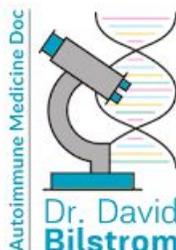


Fix Your Cortisol So Your Body Can Fix Itself

-DR. B

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Cortisol, the Stress Hormone

This is Dr. David Bilstrom, from the International Autoimmune Institute. This guide is about cortisol, the forgotten hormone. Now, why is it called the forgotten hormone? Well, everybody forgets about it.

Before we dive into how cortisol works in the body, take a look through this list of the many ways cortisol can positively and negatively impact your health. There is a statistical chance some of the issues listed apply to you. One of the last sections of this guide, discusses a simple test you can take to test your cortisol levels.

Functions of cortisol

- Balances blood sugar
- Weight control
- Immune system response
- Bone turnover rate
- Stress reaction
- Sleep
- Protein synthesis. Think other hormones, neurotransmitters (like serotonin/dopamine/GABA), enzymes (needed to turn one thing into another thing), and cell walls. So much of our body is protein-based.
- Mood and thoughts
- Influences testosterone/estrogen ratio
- Influences DHEA/insulin ratio
- Affects pituitary/thyroid/adrenal system
- Participates with the hormone aldosterone in sodium reabsorption in the kidneys
- Is an anti-inflammatory



What elevates cortisol?

- Stress
- Depression
- Toxin build up
- Overly aggressive exercise
- Vitamin deficiencies
- Too little sleep
- Gut dysfunction

What are the consequences of elevated cortisol?

- Decreased immune system
- Increased osteoporosis risk
- Fatigue
- Irritability
- Sugar cravings
- Shakiness between meals
- Confusion
- Memory is not as sharp
- Low energy
- Night sweats
- Binge eating
- Increased blood pressure
- Increased cholesterol
- Increased triglycerides
- Increased blood sugar
- Increased insulin and insulin resistance
- More frequent infections
- Thin skin

- Easy bruising
- Muscle weakness
- Weight gain around the middle
- Sleep disturbances
- Impaired liver conversion of the inactive thyroid hormone T4 into the more active/usable thyroid hormone T3

Abnormal cortisol levels are associated with...

- Menopause
- Chronic fatigue syndrome
- Fibromyalgia
- Depression
- Impotence
- Anorexia nervosa
- Insulin resistance/diabetes
- Generalized memory loss
- Irritable bowel syndrome
- Exacerbations of multiple sclerosis
- Panic attacks
- Premenstrual syndrome
- Infertility
- Osteoporosis
- Heart disease
- Rheumatoid arthritis
- Breast cancer
- Alzheimer's disease



What are the consequences when cortisol levels crash?

- Fatigue
- Low blood pressure
- Sensitivity to light
- Insomnia
- Digestive problems
- Emotional imbalances/lack of motivation
- Low blood sugar
- Decreased sexual interest
- Decreased immunity
- Lack of stamina
- Emotional paralysis
- Poor wound healing
- Alcoholism/drug addiction
- Allergies
- Unresponsive hypothyroidism (does not respond to thyroid medication treatment)
- Feeling of being overwhelmed
- Adrenal burnout. Hypoadrenalism.
- Hypocortisolism.
- Nutritional deficiencies
- Long-term stress
- Dysbiosis (too few good bacteria and too much bad bacteria in the gut)
- Chronic inflammation
- Chronic pain
- Build up of toxins in the body
- Low blood sugar
- Poor sleep hygiene
- Depression
- Severe allergies
- Both cortisol and DHEA levels decline

Oftentimes cortisol is the very first thing that gets thrown off, which then leads to chronic disease over the next months, years, decades. 🤒

There are two diseases that people think are the only diseases where cortisol is involved. One is Addison's and one is Cushing's. Cushing's is when the adrenal gland that makes cortisol makes excessive amounts of cortisol, huge amounts. Addison's is when the adrenal gland makes no cortisol. Unfortunately, most people think there's no in-between.

I tend to find that cortisol is always involved with chronic health issues. Including autoimmune disease.

What are a couple of symptoms that I tend to see that indicate cortisol is off?

Well, if anyone clenches their teeth or bites their fingernails or picks at their cuticles or holds their shoulders up all day, I know cortisol is off. I know they are stuck in the stress mode, cortisol being the stress hormone of course, and you know that the cortisol issue has to be corrected if you're going to turn any of these chronic health issues around.

Now cortisol is made by the adrenal glands that sit on top of the kidneys. Ideally, cortisol levels should start highest in the morning and then slowly go down and hit their low spot at bedtime. Then we fall fast asleep easily, nothing keeps us awake, we get this great restorative sleep. We wake up feeling great, we jump out of bed, and do it all over again. For many people, this is not their pattern and when it's not you know cortisol is off.



To the body, stress is stress 😲

To the body, stress is stress, it does not matter if it's physical stress, emotional stress, spiritual stress or biochemical stress. Whatever the stressors are, if you get too much of it, too often, too big, it's going to throw cortisol all off.

