

Women's Blood Work Guide for Optimal Health Testing & Planning



Joe Miller
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1st Optimal

Feeling tired, foggy, bloated, or off... even though your doctor says your labs are “normal”?

You're not alone.

Most women are told their symptoms are “in their head” or “just part of getting older.”

But here's the truth: normal isn't the same as optimal.

At 1st Optimal, we use advanced blood work to uncover what's really happening beneath the surface from hormones and inflammation to thyroid, adrenal health, and nutrient status.

Whether you're struggling with fatigue, cycle changes, brain fog, bloating, or just want to stay ahead of perimenopause and aging, blood testing is one of the most powerful tools available.

 Our 3 Panel Options::

Each of our women's lab panels includes a clinician-led review at no extra cost. We walk you through each marker, explain what it means in plain English, and help you understand why you feel the way you do and what to do next.

- [Baseline Hormone Health Panel](#)
- [Hormone Health Panel](#)
- [Comprehensive Hormone Health Panel](#)



1. Women's Hormone Health Panel

Perfect for women seeking a foundational view of hormone health, especially if you're just starting to explore fatigue, mood changes, stubborn weight, or menstrual irregularities.

Included Blood Markers & Why They Matter:

- Estradiol (E2): Estrogen that supports brain, bone, skin, and cycle function
 - → Too low = fatigue, hot flashes, dryness, mood swings
- Progesterone: Balances estrogen, supports mood and sleep
 - → Low levels = anxiety, irregular cycles, poor sleep
- Testosterone (Total + Free): Vital for energy, libido, strength, and metabolism
 - → Low levels = fatigue, weight gain, low sex drive
- Sex Hormone Binding Globulin (SHBG): A protein that regulates hormone availability
 - → High SHBG = bound hormones = lower free hormone activity
- Albumin: Important for calculating free hormone levels and evaluating liver health
- Comprehensive Metabolic Panel (CMP): Checks liver, kidney, glucose, and electrolyte function
 - → Foundational before any treatment or optimization
- Lipid Panel: Cholesterol and triglyceride assessment
 - → Heart health is hormone-dependent, especially post-35



Sex Hormone Binding Globulin (SHBG)

- Definition: A protein that binds to testosterone and regulates its availability.
- Why it matters: High SHBG can lower free testosterone levels, even if total testosterone looks normal.

Albumin

- Definition: A blood protein that helps maintain blood volume and also binds hormones.
- Why it matters: Important for calculating free testosterone and evaluating liver function.

Comprehensive Metabolic Panel (CMP)

- Definition: A snapshot of liver and kidney function, glucose, and electrolyte balance.
- Why it matters: Ensures foundational health is intact before starting any therapy.

Lipid Panel

- Definition: Measures cholesterol and triglycerides.
- Why it matters: Tracks cardiovascular risk, especially when optimizing hormones.



Order the Male Baseline Hormone Health Panel here:

<https://shop.1stoptimal.com/products/male-basic-hormone-health-panel>



2. Female Hormone Health Panel

This advanced panel includes everything in the baseline panel and adds thyroid, adrenal, and blood sugar markers ideal for women experiencing fatigue, midlife weight changes, low mood, and menstrual shifts.

Also Includes:

- DHEA-S: A foundational adrenal hormone
- → Low = poor stress tolerance, fatigue, reduced libido
- TSH (Thyroid Stimulating Hormone): Regulates thyroid hormone production
- → Elevated = thyroid sluggishness
- Free T3 + Free T4: Active thyroid hormones critical for metabolism
- → Low levels = weight gain, fatigue, hair thinning
- Hemoglobin A1C: 3-month average of blood sugar
- → Insight into insulin resistance and metabolic dysfunction
- hs-CRP (High-Sensitivity C-Reactive Protein): Inflammation marker
- → High levels = elevated disease and aging risk



2. Female Hormone Health Panel Cont....

TSH (Thyroid Stimulating Hormone)

- Definition: The master hormone that tells your thyroid to produce metabolism-regulating hormones.
- Why it matters: Fatigue, weight gain, or cold sensitivity may point to thyroid imbalance.
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Hemoglobin A1C

- Definition: A 3-month average of blood sugar levels.
- Why it matters: Early insight into prediabetes, insulin resistance, and metabolic health.
-

hs-CRP (High-Sensitivity C-Reactive Protein)

- Definition: A marker of systemic inflammation.
- Why it matters: Elevated levels increase the risk of cardiovascular disease and poor recovery.

