

## Adrenal Testing Might be Right for You

The adrenal glands are tiny, generally about 3 inches long by ½ inch high. They are responsible for keeping you going during stress, the “fight or flight” mode. Their main function is to maintain blood sugar and blood salt levels and to produce adrenaline to stimulate metabolism, burn fat for energy, and increase blood circulation and respiration.

Because they are so small, there is a limit to how hard you can make them work under stress before they become exhausted. Over-used, worn out and exhausted adrenal glands simply cannot generate enough energy to keep you going.

The adrenal glands secrete important hormones -- adrenaline, aldosterone and cortisol. Adrenaline is produced by the adrenals, especially during periods of exercise and stress, to increase the rate of blood circulation, breathing, and fat metabolism for energy. It prepares your muscles, giving them the energy from fat for exertion in a “fight or flight” mode.

Cortisol has a different function. Its main function is to control blood sugar levels, and it also regulates metabolism and reduces inflammation. Cortisol increases blood sugar rapidly for quick muscle energy. Long-term secretion of cortisol due to long-term stress increases blood sugars long term, and this stimulates fat storage. Aldosterone helps to control blood pressure by regulating salt and water balance; it holds onto salt and can affect water retention.

Chronically low energy, severe menstrual symptoms, muscle weakness, low blood pressure, salt and sugar cravings, depression and irritability can be symptoms of and all stem from exhausted adrenal glands.

### WEIGHT CONTROL AND YOUR ADRENAL GLANDS

Adrenaline burns fat; cortisol stores it.

If the adrenals become depleted, the fat-burning adrenaline production drops significantly. This decrease in adrenaline leads to a lowered ability to burn fat for energy. Cortisol production will also decrease with exhausted adrenal glands. The decrease in cortisol increases inflammation and it also decreases your ability to maintain blood sugars which, in turn, causes sugar cravings. An increase in sugar intake from the sugar cravings then stimulates fat storage through insulin. Low aldosterone from depleted adrenal glands decreases your ability to maintain blood salt, which causes salt cravings. The resulting increase in salt intake causes water retention, high blood pressure, kidney problems and other possible cardiac issues.

Nobody can lose unwanted fat under those circumstances. It's just not possible.

### ADRENAL GLAND FUNCTIONING

Adrenal function and strength should be high first thing in the morning, after a restorative night's sleep, and gradually decrease during the course of the day. This allows for higher energy levels in the morning tapering off during the day and low enough at night to allow you to sleep (but not so low that your body thinks it's gone into starvation mode and seeks food for sleep).

Malfunctioning adrenal glands operate differently. They are often on the low side in the morning, bottom out mid-afternoon and then rebound in the evening and become overactive at night. This creates the vicious cycle of not being able to fall asleep in time to get the proper 8 hours of sleep at night and then not having any energy in the morning and through the day because your adrenals have crashed and you have not had enough sleep to restore them. This is the classic pattern we see

in adrenal dysfunction patients; they are low first thing in the morning and then bottom out. We call this “stressed and wired”. This symptom of adrenal malfunctioning is quite evident on testing.

## LIFE WITH ADRENAL EXHAUSTION

Adrenal exhaustion is a kind of joyless existence. You have no energy through the day and when you do sleep, it’s restless and non-restorative. You feel like you want to sleep for 12 or 14 hours a night but even when you do, you still feel exhausted. You feel like you have never had enough sleep and never can have enough sleep.

When your adrenal glands are burned out, you have sugar and salt cravings, you’re irritable, you’re emotionally on edge, and any little thing (no matter what it is) is just too much for you. You view things you used to enjoy doing as just another dreaded chore that you don’t even want to think about. Anything added on to your life is just too much, and anyone even suggesting that you add to your to-do list is liable to get an earful.

We called this “stressed out and tired”.

## TESTING FOR ADRENAL GLAND FUNCTIONING

There are three tests that can be done for adrenal gland functioning:

In-Office Screening. A first morning urine sample is tested for the amount of salt present. This test is a simple screening test to give us an indication of whether your adrenal glands are a possible problem. It is also used to measure progress once a treatment has started.

Blood Testing. Blood tests can be done for adrenal functioning, but they measure only morning and/or afternoon cortisol. This information is useful, but may not provide a full picture.

Blood testing will only measure how much hormones are in your blood at that moment, like a “snapshot”; it won’t tell you how much of the hormones are getting into the cells or what the pattern of your adrenal function is throughout the day. It is key to understand that you can have normal hormone levels in the blood but low levels in the cells. The hormones may not be getting into the cells even though they are in the normal range in the blood. It is important to know how much of the hormones are reaching the cells. If the hormones circulating in the blood are not reaching the cells, your metabolism and health can suffer.

Saliva or Urine Testing. A more complete measure of adrenal function is done through saliva or urine testing. Saliva or urine samples are taken at four points during the day – first thing in the morning, before lunch, before supper, and at bedtime.

Saliva and urine testing measures the levels of cortisol and gives us a very accurate reading of the cortisol pattern and how your adrenal glands are functioning throughout the day. Saliva testing tells us whether your adrenal glands are producing too much or too little cortisol and, most importantly, tells us how much cortisol is getting into the cells and being metabolized.

Saliva and urine testing gives a more accurate measure of how much of the hormones are actually getting into the cells over the day, rather than just what is present in the blood. You could have a normal amount in the blood and low numbers in the cells.

It is the amount of hormones in the cells that is important to know. That tells us whether the adrenal hormones are getting into your cells and, if so, how much. This enables us to design a treatment plan to focus on improving adrenal functioning. The in-office screening can then be used later to monitor your progress.

There can be a number of reasons for the adrenals



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failing to function properly. It could be due to poor sleep, inadequate nutrition, inflammation, stress, poor digestion, metabolic syndrome, hormone imbalances or other contributing factors. The doctors at Green Apple Health Care can perform testing to pinpoint and address any issues affecting your adrenal glands.

**Call us today at (780) 485-9468. Let's get you the energy you need to be able to enjoy life again.**

