

Bioidentical Cortisol Replacement Therapy for Adrenal Fatigue

Cortisol (or generic hydrocortisone) is a bioidentical hormone that is produced by the adrenal glands (small glands that sit on top of each kidney) every day. It is necessary for life, and increases in response to stress along with adrenaline, the “fight or flight” hormone. Adrenal fatigue – or abnormally low Cortisol - is epidemic in this country. Today, stress is a part of our daily lives. Humans didn’t evolve to handle chronic stress. Early in evolutionary history, there were short bursts of high stress (e.g. running away from a bear) but long periods of low stress (e.g. simple foraging for food). Cortisol can become chronically depleted when the adrenals have to pump out too much for an extended period of time. This is called adrenal fatigue. There are many other potential causes of fatigue as well – such as anemia, sleep disturbances, chronic infections, toxic exposures, other hormone deficiencies, nutritional deficiencies, etc.

Adrenal fatigue makes a person feel exhausted, tired, unable to cope with daily life as well as before, depressed and anxious, and brain foggy. Cortisol is the hormone (along with thyroid hormones) that gives us our “get up and go.” As a matter of fact, Thyroid and Cortisol have been called the “two horses that pull our cart” through the day. If one is low, the other has to pull harder, and will become depleted faster. When Cortisol is replaced to optimal levels, patients feel an increase in energy and stamina, an increased ability to cope with normal daily life, and improved mental clarity and mood.

Cortisol production has a normal diurnal rhythm. It surges early in the morning so that we can get out of bed in the morning. It then slowly declines over the course of the day, and should be lowest at night, so that we can sleep. Too much Cortisol makes our body store fat, and can contribute to the weight gain seen in stressed people. High Cortisol at night can also contribute to insomnia.

The best way to test for Cortisol is a four-times-in-one-day saliva sample – before breakfast, before lunch, before dinner, and before bed. It can also be tested in the blood first thing in the morning, but for many, the simple act of having to get up, go to a blood lab and get stuck with a needle is enough stress to falsely raise their Cortisol level, possibly masking early adrenal fatigue. It also does not show the normal physiologic variation that is seen over the entire course of the day (such as an abnormal spike at night). Many patients with adrenal fatigue will have an almost “flat line” saliva Cortisol graph, or are sub-optimal.

Cortef is a small, white, 5 mg prescription tablet that is bioidentical Cortisol, or hydrocortisone. It is a hormone in the steroid family, which means that if you take too much it could have negative side-effects, such as weight gain, immune suppression, etc. These negative effects are listed on the internet and on the package insert, but do not happen when patients are taking the proper amount. Remember that when your adrenal glands are working properly, your body is producing this exact hormone in optimal

amounts – more when you are under stress, and less when you are calm and relaxed. You need this hormone to function, and it is bad for you to be too high or too low. Most doctors agree that a total divided dose of under 20 mg per day (or four full pills per day) is considered physiologic – in other words, the amount that your body would make naturally. This is a very safe dose, and should not produce negative side-effects. Most people do not need a full 20 mg since their body is still making some hormone, but a few patients do. Men tend to need higher doses than women to feel well.

Cortisol is a short-acting hormone, lasting about 3-5 hours total per dose. Its effects are usually felt very quickly – usually within 5 - 15 minutes. Remember, if the dose is correct, there will be no negative side-effects. Instead, the patient will feel better, calmer, more focused and able to cope, with improved energy and stamina to make it through the day. If the dose is too high, then patients may feel irritable, tense or jittery, or experience an increase in appetite. Very rarely, a patient may have an extreme sensitivity to hormones in general and will not be able to tolerate even a low dose. If that is the case, sometimes low dose animal glandular extracts or adaptogenic herbs can be used.

A typical dosing schedule for Cortef for Adrenal Fatigue would be something like 7.5 mg at 7 a.m. (1 ½ pills), 5 mg at noon (1 pill), and 2.5 mg at 4 p.m. (½ pill), all taken on an empty stomach for better absorption. For some this would be too much, for others, not enough. Each patient needs to adjust the dose depending on how they feel, and their individual tolerance for the hormone. Again, on higher stress days, you might need to take more, and on lower stress days, less or even none. Many can get by with only a morning and/or noon dose, and don't need the later afternoon dose. I do not recommend taking Cortisol after 3 - 4 pm because it may cause insomnia. However, if you know that you are going to have a long evening event, you can take more Cortef later on that day to help you have the energy to make it through the evening.

With proper treatment and care, the adrenal glands can sometimes recover, so many patients may not need to take Cortef forever, or only occasionally after a while. Things that help the adrenals to recover include optimizing all of your bioidentical hormone levels (especially thyroid), getting enough sleep and rest, decreasing stress, taking good quality nutritional supplements, and taking certain herbs that are known as “adaptogens.” Adaptogenic herbs include Rhodiola, Resveratrol, Ginseng, and many others. These herbs do not replace Cortisol, but seem to help the body have a more normal response to stress, which helps decrease the strain on the adrenal glands over time. Remember that any long-term illness is experienced as a stressor to your body, as is extreme exercise (such as marathon running) and negative emotions. If you have adrenal fatigue, it is actually counter-productive to do too much aerobic exercise. The best exercise for people with adrenal fatigue is basic walking, mild weights, and/or yoga.

Overall, treating adrenal fatigue with bioidentical Cortisol makes you feel a lot better in a short period of time, and can make a big difference in your quality of life. Long-term

improvements in diet, hormones, nutrition, and sleep can correct the adrenal fatigue so that patients can lead a more normal life. To your health!

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