# **Dealing with Adrenal Fatigue using Foods and Herbs**

# Weekly Oil Chats with Stacey Hall and Ina Mohan February 20, 2013 at Raw Food Express

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# Adrenal Fatigue Causes

Adrenal fatigue is produced when your adrenal glands cannot adequately meet the demands of stress. The adrenal glands mobilize your body's responses to every kind of stress (whether it's physical, emotional, or psychological) through hormones that regulate energy production and storage, immune function, heart rate, muscle tone, and other processes that enable you to cope with the stress.

Anyone can experience adrenal fatigue at some time in their life. An illness, a life crisis, or a continuing difficult situation can drain the adrenal resources of even the healthiest person. However, there are factors that can make you more susceptible to adrenal fatigue. These include certain lifestyles (poor diet, substance abuse, too little sleep and rest, or too many pressures), chronic illness or repeated infections such as bronchitis or pneumonia, prolonged situations that you feel trapped or helpless in (bad relationships, stressful jobs, poverty, imprisonment), or maternal adrenal fatigue during gestation.

### How chronic stress affects the adrenal glands

Science tells us that if you experience stress on a chronic basis, the tiny adrenal glands that moderate your stress response and keep many other hormones balanced will suffer. The stress response — when the adrenals produce the hormone cortisol — is normal. We need cortisol to handle emergencies. However, the stress response is designed to be short-term, with a fairly quick return to a relaxed baseline.

Unfortunately, our adrenals don't know the difference between a true emergency and the stress from merely sitting in a traffic jam. Many of us stay revved up all day in a 'fight-or-flight' state. But when cortisol stays elevated like that, our bodies gradually become less sensitive to the mechanism that helps bring it back to normal.

## The consequences of high cortisol

Chronically high cortisol interferes with digestion, immune function, sleep, and the body's ability to produce other essential hormones, such as DHEA, testosterone, estrogen, progesterone, and thyroid hormone. Over time, unrelenting cortisol production can contribute to excess abdominal fat, high blood pressure, high blood sugar, and aches and pains from too much inflammation. It demands too much from the adrenal glands and affects DHEA production, which in turn compromises bone health, immunity, mood, and sex drive.

As the adrenal glands become increasingly compromised, it's harder for them to make cortisol. Instead, extra adrenalin is produced to compensate, which can make us irritable and shaky. Adrenal fatigue can cause low blood sugar, anxiety, inability to concentrate, lightheadedness on standing, allergies, and low blood pressure. Now we are on our way to pure exhaustion.

People experiencing adrenal fatigue often have to use coffee, sodas and other stimulants to keep awake in the morning and to prop themselves up during the day.

Although it affects millions of people in the U.S. and around the world, conventional medicine does not yet recognize it as a distinct syndrome.

## Good News: Adrenal dysfunction can be healed

Although stress management (both decreasing your stress load and adjusting your emotional response to stressors) is the most important step in reversing adrenal fatigue, changing *what* you eat, *when* you eat, and *how* you eat can make a dramatic difference.

# Signs and Symptoms of Adrenal Fatigue

Typically brought on by prolonged stress (often combined with poor nutrition, over exercising, and lack of sufficient sleep), adrenal fatigue is mainly marked by a consistent lack of energy. Other signs and symptoms include:

- caffeine dependence
- irregular menstrual cycles
- insomnia
- weight gain (especially around the abdomen)
- muscle and/or joint pain
- salt cravings
- headaches
- low libido
- You feel tired for no reason
- You have trouble getting up in the morning, even when you go to bed at a reasonable hour
- You are feeling rundown or overwhelmed
- You have difficulty bouncing back from stress or illness

## How to eat for Adrenal Fatigue

## First and foremost: timing your meals and snacks

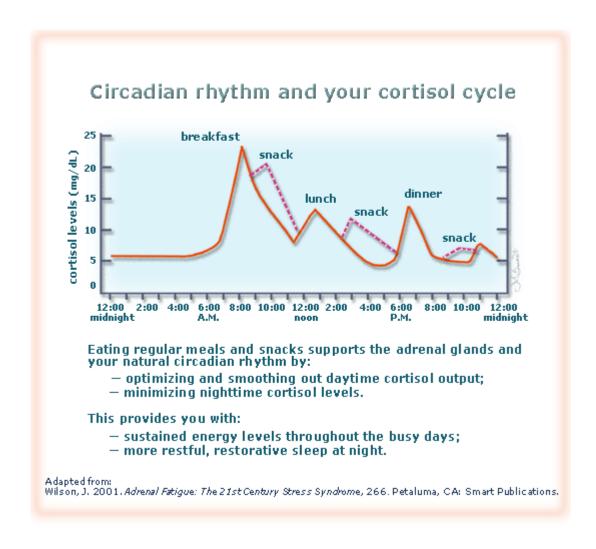
Don't allow yourself to get too hungry. Low blood sugar alone produces a stress reaction in the body and can tax the adrenals. You may not realize that your body is in constant need of energy — even as you sleep. And because cortisol is the primary adrenal hormone, it serves as a kind of moderator in making sure your blood sugar *between* meals, especially during the night, stays adequate.

