabolic metabolism.

2. Sleep deeper and longer. The average 50 year old has nighttime cortisol levels more than 30 times higher than the average 30 year old. Try taking melatonin, a natural hormone produced at night

that helps regulate sleep/wake cycles, before going to sleep to boost your own melatonin production that also decreases with age. You may not need it every night, but if you are waking up in the middle of the night or too early in the morning, melatonin can help you sleep deeper and lengthen your sleep cycle. If you get sleepy during the day even though you had plenty of rest, back off the melatonin for a while. It's a sign you are getting too much.

3. Exercise regularly to build muscle mass and increase brain output of serotonin and dopamine, brain chemicals that reduce anxiety and depression. Cherniske recommends taking DHEA supplements to shorten the adaptation period when out-of-shape muscles and cardiovascular system discourage people from continuing to exercise before they get in shape.
DHEA also accelerates the building of muscle mass and increases the feeling of being strong and energetic.

4. Keep your blood sugar stable. Avoid sugar in the diet and refined carbohydrates to keep from spiking your insulin production. Eat frequent small meals balanced in protein, complex carbohydrates and good fats like olive oil and flax seed oil. Diets rich in complex carbohydrates keep cortisol levels lower than low carbohydrate diets. Keep well hydrated — dehydration puts the body in stress and raises cortisol levels. Keep pure water by your bed and drink it when you first wake up and before you go to sleep.

5. Take anti-stress supplements like B vitamins, minerals like calcium, magnesium, chromium and zinc, and antioxidants like vitamin C, alpha lipoic acid, grapeseed extract, and Co Q 10. Adaptogen herbs like ginseng, astragalus, eleuthero, schizandra, Tulsi (holy basil) rhodiola and ashwagandha help the body cope with the side effects of stress and rebalance the metabolism. These supplement and herbs will not only lower cortisol levels but they will also help you decrease the effects of stress on the body by boosting the immune system.

6. Meditate or listen to relaxation tapes that promote the production of alpha (focused alertness) and theta (relaxed) brain waves. Avoid jolting alarm clocks that take you from delta waves (deep sleep) to beta waves (agitated and anxious) and stimulants like caffeine that promote beta waves while suppressing alpha and theta waves.