

Performing Laboratory:

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Patient Information here.

Panel / Test	Result	Normal Reference Range	
Testosterone Collected: Sep 20, 2024 Reported: Dec 18, 2024	<10	10-61 pg/mL 49-185 pg/mL 118-3950 pg/mL	Women: All Men: All Men: Topical
Progesterone Collected: Sep 20, 2024 Reported: Dec 18, 2024	92 pg/mL	99-333 pg/mL 9-126 pg/mL 9-126 pg/mL 196-3304 pg/mL 35-400 pg/mL 9-75 pg/mL 9-126 pg/mL	Women: Premenopausal - Luteal Women: Premenopausal - Follicular Women: Postmenopausal Women: Topical, Troche, Vaginal (20-6 Oral Women: Synthetic HTR, Contraceptives Men: all
Cortisol Collected: Sep 20, 2024 Reported: Dec 18, 2024	0.6 ng/mL	1.5-9.6 ng/mL	
LH Collected: Sep 20, 2024 Reported: Dec 18, 2024	4.0 mIU/mL	1.6-9.3 mIU/mL 13.8-71.8 mIU/mL 0.5-12.8 mIU/mL 15.0-64.0 mIU/mL	Premenopausal - Follicular Peak Level Premenopausal - Luteal Postmenopausal
FT3 Collected: Sep 20, 2024 Reported: Dec 18, 2024	3.2 pg/mL	2.1-4.2 pg/mL	
FT4 Collected: Sep 20, 2024 Reported: Dec 18, 2024	1.6 ng/dL	0.8-2 ng/dL	

TSH	0.8 µU/mL	0.5-4.7 µU/mL	
Collected: Sep 20, 2024 Reported: Dec 18, 2024			
TPO	35 IU/mL	0-60 IU/mL	
Collected: Sep 20, 2024 Reported: Dec 18, 2024			
Estradiol	1.8 pg/mL	1.1-7.8 pg/mL	Women: Premenopausal - Luteal
Collected: Sep 20, 2024 Reported: Dec 18, 2024		0.8-6.5 pg/mL	Women: Premenopausal - Follicular
		0.3-4.3 pg/mL	Women: Postmenopausal
		1.2-17.8 pg/mL	Women: Estrogen Replacement
		0.3-4.3 pg/mL	Women: Synthetic HTR
		0.4-3.3 pg/mL	Men
DHEA	73 pg/mL	34-496 pg/mL	Women
Collected: Sep 20, 2024 Reported: Dec 18, 2024		42-578 pg/mL	Men
FSH	8.3 mIU/mL	2-10 mIU/mL	Premenopausal - Follicular
Collected: Sep 20, 2024 Reported: Dec 18, 2024		7-20 mIU/mL	Mid-cycle
		2-10 mIU/mL	Premenopausal - Luteal
		20-100 mIU/mL	Postmenopausal

Testing Methods

COVID-19 (Coronavirus 2019): RNA from a saliva (oral fluid) sample is extracted and amplified. This is followed by identification of the virus by quantitative PCR (qPCR) The limit of detection is 10,000 RNA copies/ml (10 RNA copies/µl).

A Not Detected (negative) test result does not preclude 2019-nCoV infection and should not be used as the sole basis for treatment or other patient management decisions. Negative results must be combined with clinical observations, patient history, and epidemiological information.

Indeterminate means an inadequate specimen was taken by the patient such that no human RNA is present. To request a free replacement kit to re-test, please contact customerservice@mylabbox.com

This test is intended for in vitro diagnostic use under FDA Emergency Use Authorization only. Results are for the presumptive identification of 2019-nCoV RNA. The Testing Laboratory is certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA-88) as qualified to perform high complexity clinical laboratory testing.

CORTISOL in addition to being called “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.

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.

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).

FOLLICLE STIMULATING HORMONE (FSH) - FSH helps the reproductive system both in men and women. In women, it is responsible for growth of ovarian follicles, which produce estrogens and progesterone to maintain a normal menstrual cycle. In men, FSH involves development of gonads and sperm production.

