

Managing Stress

The Cortisol Connection

CORTISOL = the STRESS hormone

Cortisol is a hormone produced by your adrenal gland to respond to stress. Normal levels are needed for maintaining steady energy throughout the day. **Cortisol** also orchestrates the performance of other key hormones, like estrogen, testosterone and thyroid hormones.

However, chronic agitation triggers cortisol function to run amok, which contributes to insomnia, excess belly fat, anxiety and extreme fatigue, to name a few. Normally, **cortisol** follows a typical pattern throughout the day. In a healthy curve, cortisol is high in the morning and tapers off through the day and evening.

Ideally, **cortisol** is highest in the morning, helping us stay focused during the day. It gradually tapers off through the afternoon into the evening.

Dysfunctional Cortisol Patterns

HIGH EARLY-MORNING CORTISOL LEVELS

A healthy **cortisol** curve begins with **cortisol** levels highest in the morning but not hours before dawn. **Cortisol** levels are normally lowest around 3 am, then begin to rise, peaking around 8 am. If you routinely wake up hours before dawn in a state of anxiety, your cortisol is overachieving and spiking too early. This could be happening if:

- You rarely sleep through the night
- Your mind is racing
- You're edgy and confrontational in the mornings
- Your energy crashes and burns sometime around mid-morning

HIGH CORTISOL LEVELS THROUGHOUT THE DAY

Cortisol spikes in response to stressors like work deadlines, environmental pollution, and inadequate sleep. Ongoing high levels of cortisol can be caused by too much coffee, a lack of carbs throughout the day, or intensive focus on schedules. If cortisol levels stay elevated, you're wired but your adrenals are getting tired. It feels like:

- You're constantly behind schedule and racing to catch up
- You're exhausted and hyper at the same time
- People comment on how fast you talk
- You're easily irritated and feel little enthusiasm for anything

HIGH EVENING CORTISOL LEVELS

If you often find yourself in heated political arguments online at 9 pm, or if you do heavy training at the gym in the evenings, it's likely that your cortisol levels are skyrocketing at night -- right when you want them to be coming down. Some common indications of high evening **cortisol** levels are:

- Falling asleep is nearly impossible and can take hours.
- You worry in the evenings or feel especially argumentative.
- You distract yourself by spending a lot of time online, watching TV, or working out at night -- which can lead to a self-defeating cycle of even higher evening cortisol.

LOW CORTISOL LEVELS THROUGHOUT THE DAY

After **cortisol** has been elevated for an extended period, it can drop off completely. When it does, you feel flat-lined. This usually signals adrenal exhaustion, when the overworked glands have shut down. Causes include prolonged and intense stress, sustained periods of inadequate sleep, and a general lack of physical and mental rest. Some indications of low **cortisol**:

You're dragging through each day, even after plenty sleep

It takes high-octane coffee or intense exercise to pull you up -- but it doesn't last

You fall asleep everywhere, including work meetings

How to Get Control Back of Your Cortisol Curve

Cycle Carbs

A low-carb diet is great for losing weight, but it is not ideal if you have disrupted cortisol. High carb meals drop the **cortisol** whereas lower-carb meals allow the cortisol to stay higher.

To reset your **cortisol**, eat a low-carb breakfast, moderate amounts of healthy carbs in the afternoon, and higher amounts of healthy carbs (not bread or pasta) in the evening. But avoiding carbs altogether can cause **cortisol** to stay elevated when you want it to come down. Punt your healthy carbs to later in the day.

Supplement Your Nutrition

There is no single supplement that can reset your **cortisol**, but there are 3 nutrients that play an essential role:

Omega 3 fatty acids (3,000 mg daily)

Vitamin C (1,000 mg daily)

Vitamin B₅ (part of a B-complex)

These three supplements have been shown to lower **cortisol** levels and can be used as a low-risk treatment for chronic stress.

Stay Hydrated

We are more likely to become dehydrated under stress and not only because we might neglect drinking water. Feeling anxious raises our heart rate and triggers faster, heavier breathing, both of which lead to fluid loss. Even if you are drinking plenty of water, you can still get dehydrated when you are stressed. The water may not be getting into your cells and may be just going right through you.

Just Relax

Your adrenals don't care if stress is mental or physical. Their job is to protect you when you are endangered. They will pump out **cortisol** whenever you are agitated and threatened—at least until they burn out! But when you learn to calm the mind and regain a sense of control, the sympathetic nervous system stays quiet.

Finding a “spiritual practice” will be an antidote to a constant state of alarm. Find a practice that makes you feel connected and centered. It could be praying, doing yoga, walking through the woods, or taking five minutes to quietly listen to the sounds around you. Relaxation practices are beneficial any time of day, regardless of your **cortisol** pattern, but they are especially helpful in the evenings to promote better sleep.

Time Your Workouts

We have been taught that *intense exercise* is a great way to de-stress. However, intense exercise raises **cortisol** levels, which is great if you are looking for an extra energy boost in the morning or midafternoon. But an evening or nighttime workout may not be beneficial if it's prompting insomnia or anxiety.

This does NOT mean you have to ditch your evening workout if that's the only time you have. But recognize that a schedule shift could help you reset your **cortisol**. Try changing that evening spin class to a yoga class or other meditative practice.

Get Some Sleep

Rest is key to restoring a healthy **cortisol** curve. Even when you still have a lot to get done or you are not sleepy and it's your only time to catch up on email, etc., just got to bed anyway. Sleep is crucial when it comes to cortisol. Going from hours eight of sleep to only 6 will cause big disruptions in **cortisol** patterns in less than two weeks.

By eating healthy carbs with dinner, practicing a little relaxation and adding some healthy supplements, you will find falling into a deep, restorative sleep is much easier. Sleep is an indicator of whether your efforts to reset your **cortisol** patterns are working.

Cortisol and melatonin—the hormone that regulates sleep and wake cycles—work in tandem. When **cortisol** drops, melatonin takes over and makes you sleepy. When you are asleep, relatively low levels of **cortisol** allow your cells to repair and heal. If **cortisol** levels stay elevated, your body can't make those repairs and you wake up feeling fatigued.

Cortisol and the Perimenopause

Even the most durable, regulated **cortisol** curve can go a little haywire during perimenopause and menopause mainly because the adrenal glands take over estrogen production. So how do you get every back in order? The answer is anti-stress measures. A combination of a whole-foods diet, meditation, deep breathing and try green tea (rather than coffee). And 'cize matters. That's exercise! Cardiovascular exercise increases cortisol and meditative practices decrease cortisol.

Caffeine and Cortisol

There's a reason we reach for an espresso when we want energy—caffeine inhibits cortisol reduction. It's not that coffee raises **cortisol**, rather the caffeine makes it harder for the body to lower cortisol levels. Your morning coffee is not going to increase your cortisol (any higher than they already are) but your evening cup may delay the downward curve your body needs to get adequate sleep. And some people are more sensitive to caffeine than others.

Some studies have shown that caffeine increases performance and energy but usually in those who do NOT drink caffeine regularly. If you drink coffee regularly, the perception of an energy lift usually comes from the disappearance of caffeine withdrawal symptoms like grogginess and headaches. So just have coffee a few times per week rather than daily and drink it in the morning. This way, your cortisol curve won't be affected and you will get the best benefits from caffeine. Make it a pleasure rather than a crutch.