



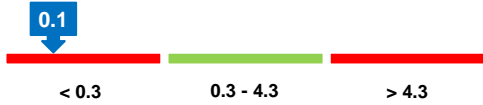
HEALTH COMPLETE TEST REPORT

Patient Name Jane Doe	Patient ID JD700618	Non-smoker	BMI 27	Waist 34 in
DOB 6/18/1970 (48 yrs.)	Report Date and Time 1/16/2019 12:00	Medications Synthroid, Valtrex, Lysine, Wellbutrin, Liothyronine, Allertec, Selenium, Vitamin Supplements.		
Gender F	Received Date and Time 1/9/2019 15:00			
Menopausal Status Postmenopausal	Specimen Collection Date and Time	Provider ID: 0000		
	Saliva Morning 1/6/2019 09:00	Doctor T		
	Saliva Noon 1/6/2019 12:00	17387 63rd Ave		
	Saliva Evening 1/6/2019 16:00	Lake Oswego, OR 497035		
	Saliva Night 1/6/2019 21:00	Ph: xxx-xxx-xxxx		
	Blood Spot 1/6/2019 09:00			

YOUR TEST RESULTS

█ Normal Range
 █ Low or High Range
 █ Your Levels

Estradiol (pg/mL)



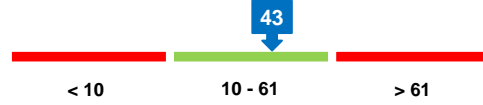
Progesterone (pg/mL)



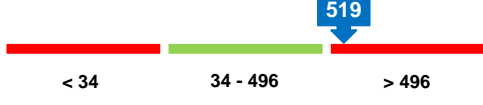
Pg/E2 Ratio*



Testosterone (pg/mL)



DHEA (pg/mL)



*Only when Estradiol is within normal premenopausal range

Cortisol Morning (ng/ml)



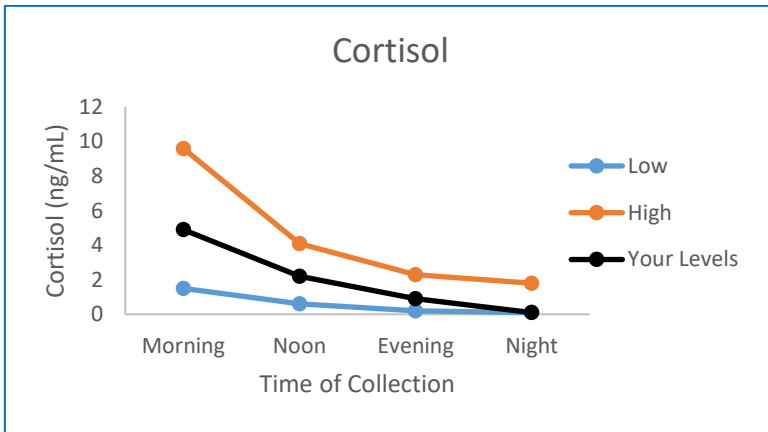
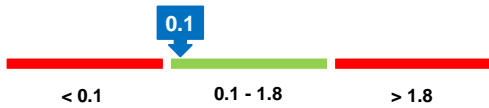
Cortisol Noon (ng/ml)



Cortisol Evening (ng/ml)



Cortisol Night (ng/ml)



What do your hormone results mean?

ESTRADIOL

Estradiol acts mainly as a growth hormone for the reproductive structures in females. In addition, estradiol works in conjunction with progesterone during the menstrual cycle and pregnancy. Low estrogen levels can cause low libido or diminished sex drive and too much estrogens can cause symptoms of estrogen dominance. In males, estradiol is involved in sperm maturation and also helps to maintain a healthy libido.

Estradiol has a significant role in maintaining healthy bone growth and improving blood flow in coronary arteries in addition to offering neuroprotective effects. Estrogens have been known to contribute to risk of breast cancer as well as some non-cancerous conditions like endometriosis and uterine fibroids.

PROGESTERONE

Progesterone in females is known to be involved in maintaining normal menstrual cycles and early stages of pregnancy. Low levels of progesterone can cause abnormal cycles or conception problems. Low progesterone levels could also result in higher estrogen levels, which has been known to decrease sex drive and cause weight gain. High progesterone levels have been known to be responsible for symptoms like mood swings, bloating, breast tenderness.