In women, high FSH levels may indicate a loss of ovarian function, menopause, polycystic ovarian syndrome (PCOS) or chromosomal abnormality such as Turner's syndrome. An increase in FSH may also indicate decline in fertility. Low FSH levels may indicate a woman not producing eggs.

HEMOGLOBIN A1c (HbA1c) Hemoglobin A1c (HbA1c), is a form of hemoglobin (a blood pigment that carries oxygen) that is bound to glucose. Blood HbA1c levels are reflective of how well diabetes is controlled. The normal range for hemoglobin A1c is less than 5.7%. HbA1c levels are reflective of blood glucose levels over the past six to eight weeks and do not reflect daily ups and downs of blood glucose. High HbA1c levels indicate poorer control of diabetes than levels in the normal range.

HS-C-REACTIVE PROTEIN (HS-CRP) Blood measurements of hs-CRP are often performed to assess the risk of future heart disease. C-Reactive protein (CRP) is produced by the liver and elevated CRP levels can be measured in blood in response to inflammation. High-sensitivity CRP (hs-CRP) is more precise than standard CRP when measuring baseline (ie, normal) concentrations and enables a measure of chronic inflammation. Atherosclerosis is an inflammatory disease and hs-CRP is known as a biomarker of atherosclerotic cardiovascular disease risk.

LUTEINIZING HORMONE (LH) is a hormone released by the pituitary gland, located on the underside of the brain. In women, an increase in LH level at mid-cycle causes release of eggs (ovulation).

The test evaluates if: you are ovulating or have reached menopause.

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.

TESTOSTERONE Testosterone has an 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.

THYROID-STIMULATING HORMONE (TSH) In primary hypothyroidism, thyroid-stimulating hormone (TSH) levels are elevated. In primary hyperthyroidism, TSH levels are low. The ability to quantify 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.

THYROPEROXIDASE (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.

TRIGLYCERIDES Increased plasma triglyceride levels are indicative of a metabolic abnormality and, along with elevated cholesterol, are considered a risk factor for atherosclerotic disease. In the presence of other coronary heart disease risk factors, both borderline high (150-200 mg/dL) and high values (>200 mg/dL) require attention. Triglyceride concentrations >1,000 mg/dL can lead to abdominal pain and may be life-threatening due to chylomicron-induced pancreatitis.

TOTAL CHOLESTEROL This is a measure of the total amount of cholesterol in your blood, including low-density lipoprotein (LDL) cholesterol and high density lipoprotein (HDL) cholesterol.

HDL (GOOD) CHOLESTEROL With HDL cholesterol, higher levels are better. Low HDL cholesterol puts you at higher risk for heart disease. People with high blood triglycerides usually also have lower HDL cholesterol. Genetic factors, type 2 diabetes, smoking, being overweight and being sedentary can all result in lower HDL cholesterol.

LDL (BAD) CHOLESTEROL Low LDL cholesterol level is considered good for your heart health. However, your LDL number should no longer be the main factor in guiding treatment to prevent heart attack and stroke, according to new guidelines from the American Heart Association. For patients taking statins, the guidelines say they no longer need to get LDL cholesterol levels down to a specific target number. A diet high in saturated and trans fats raises LDL cholesterol.

VITAMIN D, TOTAL Vitamin D is essential for bone strength as it helps in calcium absorption from diet. Traditionally, vitamin D deficiency has been known to cause rickets disease, but several studies have indicated that low vitamin D levels have also been associated with higher risk of cardiovascular disease, cognitive impairment in older adults, asthma in children and cancer. Adequate levels of vitamin D could play a role in the prevention and treatment of a number of different conditions, including type 1 and type 2 diabetes, hypertension, glucose intolerance, and multiple sclerosis.

