

Women's Hormone Lab Guide

Understanding estrogen, progesterone, cortisol, thyroid, and more

KEY HORMONES & WHAT THEY DO

- Estradiol (E2): Main active estrogen. Supports bone density, heart health, mood, skin, and reproductive function. Declines significantly in perimenopause.
- Progesterone: Balances estrogen; supports sleep, mood, and uterine health.
- Testosterone (total & free): Affects libido, energy, muscle mass, and mood.
- DHEA-S: Adrenal hormone. Precursor to estrogen and testosterone.
- Cortisol: Stress hormone. Chronic elevation disrupts sleep, metabolism, and immunity.
- FSH & LH: Pituitary hormones that regulate ovarian function.

HORMONE REFERENCE RANGES (WOMEN)

- Estradiol: varies by cycle phase
Follicular phase: 19–144 pg/mL | Ovulation: 64–357 pg/mL
Luteal phase: 56–214 pg/mL | Postmenopause: <18 pg/mL
- Progesterone: <1 ng/mL (follicular/postmeno) | 5–20 ng/mL (luteal)
- Total Testosterone: 8–60 ng/dL (varies by lab)
- DHEA-S: 35–430 mcg/dL (declines with age)
- FSH: 3.5–12.5 IU/L (follicular) | >25 IU/L may suggest perimenopause
- Cortisol (AM): 6–23 mcg/dL

PERIMENOPAUSE & MENOPAUSE LABS

- FSH >25 IU/L on two tests 4+ weeks apart can indicate perimenopause
- Estradiol <20 pg/mL often associated with menopausal symptoms
- LH/FSH ratio shifts as ovarian reserve declines
- Always test on Day 2–3 of cycle for most accurate hormone baseline
- AMH (anti-Müllerian hormone) reflects ovarian reserve
- Don't rely on a single result — hormone levels fluctuate widely

THYROID & HORMONES TOGETHER

- Thyroid dysfunction can mimic hormone imbalance symptoms
- Always test TSH when investigating fatigue, weight gain, or mood changes
- Low thyroid can suppress sex hormone binding globulin (SHBG)
- Free testosterone may appear different depending on SHBG levels
- Treat thyroid first — it can resolve many 'hormone' symptoms on its own

SYMPTOMS BY HORMONE

- Low estrogen: hot flashes, night sweats, vaginal dryness, brain fog, bone loss
- Low progesterone: irregular cycles, poor sleep, anxiety, heavy periods
- Low testosterone: low libido, fatigue, muscle weakness, mood changes
- High cortisol: weight gain (esp. abdomen), sleep issues, blood sugar swings
- Low DHEA: fatigue, low libido, mood changes, reduced stamina

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QUESTIONS TO ASK YOUR DOCTOR

- Which hormones should I test, and what cycle day is best?
- Are my symptoms related to hormones, thyroid, or both?
- What is my estrogen-progesterone balance telling you?
- Should I consider hormone replacement therapy (HRT)?
- How often should I retest during perimenopause?