



PATIENT: XXXXXXXXXXXXXXXXXXXX

TEST REF: TST-NL-XXXX

TEST NUMBER: T-NL-XXXXX (XXXXXXXXXX)

COLLECTED: XX/XX/XXXX

PRACTITIONER:

GENDER: XYZ

RECEIVED: XX/XX/XXXX

XXXXXXXXXXXXXXXXXX

AGE: XX

TESTED: XX/XX/XXXX

XXXXXXXXXXXXXXXXXXXXXXXX

TEST NAME: Female Blood Profile I (E2, Pg, T, DS, C & SHBG)

TEST NAME	RESULTS 08/28/21	RANGE
Blood Spot Steroids (LC-MS/MS) & Other Analytes		
Estradiol	137	51-302 pg/mL Premeno-luteal
Progesterone	11.8	4.3-25.3 ng/mL Premeno-luteal
Ratio: Pg/E2	86 L	Pg/E2 (bloodspot-optimal 100-500)
Testosterone	27	18-39 ng/dL Premeno-luteal
SHBG	55	15-120 nmol/L
DHEAS	203	17-207 µg/dL
Cortisol	12.6	9.1-19.6 µg/dL (morning), 3.3-8.9 (eve/night)

<dl = Less than the detectable limit of the lab. N/A = Not applicable; 1 or more values used in this calculation is less than the detectable limit. H = High. L = Low.

Therapies

None Indicated



PATIENT: XXXXXXXXXXXXXXXXXXXX

TEST REF: TST-NL-XXXX

TEST NUMBER: T-NL-XXXXX (XXXXXXXXXX)

COLLECTED: XX/XX/XXXX

PRACTITIONER:

GENDER: XYZ

RECEIVED: XX/XX/XXXX

XXXXXXXXXXXXXXXXXX

AGE: XX

TESTED: XX/XX/XXXX

XXXXXXXXXXXXXXXXXXXXXXXX

TEST NAME: Female Blood Profile I (E2, Pg, T, DS, C & SHBG)

TEST REPORT | Reference Ranges

Disclaimer: Supplement type and dosage are for informational purposes only and are not recommendations for treatment.

TEST NAME	WOMEN
Blood Spot Steroids (LC-MS/MS) & Other Analytes	
Estradiol	<10-26 pg/mL Postmeno or Premeno + Synthetic E; 32-472 pg/mL Pre/Postmeno ERT; 51-302 pg/mL Premeno-luteal; 30-92 pg/mL Early Follicular
Progesterone	<0.1-0.9 ng/mL Postmeno, Premeno-Follicular or Premeno + Syn P; 0.5-4.3 ng/mL Oral (100-300mg); 5.2-65.3 ng/mL Topical (10-30mg); 4.3-25.3 ng/mL Premeno-luteal
Ratio: Pg/E2	Pg/E2 (bloodspot-optimal 100-500)
Testosterone	13-38 ng/dL Postmeno or Premeno + Synthetic E; 29-224 ng/dL Pre/PostMenopausal TRT; 18-39 ng/dL Premeno-luteal
SHBG	15-120 nmol/L
DHEAS	17-207 µg/dL
Cortisol	9.1-19.6 µg/dL (morning), 3.3-8.9 (eve/night); 3.3-8.9 µg/dL (eve/night)

Lab Comments

Estradiol (blood spot) is within mid-normal observed range for a premenopausal woman. Estradiol at this level during the luteal phase of the menstrual cycle should be well balanced with progesterone (ideal progesterone/estradiol ratio 100-500).

Progesterone (blood spot) is within optimal range for a premenopausal woman during the luteal phase of the menstrual cycle. Progesterone should be well balanced with estradiol (optimal Pg/E2 ratio 100-500, when estradiol is within range). If symptoms of estrogen excess (dominance) remain problematic and/or the Pg/E2 ratio is low consider lowering the estrogen burden with improved diet (less red meat and more vegetables with color, gentle exercise, stress reduction, etc.)

Testosterone is within reference range for a premenopausal woman; however, self-reported symptoms indicate excess exposure to androgens. Normal testosterone levels with high androgen symptoms is common in women with lower than expected levels of estradiol and progesterone caused by anovulation or irregular menstrual cycles. Both estrogens and progesterone counter the side effects of excessive androgens (acne, loss of scalp hair, increased facial/body hair, oily skin, aggressive behavior) and when these natural anti-androgens are low the effects of even normal levels of testosterone are more pronounced.

SHBG is within normal range. The SHBG level is a relative index of overall exposure to all forms of estrogens (endogenous, pharmaceutical, xeno-estrogens). As the estrogen levels increase in the bloodstream there is a proportional increase in hepatic production of SHBG. Thyroid hormone and insulin also play a role in regulating hepatic SHBG synthesis. Thyroid hormone synergizes with estrogen to increase SHBG production while insulin, in excess (caused by insulin resistance) decreases SHBG synthesis. Thus, in individuals with thyroid deficiency and insulin resistance the SHBG level is usually low. SHBG is an important estradiol and testosterone binding globulin that help increase the half life of these hormones in the bloodstream, and also limit their bioavailability to target tissues. SHBG binds tightly to testosterone and its more potent metabolite dihydrotestosterone (DHT). It also binds tightly to estradiol, the most potent of the endogenous estrogens, but about 5 times weaker than to testosterone and DHT. Thus an increase in SHBG results in proportionately less bioavailable testosterone than estradiol.

DHEAS (blood spot) is within high-normal range. DHEAS is highest during the late teens to early twenties and then declines progressively with age to the lower levels of the range in healthy men and women. DHEAS is expected to be within the lower range in older individuals. Higher DHEAS levels in individuals older than 40 is usually associated with DHEA supplementation, but is not uncommon in well trained athletes. High DHEAS can be associated with symptoms of androgen excess (e.g. loss of scalp hair, increased facial/body hair, acne).

Morning cortisol (blood spot) is within mid-range. If symptoms of adrenal imbalance are problematic consider testing cortisol in saliva 4x throughout the day to determine if levels remain within normal range. If salivary cortisol levels drop following the morning sample this suggests low adrenal reserve and need for adrenal support.