ARSENIC - naturally occurring non-toxic organic arsenic compounds, including arsenobetaine, arsenocholine, and arsenosugars, are found in high levels in fish, shellfish, and seaweed. Toxic inorganic arsenic compounds are known to occur naturally in rocks and soil; synthetically in preserved wood, insecticides, herbicides, glass manufacturing, smelting, semiconductors, circuits, and laser technology. The most important exposures occur in areas with high levels of inorganic arsenic in groundwater, and thus by contamination of drinking and crop irrigation water. Inorganic arsenic exposure occurs most frequently through ingestion and inhalation. After absorption, arsenic is mainly distributed to the kidneys and liver and can accumulate in skin, hair, and nails. Arsenic is cleared rapidly from the blood, not significantly stored in internal organs, and excreted by the kidneys. Therefore, urine testing is the best means of assessing any kind of arsenic exposure. Most arsenic is eliminated within 96 h after the last exposure. Acute exposure to arsenic could cause symptoms such as severe abdominal pain, nausea or vomiting, bloody diarrhea, headache, weakness, shock, hypotension, congestive heart failure etc. A level of >75 µg/g creatinine of arsenic represents a potentially toxic value. However, the test results are frequently confounded by the presence of nontoxic organic arsenic compounds from seafood. Any seafood ingested within a week of the laboratory test will cause a false positive result. High urinary arsenic levels should be confirmed by retesting after eliminating any and all seafood one week before taking the test.

BROMINE is known to have no essential function for the human body. However, an excess of bromine can inhibit iodine utilization creating a state of iodine deficiency. When bromine binds to iodine receptors in the thyroid gland, it disrupts its normal physiological functioning. Exposure of bromine occurs via medications, food treated with pesticides, water purifiers and fire-retardant agents. Bromine can cause dullness, difficulties to concentrate, depression, headaches and irritability. Bromine is mostly excreted through urine.

CADMIUM is extremely hazardous to human health and classified as a group I carcinogen by the World Health Organization's International Agency for Research on Cancer. Cadmium is found in the environment from a variety of anthropogenic sources: wastewater, industrial air emission and widespread use of fertilizers on agricultural soils. Dietary intake is the major exposure of this

toxic element for non-smokers through crops grown in contaminated soils. Inhalation from smoking tobacco, industrial activities (fossil fuel combustion, waste incineration) and occupational exposure (smelting, manufacturing) also represents significant exposures. Once inside the body, cadmium binds to albumin and metallothionein in the circulation and is filtered by the kidneys where it bioaccumulates, making kidneys the target organ impacted by chronic exposure. Cadmium has other negative effects on human health, such as damage of thyroid tissues and infertility in both men and women through a variety of mechanisms. Urinary cadmium is a good measure of long-term exposure of this compound and body burden. Urinary cadmium correlates with tissue levels in kidneys, and total T4, total T3, free T3 and thyroglobulin.

CREATININE is a chemical waste product that's produced by muscle metabolism. Kidneys that are healthy filter creatinine and other waste products from the blood. The filtered waste products leave the body through urination. There are many potential causes of high creatinine, some of which may be a one time occurrence. Examples of one-time occurrences may include dehydration or intake of large amounts of protein or a creatine supplement. However, other causes of high creatinine may be related to an underlying health condition that may impact kidney function. Some of these conditions include: drug toxicity, kidney infection, diabetes, high blood pressure, heart disease, or kidney failure.

IODINE is an essential component of the thyroid hormones T3 and T4. Effects of iodine deficiency include pregnancy complications, goiter, compromised thyroid hormone production, mental impairment and decreased cognitive function. Developing fetus and small children are especially at risk from iodine deficiency: iodine deficiency causes mental delays due to the inadequate thyroid hormone delivery to the developing brain. An excess of iodine also leads to thyroid deficiency. Iodine is consumed through dairy products, seafood, iodized salt and grains. Since 90% of dietary iodine is eliminated in urine within 24-48 hours, recent iodine uptake is accurately measured via urinary analysis, allowing iodine levels to be corrected if necessary.