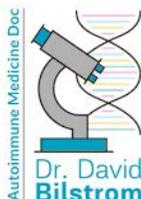
An example I might use is if you stub your toe, it may hurt like crazy but you know you're not going to have a bad toe for your whole life. You have such confidence that the body is going to heal itself and that the pain will go away after hopping around in pain for a couple of minutes. That was physical stress to your system and it temporarily threw cortisol up but then it came back and normalized.

How about emotional stress? Let's say you're driving in a really bad snowstorm, kind of white-knuckling it, you're not sure you're staying on the road or not. That's a big emotional stress. Cortisol goes up but then by the time you are safe and sound at home again, it goes back down again. The cortisol goes up and down, up and down, up and down, many times a day, and any kind of stress will do it.

The problem is you can get too much of this stuff, too big or too often and cortisol gets stuck in the “on position”. The fight-or-flight mode, the life or death mode, the “bear is chasing me trying to kill me” mode, 24 hours a day, seven days a week. When cortisol is stuck in this position, you can imagine your body's not going to like that at all.

When cortisol gets thrown off, some of the symptoms it tends to produce are classic. These include the muffin-top, collecting weight around the middle. Or, being tired all day long and then can't shut their brain off at night and go to sleep. Or, having big drops in energy in the afternoon around two or three o'clock.

Now a lot of times people may say to themselves “well, it's after lunch so it must be a blood sugar issue.” Cortisol is intimately connected with blood sugar control issues. So, it definitely could be partially a blood sugar dropping too low issue after you eat lunch. But, the reason it's dropping too low is because of the cortisol.

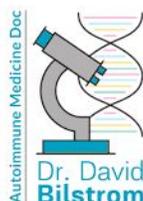


A classic sign of cortisol being thrown off are people that have chronically low blood pressure. 🤔

A classic sign of cortisol being thrown off are people that have chronically low blood pressure. Now if you're a Tour de France bike rider, and you have a blood pressure of 90 over 60, that's normal. But nobody else should have a 90 over 60, 80 over 50, and 95 over 65. That's going to be a chronic hypotension and that's going to be cortisol.

Whenever you see someone who can't fall asleep if they don't get to sleep by a certain time, you know cortisol is off. They tend to say "if I don't get to sleep by 10:30, I am up for hours." Or when you see someone that gets a "second wind" at midnight or one o'clock in the morning, that's always a cortisol issue. Not only do people get a "second wind" and can stay up really late but the only restorative sleep they tend to get is when the rest of the world is awake. The world says, "hey, it's five or six o'clock in the morning. It's time to get up and get going. We gotta get to school, we gotta get to work, we gotta get up and take care of the kids."

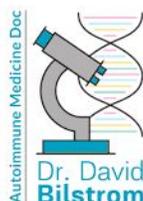
So here people are getting terrible non-restorative sleep all night long. This restorative sleep is what keeps us healthy and reverses chronic disease. But they get almost no good restorative sleep all night long. Then here comes five or six o'clock in the morning and they're just starting to get restorative sleep for the first time all night long. Maybe they can look forward to 3 or 4 hours of restorative sleep. But the world says "no, you've got to get up and get going." Thus, they don't get any restorative sleep. What you tend to see is if they are allowed to sleep late like on weekends, until 10:00 or 11:00 AM, they say "oh, that was the greatest sleep ever." They were finally allowed to get that restorative sleep that the rest of the world doesn't allow by forcing them to get up earlier than their body really wants.



When cortisol gets stuck in fight-or-flight mode, the body starts getting problem after problem. 🤕

When cortisol gets stuck in fight-or-flight mode, and we start getting problem after problem after problem, the body reacts intelligently. Because the body is so smart, it tries to compensate. DHEA (dehydroepiandrosterone), another hormone made by the adrenal glands, levels go way up to try to keep you going even though you don't feel your best. Well, you may have a lot of pain and you're fatigued and you feel weak and you got weight gain or menstrual stuff, you've got headaches, migraines, brain fog but you need to keep going. You need to get out of bed, you've gotta put your pants on, you got to take care of the kids, you got to go to work or school, you've got to do whatever you got to do.

DHEA goes way up to try to keep you going even though you don't feel your very best, far from your very best. DHEA, along with all the other hormones, are great anti-inflammatories. They keep away inflammation. DHEA, for example, is as powerful as the NSAIDs, the non-steroidal anti-inflammatory medications like Motrin and Advil, in keeping away joint pain. DHEA is great at keeping bones strong, brains healthy, keeps away heart attacks and strokes. It goes up to keep you going.



If you can't fix the cortisol and the DHEA is up too long, eventually, DHEA crashes. 🏥

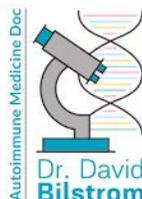
Now if you don't fix your cortisol and the DHEA is up too long, eventually, DHEA crashes. So I check DHEA levels on people. If their DHEA is high I may say, "oh good. Your body's still compensating, that will make it easier to fix all this stuff."