 **Order the Female Hormone Health Panel here:**

Women's Hormone Health Panel Options



3. Female Comprehensive Hormone Panel

The most in-depth panel 1st Optimal offers, designed for performance-focused men who want a complete look at their hormone, thyroid, metabolic, cardiovascular, and inflammatory markers. Perfect for advanced tracking or pre-therapy screening.

Includes everything from the Basic and Hormone Panels, plus:

IGF-1 (Insulin-Like Growth Factor 1)

- Definition: A marker used to estimate growth hormone levels.
- Why it matters: Supports muscle repair, fat metabolism, and skin health. Low levels contribute to fatigue and aging signs.

Prolactin

- Definition: A hormone that regulates sexual desire and fertility.
- Why it matters: High levels can suppress testosterone and libido.

Reverse T3

- Definition: An inactive thyroid hormone that blocks active thyroid function.
- Why it matters: Helps identify stress-related thyroid suppression and poor energy metabolism.

Free T3 and Free T4

- Definition: The active and storage forms of thyroid hormone.
- Why it matters: Essential for mood, metabolism, energy, and weight management.



3. Female Comprehensive Hormone Panel Cont...

Testosterone

- **Total Testosterone (LC/MS):** A measurement of the total amount of testosterone in the blood, including both bound and free testosterone. LC/MS (Liquid Chromatography-Mass Spectrometry) is an advanced technique for precise measurement.
- **Free Testosterone (Equilibrium Ultrafiltration):** This test measures the fraction of testosterone that is unbound and biologically active, offering insight into the hormone's availability for tissue action.

Estrogens

- **Estradiol, Sensitive / Ultrasensitive (LC/MS):** Estradiol is the most potent estrogen hormone, crucial for regulating the female reproductive system, bone health, and cardiovascular function. The sensitive test allows for accurate measurements even at low levels, especially in perimenopausal or postmenopausal women.

Sex Hormone Binding Globulin (SHBG)

- SHBG is a protein that binds to sex hormones like testosterone and estradiol. It regulates the amount of free, active hormones available for tissue interaction. Abnormal levels may indicate hormonal imbalances or underlying health conditions.

Progesterone

- Progesterone is essential for regulating the menstrual cycle, supporting pregnancy, and balancing the effects of estrogen. It can be tested at different times in the cycle to assess ovulation and luteal phase health.



3. Female Comprehensive Hormone Panel Cont...

Prolactin

- Prolactin is a hormone primarily associated with milk production. High levels outside of pregnancy or breastfeeding can suggest hormonal imbalances or conditions like pituitary disorders.

Cortisol

- Cortisol is a stress hormone that helps regulate metabolism, immune function, and stress responses. Chronic high or low levels may indicate issues with the adrenal glands, such as adrenal fatigue or stress-related disorders.

Gonadotropins

- Luteinizing Hormone (LH): Plays a role in regulating the menstrual cycle and ovulation. Elevated or low levels can provide insight into ovulatory function and hormonal balance.
- Follicle-Stimulating Hormone (FSH): Works alongside LH to regulate the menstrual cycle and stimulate ovarian follicles. Testing can help diagnose issues related to fertility or menopause.

Neurosteroids

Dehydroepiandrosterone Sulfate (DHEA-S): DHEA is a precursor to both estrogen and testosterone. Its levels fluctuate with age, and it plays a role in mood, energy levels, and immune function.



