



Comprehensive HRT Panel

MDL Test Number: 695, Tests Included: 11

Specimen Requirements:

Specimen	Collection Platform	Stability	Turnaround Time
Serum	2 Serum Separator Tube (SST)	Room Temperature	24 – 72 hrs.

Special Handling and Timing

This panel is drawn into serum separator tubes, but several of its tests place requirements on how and when they are collected. taken.

- **The day of the cycle should be recorded.** Several hormones in this panel are interpreted against where the patient is in her cycle, and are best drawn in the first few days of it, counting the first day of bleeding as day 1. If periods are irregular or absent, the request should say so rather than leave a cycle day to be assumed.
- **A morning draw is preferred.** Testosterone is highest in the morning and falls throughout the day, and prolactin rises with sleep, stress, and the draw itself. The time of collection should be recorded on the request.

What is the Comprehensive HRT Panel?

This is the shorter of MDL's two hormone replacement panels. Where the HRT panel also covers thyroid, nutritional, and cardiovascular markers, this one is confined to the hormones themselves.

It measures the estrogens that treatment supplies, progesterone, the androgens, and the carrier protein that determines how much of each is available to the body. Because oral estrogen raises that carrier protein substantially, a total androgen result can change while the amount actually available does not; the panel therefore reports the calculated free values alongside it.

It is intended for monitoring a woman already established on treatment, where the broader questions have already been answered, and what is needed is the hormonal picture on the current regimen.

Why order the HRT Hormonal Panel?

It is commonly used to:

- Monitor a woman established on hormone replacement therapy, on a regimen that is not being changed for other reasons.
- Check absorption where symptoms persist despite treatment, particularly with a patch, gel, or implant.
- Assess the androgen picture on treatment, using the calculated free values rather than a total testosterone alone.
- Support a dose adjustment or a decision about continuing treatment with the hormonal picture on the current regimen.
- Re-establish the hormonal picture after a change of preparation.

Special Instructions

- **Hormonal contraception and hormone treatment:** Combined pills, patches, rings, hormonal intrauterine devices, and menopausal hormone therapy change several of these results. Current or recently stopped treatment, and what form it takes, should be listed on the request.
- **Biotin supplements:** Biotin is sold on its own and is present in many hair, skin, and nail products, often at high doses. Several tests in this panel can be affected, and the most sensitive of them was tested by its manufacturer only up to a level that a high-dose supplement can exceed. Patients should tell the ordering provider what they take and at what dose.
- **Medicines and recent illness:** Steroids, some psychiatric medicines, and any recent significant illness can affect these results. A current medication list should accompany the request.



Which tests are included in this panel?

Each test below is also available individually, and a separate fact sheet for each one gives its reference ranges, limitations, and the conditions it is used to assess.

Free testosterone and the free androgen index, where included, are calculated from the total testosterone and SHBG results already in this panel. They are not separately charged.

Test No.	Analyte	CPT Code	Method
610	Follicle-Stimulating Hormone (FSH)	83001	Immunoassay
611	Estradiol (E2)	82670	Immunoassay
614	Luteinizing Hormone (LH)	83002	Immunoassay
619	Estriol, Unconjugated (uE3)	82677	Immunoassay
622	Testosterone, Total	84403	Immunoassay
630	Progesterone	84144	Immunoassay
631	DHEA-Sulfate (DHEA-S)	82627	Immunoassay
639	Sex Hormone-Binding Globulin (SHBG)	84270	Immunoassay
653	Anti-Müllerian Hormone (AMH)	82166	Immunoassay
685	Free Testosterone	—	Calculated
696	Free Androgen Index (FAI)	—	Calculated

Limitations

Every laboratory panel has limits. For this one, the main ones are:

- There is no target hormone level in hormone replacement therapy for most women. Treatment is adjusted principally on symptoms, and results are used to support that judgment rather than to replace it.
- What is measured depends heavily on the preparation used and on when the last dose was taken. Patches, gels, tablets, and implants produce quite different profiles, and the request should record which is in use.
- Each result is a snapshot of one moment. Several of these hormones change substantially across the menstrual cycle and through the day, so a single set of results should be interpreted against when the sample was taken.
- Results are interpreted against the reference range printed on the report for each individual test. Those ranges differ by age and, for several of these tests, by where the patient is in her cycle.
- These results are one piece of a larger picture. They are meant to be read together with the patient's symptoms, medical history, and examination — never on their own.

What are some references that discuss the medical necessity of this panel?

1. The NAMS 2022 Hormone Therapy Position Statement Advisory Panel. The 2022 hormone therapy position statement of The North American Menopause Society. *Menopause* **29**, 767–794 (2022).
2. Panay, N. et al. Evidence-based guideline: premature ovarian insufficiency. *Hum. Reprod. Open* **2024**, hoae065 (2024).
3. Harlow, S. D. et al. Executive summary of the Stages of Reproductive Aging Workshop +10: addressing the unfinished agenda of staging reproductive aging. *J. Clin. Endocrinol. Metab.* **97**, 1159–1168 (2012).
4. Krassas, G. E. et al. Thyroid function and human reproductive health. *Endocr. Rev.* **31**, 702–755 (2010).
5. Devalia, V. et al. Guidelines for the diagnosis and treatment of cobalamin and folate disorders. *Br. J. Haematol.* **166**, 496–513 (2014).