LITHIUM is found throughout the atmosphere, with significant amounts in sea water, mineral springs and soils. Every organ and tissue in the human body contains lithium with particular importance in brain health. In very small amounts lithium is known to be helpful in good mental health. Lithium is typically used in the treatment of bipolar disorder. Possible side effects of excessive lithium include increased thirst, frequent urination, nausea, diarrhea, weight gain, swelling, hair loss. Organs most effected by lithium toxicity include kidneys and thyroid. Lithium deficiency could be associated with symptoms such as anger, irritability, low mood, depression, bipolar disorder, cognitive decline, substance abuse, eating disorders, mood or brain problems.

MAGNESIUM is the fourth most common essential element in the human body after calcium, potassium and sodium. It is required for a multitude of enzymatic reactions, participating in the metabolism of glucids, lipids, proteins and nucleic acids, and particularly in all the reactions involving the formation and use of adenosine triphosphate, an organic chemical that provides energy to drive many processes in living cells. Around 40% of the total body magnesium is intracellular, while the remaining 60% is in bones and teeth. It is estimated that approximately two third of Americans have magnesium intake below the recommended amount; decreased of magnesium intake have also been observed in other countries. This intake decrease has been attributed to several factors including the drop of grain product consumption, agricultural techniques of accelerated growth, use of magnesium-poor soil fertilizers, use of pesticides, refining of food and boiling vegetables. Magnesium deficiency results in several cellular alterations like mitochondrial disorders, muscle weakness, cramping, fatigue, neurological and cardiovascular dysfunctions, reduced bone mineralization and strength. About one third of dietary magnesium is eliminated in urine on average; patients with magnesium deficiency excrete smaller amounts of magnesium in urine.

MERCURY is one of the most toxic heavy metals in the environment. Populations are primarily exposed to mercury via food, but also dental amalgam still used in some countries. The toxicity of mercury depends on its chemical form, either it is elemental, inorganic or organic. These forms are widely present in water sources like lakes, oceans and rivers where they are absorbed and transformed into methyl mercury by microorganisms. Microorganisms are then consumed by marine animals, the major source of human exposure through dietary ingestion. Methyl mercury is lipophilic; the higher concentrations are found in old fatty predatory fish species such as tuna, halibut and redfish. Methyl mercury is a well-known potent neurotoxin which causes adverse impacts on the developing human brain. Exposure during pregnancy is of a great concern for the fetus since this compound passes readily through the placental barrier and blood-brain barrier. Children born of exposed parents experience severe disturbance of nervous functions and developmental delays. The brain being the main target, methyl mercury is also considered to be potentially cancerogenic, can cause impairment on any organ and lead to malfunctioning of nerves, kidneys and muscles.

SELENIUM is an important mineral, which plays a significant role in processes like thyroid hormone metabolism, reproduction, DNA synthesis, and protection from infection. Selenium deficiency has been associated with symptoms such as fatigue, muscle weakness, mental fog, hair loss, weakened immune system. Urinary selenium concentrations are used as an indicator of selenium status. A strong correlation has been established between dietary selenium and daily urinary selenium excretion in a wide range of populations from all over the world with different dietary selenium intake. Selenium excretion rates of 20-200 micrograms/day are not associated with deficiency or toxicity problems. Urinary Se excretion is decreased in children, elderly people, and pregnant women.

ZINC is an essential element and has an important role in wound healing, metabolism at the cellular level, immune system and DNA

and protein synthesis. High zinc levels can result in symptoms such as nausea, dizziness, vomiting, fatigue, muscle pain, fever and headache. Zinc deficiency can lead to impaired wound healing, skin lesions, delayed growth, seizures, impaired immune function, diarrhea, unexplained weight loss. Zinc deficiency could be caused partly by excess loss of zinc in urine, sickle cell anemia, alcoholism, diabetes or chronic renal diseases. Zinc deficiency is rare in the United States but still happens in a few people. This condition can be reversed through dietary changes and supplements.