Long periods without food make the adrenals work harder by requiring them to release more cortisol and adrenalin to keep your body functioning normally. Eating three nutritious meals and two to three snacks throughout the day is one way to balance blood sugar and lessen the adrenal burden.

When you eat your meals and snacks can make a big difference. As you can see in the graph below, cortisol follows a natural cycle that works with your circadian rhythm. Normally, it begins to rise around 6:00 AM and reaches its highest peak around 8:00 AM. Throughout the day, cortisol gradually and naturally declines — with small upward bumps at meal times — to prepare your body for nighttime rest. That's why cortisol is normally at its lowest level during the night.

Ideally, you want to work with this natural cycle to keep the tapering-off of levels as smooth as possible as the day progresses, and to avoid dramatic ups and downs. Eating the majority of your food earlier in the day can help accomplish this, so can eating an early dinner (by 5:00 or 6:00 PM). If it's difficult for you to eat early, you can at least try to make your evening meal the lightest one of the day. If your cortisol levels are still high in the evening, you may be attracted to foods that are high in sugar and fat. Unfortunately, this "night-eating" habit usually can further upset your hormone balance.

Keep in mind that cortisol will also rise a bit with exercise. Lighter activities, such as a walk after dinner or some gentle stretching, will not interrupt this natural tapering-off process. But to work in concert with your body's natural cortisol cycle, more intense exercise is best planned for the morning or early afternoon.



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#### What to Eat and Drink

In general eat meals and snacks made of fresh whole foods, preferably organic or locally grown, without colors, dyes, chemicals, preservatives or added hormones.

Including some healthy plant protein and complex carbohydrates in all of your meals and snacks (especially in the morning) will have a stabilizing effect on your blood sugar,

which, in turn, can help you overcome cravings for caffeine and sugars. No longer will it be an issue of will power.

It is important to remember that foods that are converted too quickly into energy (like most fruits, refined carbohydrates, sugary snacks or highly processed foods) will quickly let you down. Unfortunately, the surge of energy you get from consuming these foods is followed by an even greater dip in energy, causing you to feel worse. Sugar and simple carbohydrates stimulate a spike in blood sugar and a subsequent spike in insulin that clears sugar from our bloodstream so fast that we "crash." Complex carbohydrates don't cause this same spike and crash, though too many carbs in general can still imbalance blood sugar.

A reduction of caffeine is recommended, as caffeine can over-stimulate the adrenals and affect sleep patterns.



Image courtesy of http://www.womentowomen.com/adrenalhealth/adrenalglandfunction-nutrition.aspx

## Salt and adrenal imbalance

In most cases of adrenal fatigue, salt (in moderation) benefits those who add it to their diet. Unless you are one of the rare people with adrenal fatigue *and* high blood pressure, add some salt to your food. A sea salt, Himalayan salt or Celtic salt is preferred, as these contain the valuable nutrients. Some of the symptoms of adrenal fatigue are actually caused by your body's needs for salt.

People with adrenal fatigue often crave salt. Salt can increase blood pressure, but low blood pressure (hypotension) is a very common sign of adrenal insufficiency. If you feel lightheaded when you get out of bed in the morning, stand up quickly, or get up out of a bath or hot tub, you may very well have low adrenal function, so including a quality source for salt into your diet could be helpful.

Salt cravings in people with adrenal insufficiency are mostly due to low levels of aldosterone, a steroid hormone that, like cortisol, is produced by the adrenal cortex. Aldosterone is part of the complex mechanism that regulates blood pressure in the body, partly by helping the body to hang on to salt and water. Levels of aldosterone go up and down in a similar daily pattern as cortisol, and also are influenced by stress. Generally speaking, when cortisol goes up, aldosterone goes down, lowering blood pressure. If cortisol levels stay high, or if your adrenal glands run out of steam, chronically low aldosterone can disturb both electrolyte balance and cell hydration. Increasing your salt intake is one way to help restore these imbalances.

# Vitamins C, E, B complex

Vitamins like C, E and all the B vitamins (especially pantothenic acid and B6) have crucial roles in the production and actions of stress hormones. Magnesium provides necessary energy for your adrenals and every cell in your body to function properly. Calcium and several trace minerals, like zinc, manganese, selenium, and iodine, provide calming effects in the body. These minerals can help relieve the stress associated with adrenal fatigue and imbalance, which will ultimately restore normal cortisol output.