3. Female Comprehensive Hormone Panel Cont...

Thyroid Function

- TSH (Thyroid Stimulating Hormone): TSH is a hormone produced by the pituitary gland to stimulate the thyroid to produce thyroid hormones. It is often the first test to assess thyroid function.
- Free T3 (Triiodothyronine): The active form of thyroid hormone that affects metabolism and energy production.
- Free T4 (Thyroxine): The precursor to T3, Free T4 is converted into T3 in the body. Both T3 and T4 levels are essential for evaluating thyroid health.

Insulin-Like Growth Factor I (IGF-1)

- IGF-1 is involved in growth and development, particularly in muscle and bone health. It's often used to evaluate growth hormone function and to monitor anabolic processes in the body.

Lipid Panel

- The lipid panel measures cholesterol and triglyceride levels, which are key indicators of cardiovascular health.
 - ApoB: A protein involved in lipid metabolism, high levels can increase cardiovascular risk.
 - Lipoprotein (a): A type of LDL cholesterol linked to a higher risk of cardiovascular disease, particularly for women.

Blood Health

- Ferritin: This is a protein that stores iron, and its levels reflect the body's iron stores. Low ferritin levels can indicate iron deficiency or anemia.
- HbA1c: Hemoglobin A1c provides an average of blood sugar levels over the past 2-3 months, helping assess diabetes risk and management.



3. Female Comprehensive Hormone Panel Cont...

Complete Blood Count w/ Differential

- This test evaluates the number and types of cells in the blood, including red blood cells, white blood cells, and platelets. It helps detect a variety of conditions, from anemia to infections.

Metabolic Panel

- The metabolic panel assesses various substances in the blood like glucose, calcium, and electrolytes. It helps evaluate kidney function, blood sugar levels, and overall metabolic health.

Insulin Sensitivity

- Fasting Insulin: A measurement of insulin levels after fasting, this helps assess how well the body is responding to insulin, a key indicator of metabolic health and insulin resistance.

Liver Function

γ-Glutamyl Transferase (GGT): GGT is an enzyme found in the liver that helps evaluate liver function. Elevated levels can indicate liver damage, bile duct problems, or alcohol abuse.

Kidney Function

Kidney function is assessed through a variety of markers, helping detect issues such as kidney disease, dehydration, or poor metabolic function.

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Vitamin D (25-Hydroxy)

- Definition: A fat-soluble vitamin that acts more like a hormone.
- Why it matters: Deficiency is common and linked to fatigue, mood disorders, low testosterone, and immune dysfunction.

CBC (Complete Blood Count)

- Definition: Evaluates red and white blood cells, hemoglobin, and platelets.
- Why it matters: Screens for anemia, immune health, and blood oxygen capacity important for endurance and recovery.

 **Order the Male Comprehensive Hormone Panel here:**

<https://shop.1stoptimal.com/products/male-comprehensive-hormone-panel>

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Optimal Isn't Optional It's the New Standard

If you've ever felt dismissed, misunderstood, or confused by lab work that didn't explain your symptoms, you're not alone. Most reference ranges are built on averages not on what's ideal for a healthy, driven, high-performing man.

At 1st Optimal, we aim higher. Our philosophy is simple:

- Don't just detect dysfunction optimize before decline
- Track what matters most: hormones, metabolism, recovery, inflammation, and thyroid function
- Interpret labs through a precision lens to support your long-term goals

Choosing the right panel is just the beginning. Our process ensures you walk away with insight, not overwhelm. You'll understand what each number means, how it connects to your symptoms or goals, and what steps you can take next.

And remember: your labs don't define you, they inform you. Start with clarity. Leave with a strategy. That's what optimal care looks like.

Explore your panel options at shop.1stoptimal.com, or reach out to our team to learn which panel is right for you.

Additional Links And Resources



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Free Virtual Consultation with a Health Expert

- [LINK: https://1stoptimal.com/book-a-call](https://1stoptimal.com/book-a-call)

Product Links:

- [Baseline Hormone Health Panel](#)
- [Hormone Health Panel](#)
- [Comprehensive Hormone Health Panel](#)

Helpful Educational Articles:

- [Creatine use for Women](#)
- [WHI-study-hormone-therapy_](#)
- [The Truth about Women's Hormone Health](#)

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