When you crash your DHEA, you will then start crashing your cortisol. That's not good. That's what happens to the person that's "running from the bear" 24 hours a day, seven days a week. They don't feel very good, they want to get better, they know they can feel better, they know they could feel worse. It's almost like the rug is pulled out right from underneath them, and down they crash. Now feeling even worse than before as their cortisol is crashing.

So rather than cortisol being too high, now it's too low. Rather than being in a state of hypercortisolism, they now have hypocortisolism which is even worse. All-day long low cortisol is a ticking time bomb for even worse things like heart attacks, strokes, cancer, and diabetes.

Low DHEA can be even worse than full-blown diabetes 😨

When the cortisol crashes you want to be able to identify it as soon as possible. You do not want to be there very long. It is a ticking time bomb for these even worse things. Or possibly a person may already be experiencing these issues. Part of this ticking time bomb is the DHEA crash. Low DHEA levels are more predictive of heart attack and stroke risk than even full-blown diabetes! And we know that full-blown diabetes is just



an absolute mess. But, being low in DHEA is even worse when it comes to preventing heart attacks and strokes.

Once cortisol gets stuck in the stress mode, people start getting health issues. One thing after another, after another, after another. Until a person finally says “oh my gosh. How could I get all these health problems all at the same time? It's not like I'm 150 years old here. What's the deal?”

Your body is so good at healing

Your body is so good at healing. I talked about physical stress such as when you stub your toe. It may hurt like crazy, you hop around in pain for a couple of minutes but you have such confidence that your body can fix this stuff and heal that toe, you're not thinking, bad toe my whole life. Sure enough, two minutes later, the pain has gone away and you just try not to kick that chair leg again with your sandals on.

Your mind can fix anything

Your mind can fix anything. Even the body's ability to heal. If you cut yourself, like a paper cut for example, you're not thinking that you will have an open wound your whole life. You probably are thinking that your body can fix it. Close it up over time. You may need a couple of bandages if it's big enough. But you know it's going to heal.

When cortisol gets thrown off though, your body can't fix problems well anymore. People start getting all kinds of health issues. One after another. Until eventually they may start to wonder how so many things can be going wrong at the same time. They may think, “body, what is going on? Why can't you fix this stuff? And your body says, “yes, you're right. I am here to fix any problem you got. Whatever you got, I can fix it. The problem is, we got this bear chasing us. This life-or-death thing going on right



behind us. It's a little more important than you being tired, or you're in pain, or you have brain fog, or bad menstrual cramps, or weight gain. Whatever you got, I can fix it. But you gotta get rid of this bear first."

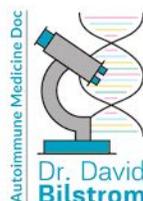
Thus, it is so important to address cortisol, the stress hormone issues, if you're ever going to let the body be in a position to fix everything. If you can reset this cortisol, bringing it back to where it should be, your body's going to be able to fix about anything. Cortisol's such a central mechanism when it comes to chronic health issues. This is why its correction is such a central mechanism in reversing and preventing chronic diseases of all kinds including autoimmune diseases.

Saliva testing of the cortisol is vitally important 🤔

As we talk about the tests that need to be run in order to find out exactly why a person has an autoimmune disease (or any chronic health issue), saliva testing of cortisol is vitally important. Saliva testing is the very first testing to be done for cortisol and is far superior to blood work. The saliva test that needs to be done consists of spitting four times in a day. 8:00 a.m, noon, 5:00, and 10:00.

Feel your best with a symphony of hormones 🎵💕

The thyroid is a very important hormone that is a vital component of the "symphony of hormones." In this hormone symphony, all the hormones should be well balanced. No one hormone is throwing anybody else off. Just like when a symphony is playing well



together, the music is so beautiful. When our hormones are all well balanced and doing well, we feel tremendously better.

Now, within this huge hormone symphony is a very important triad of insulin and blood sugar, thyroid, and cortisol. Just like any triangle in space, when you throw one angle off it's going to change the other two angles.

What often happens with excessive stress (if you can't tell already, excessive stress stinks), is the cortisol issue will throw off thyroid and insulin/blood sugar. So, when there's a lot of stress, cortisol will invariably throw off these other two very important hormones.

As you fix chronic stress and what's causing chronic stress, whether it is physical, emotional or spiritual, a person will get so much greater health benefits from the thyroid hormones their thyroid makes or from thyroid medications. You will also tend to fix insulin and blood sugar issues almost without even trying. When somebody has insulin resistance, pre-diabetes, or even early diabetes, they can typically reverse these insulin and blood sugar issues simply by correcting stress and the stress hormone cortisol.

How to Create a Solution?

Seeing a nurse practitioner or doctor who specializes in functional medicine is all you need to have your cortisol levels tested and treated. Make those lifestyle changes. Then your health tends to fall into place. Also music, Nature, pets, and meditation have been shown to improve cortisol levels.