# **Vegetables**

Every day, you should include 6-8 servings of a wide variety of vegetables in your meals, especially those that are naturally highly colored (bright green, red, orange, yellow or purple). Vegetables provide essential vitamins, minerals, antioxidants and a high amount of fiber. It is a good idea to vary how you prepare vegetables, because different nutrients are made available through different cooking methods.

Raw and lightly cooked are your best preparation options. However, always cook your crucifers (broccoli, cabbage, cauliflower, etc.) to neutralize the goitrogenic compounds (thyroid suppressors).

## **Fruits**

People with adrenal fatigue and blood sugar problems should go lightly on fruits, especially in the morning. Fruits contain a significant amount of fructose and potassium, which is a detrimental combination for those with exhausted adrenals. If you eat fruit it is preferable organically grown. Below is a short list of fruits people with adrenal fatigue tend to do well with, and ones they should avoid.

Preferred Fruits	Fruits to Avoid
Papaya	Bananas
Mango	Raisins
Plums	Dates
Pears	Figs
Kiwi	Oranges
Apples	Grapefruit
Grapes (only a few)	
Cherries	

# Summary of What to Eat for Adrenal Fatigue

- 1. Eat a wide variety of whole, natural foods
- 2. Combine a healthy fat and plant-based protein in most of your meals
- 3. Eat lots of raw or lightly cooked vegetables, especially the brightly colored ones
- 4. Salt your food to a pleasant taste using high quality salts, such as Celtic or Himalayan
- 5. Eat complex carbohydrates like whole grains, whole wheat, brown rice, etc.
- 6. Avoid fruit in the morning
- 7. Mix 1-2 tablespoons of good quality oils (cold pressed olive, grape seed, safflower, flax, etc.) into grains and vegetables daily
- 8. Eat high quality, unprocessed, organic food if possible

By following these simple guidelines, your food intake can help support your adrenals and prevent low blood sugar.

# Herbs for Adrenal Fatigue

Ashwagandha (Withania somnifera) root comes from India's Ayurvedic medicine tradition. It is particularly useful for stress-induced sleeping problems.

## Eleuthero / Siberian Ginseng

*Eleuthero (Eleutherococcus senticosus*) is an adaptogen herb used to support cognition, alertness, immune function, and physical stress. The most recent research on adaptogens views them as stress mimetics and focuses on their ability to increase levels of stress protective heat shock proteins. In other words, adaptogens act like mild stressors to the body, and the body's protective response is what accounts for the therapeutic benefits.

Astragalus (Astragalus membranaceus) comes to the West through its long use in Chinese medicine. It is typically used in combination with other herbs, especially Rehmannia and Eleuthero. Astragalus is both a tonic and an adrenal support herb. Its key bioactive components are polysaccharide fractions, isoflavonoids, saponins, triterpenoids, and gaba-aminobutryic acid. These substances can affect growth hormone levels, blood glucose, general inflammation, blood pressure, blood flow, and water balance in the body

**Rhodiola** (**Rhodiola rosea**) is another adaptogenic herb with a long history of traditional use. It also has a number of positive human trials in the areas of stress and fatigue management, enhancement of mental performance and treatment of mild depression. Rhodiola exerts these beneficial effects by regulating key mediators of the stress response including cortisol, nitric oxide, molecular chaperones (HSP70) and stress activated protein kinases.

In a 2009 study, for instance, researchers found that taking 576 mg of a standardized rhodiola extract in supplement form daily reduced stress and increased mental performance (without producing adverse effects) in a group of adults suffering from stress-related fatigue.

**Rehmannia** (**Rehmannia** glutinosa) is an herb used extensively in Chinese medicine. It is similar to licorice and can be used as both a tonic and as specific support for the adrenal glands. It is helpful for people suffering general debility, adrenal depletion, and poor immune system function, specifically in the context of autoimmune disease.

*Licorice Root* is truly a friend to the adrenal cortex. A staple of traditional medicine for adrenal insufficiency and ulcers, this herb contains triterpenoid saponins that influence cortisol-cortisone balance throughout the body. Glycyrrhizin is the main active compound in licorice. At higher amounts, however, it has a strong effect on the kidney and allows cortisol to interact with aldosterone receptors, which affects

sodium/potassium balance and increases blood pressure. For this reason, patients taking higher amounts of licorice need to be monitored closely.

*Ginkgo (Ginkgo biloba)* is a common herb well known for its ability to enhance peripheral circulation and for its neuroprotective effects. Often overlooked is the fact that Ginkgo can favorably affect stress levels. In one study, it lowered cortisol levels in healthy patients undergoing glucose tolerance testing.

**Korean Ginseng (Panax ginseng)**: The main root (not the lateral roots or root hairs) of this plant is traditionally used in western herbal medicine to remedy physical or mental exhaustion, lowered immunity and to facilitate adaptation to stress. In Traditional Chinese Medicine (TCM) it is considered a key herb for reinforcing vital energy and longevity