



Hormone Health and Your Body

The Importance of Understanding Hormone and Bodily Changes

Why Analyze Female Sex Hormones?

Hormone Markers

Estrogen
Estradiol
Estriol
Estrone

Progesterone
Testosterone

DHEA
Cortisol

Hormonal changes orchestrate the process leading to the beginning of menstruation. There are two phases during a woman's menstrual cycle, the first phase is considered the estrogen-dominant phase (prior to ovulation), and the second phase is progesterone-dominant (post-ovulation). The monthly shifts between estrogen to progesterone are crucial to a woman's health.

Symptoms of the reproductive and menopausal years

- *Breast pain and/or tenderness*
- *Cysts and lumps (breast, uterine)*
- *Fibrocystic breasts*
- *Depression / insomnia*
- *Irregular menstrual cycles*
- *Hot flashes*
- *Weight gain*
- *Brain fog*

Women normally produce small amounts of testosterone. This "male" hormone helps women stay strong, fit and sexually active, and may protect against breast cancer and cardiovascular disease. DHEA is the precursor to both female and male sex hormones and is released with cortisol under stress conditions. Measuring hormone levels is an important proactive step in health maintenance.

Why is Male Sex Hormone Balance Important?

Hormone Markers

Estradiol
Progesterone
Testosterone
DHEA
Cortisol

Testosterone is the primary male sex hormone and is released in pulses throughout the day. Testosterone production rises during puberty. After 35, free testosterone becomes less available due to increased testosterone-binding proteins and decrease in testosterone-releasing cells. Low testosterone levels or high stress in men's early 20's or 30's may cause below symptoms.

Symptoms of declining testosterone

- *Erectile dysfunction*
- *Decrease mental ability*
- *Insulin resistance*
- *Decreased sex drive*
- *Lethargy*
- *Weight gain*
- *Difficult urination*
- *Prostate enlargement*
- *Decline in muscle strength and mass*
- *Bone loss*

DHEA is the precursor to both female and male sex hormones, as well as to the stress hormone cortisol. The balance of testosterone with other estrogens, progesterone, DHEA, and cortisol influences men's health. Higher estrogen levels with low testosterone levels have been correlated with an increased risk of prostate problems. High cortisol and DHEA can increase anxiety, lower immunity and destabilize blood sugar, as well as the risk of cardiovascular disease.

How Do Stress Hormones Affect Your Body?

Standard Hormonal Markers for Assessing Adrenal Function

Estradiol
Progesterone
Testosterone
DHEA
Cortisol

Stress comes in many forms: mental, physiological, and environmental, but all forms of stress can generate a physiological response. The capacity to handle daily stress is influenced by factors that strain body systems, such as: allergies, environmental pollutants, infections, sleep deprivation, and mental illnesses.

Physical and emotional stress cause cortisol and DHEA release from adrenal glands. Cortisol helps the body respond to stress by increasing glucose metabolism for quick energy, decreasing immune response and stimulating a cascade of other hormones. DHEA heightens your awareness and memory retrieval while decreasing emotional response. The stress response is overall beneficial in handling immediate challenges. However, it is not healthy to be in a constant "fight or flight" which contributes to accelerated aging.

Contemporary life provides little time for people to allow their bodies to recover from stress. Chronic stress impacts cardiovascular health, reproduction, mental health and increases cancer risk.

Benefits of Analyzing These Markers Through Saliva

Testing through saliva is an easy, non-invasive and accurate way to provide a good "snapshot" of your hormone production throughout the day. The hormone present in the saliva is the active hormone that is available for bodily use. This will be beneficial for your physician and you to create an optimal hormone balancing plan.

Comprehensive Plus Panel

- *Assessment of major estrogens*
- *Estradiol and estriols levels have been shown to be higher in women with greater risk of breast cancer and polycystic ovarian disease.*

Recommended for women only.

Markers Tested

Estradiol (estrogen)*
Estrone (estrogen)*
Estriol (estrogen)*
Progesterone
Testosterone
DHEA
Cortisol (4x a day)

Comprehensive Panel

- *Provides an excellent snapshot of both the sex hormones and stress hormones*
- *Aids in assessing female sexual dysfunction*
- *Aids in assessing male sexual dysfunction*
- *Illuminates how stress may be interfering with the patients sex hormone balance*

Markers Tested

Estradiol (estrogen)
Progesterone
Testosterone
DHEA
Cortisol (4x a day)



MOSAIC
DIAGNOSTICS
Formerly Great Plains Laboratory

All trademarks are owned by the company and its affiliates.
©2023 Mosaic Diagnostics. All Rights Reserved. MDX-HORM-B 1-2023 v.1

Visit MosaicDX.com for more resources

(800) 288-0383 sales@mosaicdx.com
8400 W 110th Street, Suite 500, Overland Park, KS 66210