About your test results

Laboratory tests performed by myLAB Box clinical laboratory affiliates on at-home self-collection kits deliver highly accurate results that are as good as testing done in a doctor's office or clinical laboratory.

Positive means the test detected levels of the agent being tested for. Positive results are sometimes reported as "detected."

Negative means the test did not detect levels of the agent being tested for. Negative results are sometimes reported as "not detected."

Retesting may sometimes be required or recommended. Positive test results for syphilis and hepatitis C infection require repeat testing by a different method to confirm the diagnosis. This confirmatory test should be performed at your primary care physician or local health department.

Any unexpected positive or negative test results should be repeated. A false-negative result may occur if there is a problem with the sample that is collected or if a person is taking antibiotics at the time of testing. In addition, a false-negative result is possible if testing is performed too soon after exposure during the "window period." This is the time between when a person is exposed to a sexually-transmitted infection (STI) and when the infection shows up on a test. If the sample that is tested does not have enough antibodies or organisms to detect an infection, the test result will be negative. For these reasons, repeat testing is recommended within 1-3 months after getting a negative test result following a high-risk exposure.

Understanding results that are not positive or negative

myLAB Box clinical laboratory affiliates use the most sensitive and specific testing methods available to analyze test samples. In some cases, however, testing might not provide clear or valid results.

Equivocal means the test result is neither positive nor negative. This can mean that the test result was too close to the validated cut-off for the assay. This may happen if there is a problem with the sample that is collected or if a person is taking antibiotics or other medicines at the time of testing. An equivocal result may also be due to a slightly increased "false positive" signal or having too low a concentration of the infectious organism or antibody to be accurately detected by this test. An equivocal result does not imply a positive result or conclusive identification of any infectious organism or antibody. Please consult with your medical provider to determine if retesting or confirmatory testing is needed. To retest with the convenience of the myLAB Box at-home self-collection kit, enjoy a courtesy discount with code MYLABBOX1025 for 25% off your test.

Indeterminate means the results of repeat testing are not conclusive. This may happen if there is a problem with the sample that is collected or if a person is taking antibiotics or other medicines at the time of testing. An indeterminate result may also be due to a slightly increased "false positive" signal or having too low a concentration of the infectious organism or antibody to be accurately detected by this test. An indeterminate result does not imply a positive result or conclusive identification of any infectious organism or antibody. Please consult with your medical provider to determine if retesting or confirmatory testing is needed. To retest with the convenience of the myLAB Box at-home self-collection kit, enjoy a courtesy discount with code MYLABBOX1025 for 25% off your test.

Invalid means repeat testing has failed to provide a result. This may happen if the substance being analyzed (e.g., a protein, chemical substance, or DNA) is at too low a concentration to be accurately detected by this test. An invalid result may also be due to a problem with the sample that is collected, interfering substances such as medications, or an excessive amount of foreign matter in the sample (e.g., fecal matter, blood, or food debris). Retesting with a new sample is recommended. To retest with the convenience of the myLAB Box at-home self-collection kit, enjoy a courtesy discount with code MYLABBOX1025 for 25% off your test.

Disclaimer

Tests used in myLAB Box kits have been developed by myLAB Box clinical laboratory affiliates, who determine precise performance characteristics for each test. These performance characteristics help ensure the consistency and accuracy of test results. Tests have

Customer Testing Report

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not been approved by the US Food and Drug Administration (FDA), although individual components of some tests performed in the laboratory are FDA-cleared. The FDA has determined that such clearance or approval is not necessary for laboratory-developed tests such as those offered by my LAB Box. These tests are used for clinical purposes and should not be regarded as investigational or for research. myLAB Box clinical laboratory affiliates follow the rigorous accreditation guidelines of the College of American Pathologists (CAP) and are certified by the Clinical Laboratory Improvement Act (CLIA) of 1988 as qualified to perform high-complexity clinical testing.