In men, progesterone acts as a precursor to testosterone. As men age, the testosterone levels decrease, the estradiol increases, and progesterone levels decline. Low progesterone levels in men can cause problems like weight gain, low sex drive, hair loss, depression or erectile dysfunction.

RATIO OF PROGESTERONE/ESTRADIOL

The ideal ratio of progesterone/estradiol ranges from 100-500 in premenopausal women, and 150-1000 in pre and postmenopausal women supplementing with oral or topical progesterone (excludes postmenopausal women with low estrogen levels and women on synthetic hormones (oral contraceptives or conventional hormone replacement therapy-HRT).

TESTOSTERONE

Testosterone has important role in maintaining bone strength, muscle mass and energy level. In women, testosterone contributes to sex drive or libido. Menopause causes significant decline in the testosterone levels. In men, testosterone is responsible for growth and development of sexual characteristics, facial and body hair, increased sexual drive and sperm production.

Low testosterone levels can result in conditions like hair loss, reduced muscle mass, hot flashes, depression and increased breast size. High testosterone levels have been linked with aggressive behavior, acne, low sperm count, liver disease and heart muscle damage.

DHEA

DHEA is produced by the adrenal glands and is a precursor to both testosterone and estrogens. DHEA is also a neurohormone as small quantities are produced in the brain. It has a broad spectrum of benefits including improved energy, mood, memory, increased testosterone levels, enhanced libido and immune function. In men, low DHEA levels can cause low libido, reduced muscle mass and strength, depression, fatigue and compromised immune function. In women, DHEA is known to balance other hormones like estrogens, progesterone and testosterone. Low DHEA levels can cause weight gain, depression, fatigue and low libido.

CORTISOL

In addition to being called as "the stress hormone", cortisol helps in proper glucose metabolism, converting sugars into energy. High cortisol levels in men have been associated with hyperglycemia, weight gain, compromised immune function and high blood pressure. Cortisol imbalance is known to result in conditions like irritability, fatigue, depression, foggy thinking, weight gain and bone loss. Stress reducing activities including meditation and breathing exercise have been recommended to relieve stress levels and avoid premature aging.

YOUR TEST RESULTS

TSH ($\mu\text{IU/mL}$)

Normal Range

Low or High Range

Your Levels



fT3 (pg/mL)



fT4 (ng/dL)



a-TPO (IU/mL)



What do your test results mean?

Thyroid-Stimulating Hormone (TSH):

In primary hypothyroidism, thyroid-stimulating hormone (TSH) levels are elevated. In primary hyperthyroidism, TSH levels are low. The ability to quantitative circulating levels of TSH is important in evaluating thyroid function. It is especially useful in the differential diagnosis of primary (thyroid) from secondary (pituitary) and tertiary (hypothalamus) hypothyroidism. In primary hypothyroidism, TSH levels are significantly elevated, while in secondary and tertiary hypothyroidism, TSH levels are low or normal.

Elevated or low TSH in the context of normal free thyroxine is often referred to as subclinical hypo- or hyperthyroidism, respectively.

T3 (Triiodothyronine), Free:

Normally triiodothyronine (T3) circulates tightly bound to thyroxine-binding globulin and albumin. Only 0.3% of the total T3 is unbound (free); the free fraction is the active form. In hyperthyroidism, both thyroxine (tetraiodothyronine; thyroxine: T4) and T3 levels (total and free) are usually elevated, but in a small subset of hyperthyroid patients (T3 toxicosis) only T3 is elevated.

T4 (Thyroxine), Free:

Free thyroxine (fT4) comprises a small fraction of total thyroxine. The fT4 is available to the tissues and is, therefore, the metabolically active fraction. Elevations in fT4 cause hyperthyroidism, while decrease causes hypothyroidism.

Thyropoxidase (TPO) Antibodies:

Disorders of the thyroid gland are frequently caused by autoimmune mechanisms with the production of autoantibodies. Anti-TPO antibodies activate complement and are thought to be significantly involved in thyroid dysfunction and the pathogenesis of hypothyroidism.

In patients with sub-clinical hypothyroidism, the presence of TPO antibodies, predicts a higher risk of developing overt hypothyroidism, 4.3% per year versus 2.1% per year in antibody-negative individuals. Such patients may be at risk of developing other autoimmune diseases, such as adrenal insufficiency and type 1 diabetes.