



OPTIONS CENTER HEALTH TOPIC



THE ADRENAL STRESS INDEX

The adrenals are two small glands, each weighing 3 to 5 grams that are located above the kidneys. **The adrenals have one of the highest rates of blood flow per gram of tissue, and the highest content of Vitamin C** per gram of any tissue in the body.

The Adrenal Rhythm and Its Importance

The human adrenal gland does not secrete its steroid hormones at a constant level throughout the day. The hormones are actually released in a cycle with the highest value in the morning and the lowest value at night. This 24-hour cycle is called the circadian rhythm. **An abnormal adrenal rhythm can influence many functions of the body, some of which are listed below.**

1. Energy Production. Abnormal adrenal function can alter the ability of cells to produce energy for activities of daily living. **People who have a hard time rising in the morning, or who suffer with a low energy level during the day, often have abnormal adrenal rhythms and poor blood sugar regulation.**
2. Muscle & Joint Function. Abnormal adrenal rhythms are known to **compromise tissue healing**. Reduced tissue repair and increased tissue breakdown can lead to muscle and joint breakdown with chronic pain.
3. Bone Health. The adrenal rhythm **determines how well we build bone**. If the night cortisol level is elevated and the morning level is too high, our bones do not rebuild well, and we are more prone to the osteoporotic process. **Stress is the enemy of the bones**. In postmenopausal women, the effect of stress worsens due to the female hormone imbalances.
4. Immune Health. Various immune cells (white blood cells) cycle in and out of the spleen and bone marrow for special conditioning, and possible nourishment and instructions. **This immune system trafficking follows the cortisol cycle**. So if the cycle is disrupted, especially at night, then the immune system is adversely affected. Short and long-term stress is known to suppress the immune response on the surfaces of our body as in lungs, throat, urinary and intestinal tract. With the reduction in the surface antibody (called secretory IgA), the resistance to infection is reduced and allergic reactions are believed to increase.

5. Sleep Quality. The ability to enter REM sleep cycles, i.e. regenerative sleep, **is interrupted by high cortisol values at night and in the morning**. Chronic lack of REM sleep can reduce the mental vitality and vigor of a person and induce depression.
6. Skin Regeneration. Human skin regenerates **mostly during the night**. With higher night cortisol values, **less skin regeneration takes place**. So, a normal cortisol rhythm is essential for optimal skin health.
7. Thyroid Function. The level of Cortisol at the cell level controls thyroid hormone production. Quite often, hypothyroid symptoms such as fatigue and low body temperature are due to an adrenal maladaptation.
8. Grain Intolerance and Stress. About 12-18% of the US population suffers from a genetic intolerance to grain. Specifically, a high incidence occurs in Celtic, Germanic, and Nordic derivation. **The gut becomes inflamed** within 30 minutes after consuming the grains and **this can lead to an adrenal stress response**, increased cortisol and reduced DHEA.

At Options, Helen can use the findings in this panel of tests to recommend customized treatment and preventive measures that may include diet and lifestyle changes, hormones, botanicals and vitamins.



Do you need the ASI Test?

The ASI is mostly ordered for individuals that suffer from:

- ▶ Chronic stress and related health problems
- ▶ Lack of vitality and energy
- ▶ Muscle and joint pain
- ▶ Hypoglycemia
- ▶ Migraine headaches
- ▶ Osteoporosis
- ▶ Sleep disturbances
- ▶ Poor memory
- ▶ Alcohol intolerance
- ▶ Stress maladaptation
- ▶ Low sex drive
- ▶ Low body temperature

Call Options to make an appointment.

Information taken from Diagnos-Techs, Inc. (DTI) Adrenal Stress Index Patient brochure.