

Adrenal Imbalances: The Stress-Illness Connection

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Although most people have experienced feeling unwell during times of elevated stress, few are aware of the underlying connection between these experiences. Increased stress stimulates our adrenal glands to produce higher levels of the hormones cortisol, DHEA and adrenaline. After a stressful situation has resolved these hormones should soon return to normal levels. However, sometimes this re-balancing does not occur which results in people maintaining either excessive or insufficient adrenal hormone levels for long periods of time. Both adrenal excess and insufficiency can lead to significant illness as discussed below.

What Causes Stress?

One medical definition of the word stress is “a response by the body to a stimulus that disturbs or interferes with normal equilibrium.” From this definition it is obvious there can be many types of stress that trigger adrenal imbalances. Some major stressors are listed below:

- emotional imbalances
- insufficient sleep
- excessive sugar and carbohydrate intake
- shift work schedule
- frequent skipped or delayed meals
- severe infections
- overworking (mental or physical)
- surgery or traumatic injury
- excessive exercise (especially endurance)
- toxic exposures

Identifying Stress

There are also many clinical presentations of adrenal imbalances, depending on the type of imbalance and one's overall state of health. Some of the more common signs, symptoms and associated conditions are listed below:

- fatigue
- depression
- chronic pain
- difficulty sleeping
- dizziness




- low sex drive
- anxiety
- weight fluctuation
- low thyroid function
- low blood pressure
- frequent infections
- autoimmune illnesses
- sugar and/or salt cravings
- dry skin
- blood sugar imbalances

Adrenal Support

Taking adrenal balancing (adaptogenic) herbs can make one's body more resilient during periods of elevated stress. The main herbs with adaptogenic activity are ashwaganda, cordyceps, rhodiola and licorice. In addition, the vitamins C and B5 are required by the adrenal glands to produce the stress-response hormones. There are also highly-specific adrenal balancing treatments that may be prescribed by a naturopathic physician once a patient's exact adrenal function is assessed.

Assessing Adrenal Function

Adrenal function can be accurately and conveniently assessed by naturopathic physicians using saliva testing for the adrenal hormones cortisol and DHEA. This test is called the Adrenal Stress Index (ASI) and entails the collection of four saliva samples during a typical 24 hour period to assess a patient's daily adrenal rhythm. Determining the exact adrenal rhythm is important as adrenal excess and deficiency can mimic each other clinically and require different treatments. From this information an individualized adrenal-balancing treatment plan can be prescribed including diet recommendations, lifestyle counselling, nutritional and/or herbal supplementation. 

References:

Wilson, James ND. Adrenal Fatigue, Smart Publications, Petaluma, CA, 2003.
Shames, Richard MD. Nutritional Management of Stress-Induced Dysfunction, Advanced Nutrition Publications, 2002.



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