

Adrenal Glands and Fatigue

It seems that in this day and age with all of our modern conveniences, people are more stressed than they have ever been before. This stress however is taking a toll on our precious adrenal glands. Under stress, the adrenal glands become overworked, excessive amounts of adrenaline are produced, minerals are drained from the body and the body becomes acidic. Acids then drain calcium from the bones and tissues causing a myriad of illnesses including inflammation and osteoporosis. Excessive adrenaline also produces extra insulin that results in hypoglycaemia and eventually diabetes. In order to break this vicious cycle, we need to stop and learn about the function of our adrenal glands and what we can do to keep them functioning in a balanced, healthy manner throughout each day of our lives.

What are the Adrenal Glands and What Do They Do?

The adrenal glands are small, yellow masses of tissue that are triangular in shape and are situated on top of each kidney. They are part of the endocrine system which is made up of glands that secrete hormones directly into the bloodstream. Each adrenal gland is divided into two parts. The outer region is called the *adrenal cortex* and the inner core, the *adrenal medulla*. The functions of the adrenal cortex are absolutely necessary to life. The adrenal cortex is divided into three zones that can be seen under a microscope. The outer zone secretes a hormone called *aldosterone*, which helps to maintain blood pressure and blood volume by inhibiting the amount of sodium excreted in the urine. The middle and inner zones work together and secrete several important hormones including *hydrocortisone*, *corticosterone* and *androgen*. Hydrocortisone or *cortisol* regulates metabolism and controls the way the body utilizes carbohydrates, proteins, and fats. Cortisol promotes the production of glucose from amino acids and fats in the liver. This ensures adequate fuel supplies for the cells when the body is under stress. Hydrocortisone and corticosterone help to suppress inflammatory reactions and regulate the immune system. They will act to suppress the immune system if it becomes overly reactive. Hydrocortisone counteracts inflammation, pain and swelling of the joints in arthritis and bursitis.

Within the inner core of each adrenal gland is the adrenal medulla. Its tissue develops from nerve tissue and it is controlled by the sympathetic nervous system, the body's first line of defence against stress. It secretes the hormones, *epinephrine* or adrenaline and *norepinephrine* or noradrenalin in response to sympathetic nerve stimulation. Epinephrine and norepinephrine bring about all the responses necessary for the "fight or flight" response.

People have been known to perform amazing feats like lifting a heavy piece of furniture out of a burning house or lifting a car to free a child trapped underneath. The adrenal glands work together with other hormone producing glands that are regulated by the pituitary and hypothalamus in the brain. In today's world, the sympathetic nervous systems of most people have become abused. People produce adrenaline while sitting at stop lights because they are late for a meeting or preparing for examinations. Other stressors of our times are air and water pollution, packaged foods filled with preservatives, consumption of prescription and non-prescription drugs, caffeine, alcohol, and nicotine from cigarettes, stressful jobs, harsh weather, fires, and frightening news reports. Daily stress from an unhealthy lifestyle produces high levels of cortisol and thus fatigue or illness.

Stress and the Adrenal Gland

Glucose and fatty acid levels rise in the blood to assure the necessary fuel for emergency situations. Cortisol from the adrenal glands is produced daily in small amounts. Excessive cortisol from feelings of fear, anger, and stress can cause impaired immune response, rapid heartbeat, over stimulation of bile flow, overproduction of insulin, and frequent urination.

Bodily Indications of Adrenal Imbalance:

There are several bodily signs that one can observe for adrenal fatigue and exhaustion:

1. Vertical ridges on the fingernails
2. Red tipped tongue
3. Falling hair
4. Chronic exhaustion
5. Anxiety, nervousness, or panic attacks
6. Rapid heartbeat
7. Weight gain or weight loss
8. Acidity of the saliva and urine (below 7.0 shows acidity within lymph fluids)
9. Frequent urination
10. Intense craving of sweets or stimulants
11. Feeling exhausted in the early morning hours upon awakening and wide awake at night with difficulty sleeping.
12. Weakened immune system causing frequent illnesses
13. Acid reflux and/or indigestion
14. Stomach cramping
15. Muscular cramping
16. Headaches
17. Hypoglycaemia
18. Diabetes

Iridology done by a qualified doctor can determine whether you have this condition or whether you are prone to it. Regular spinal work is also very important in prevention and treatment of this condition. Remember, prevention is better than cure.

Dr. Frank Scott.

Pr.No.1010000168416

Dip. Micro; Dip .Clinical Path; D. Nat. Med; ND; Masters Iridology.

Naturopath/Iridologist

Ph. 044 870 0887/0769313174