Female Hormone Panel™

Saliva Testing for Bio-Identical Hormone Treatment

DIAGNOS-TECHS, INC.
diagnostechs.com

The Female Hormone Panels™

The Female Hormone Panel™ (FHP™) is a dynamic mapping of the free fraction levels of Estradiol (E2) and Progesterone (P) throughout one cycle. The panel also includes a cycle average value for Free Testosterone and DHEA. This panel uses 11 saliva samples collected during specified time slots throughout a menstrual cycle. The expanded panel version includes 5 additional FSH and LH measurements.

Why is the FHP™ used?

The FHP™ is used to identify menstrual cycle deficits and imbalances in progesterone, estrogen, testosterone and DHEA

When is the FHP™ used?

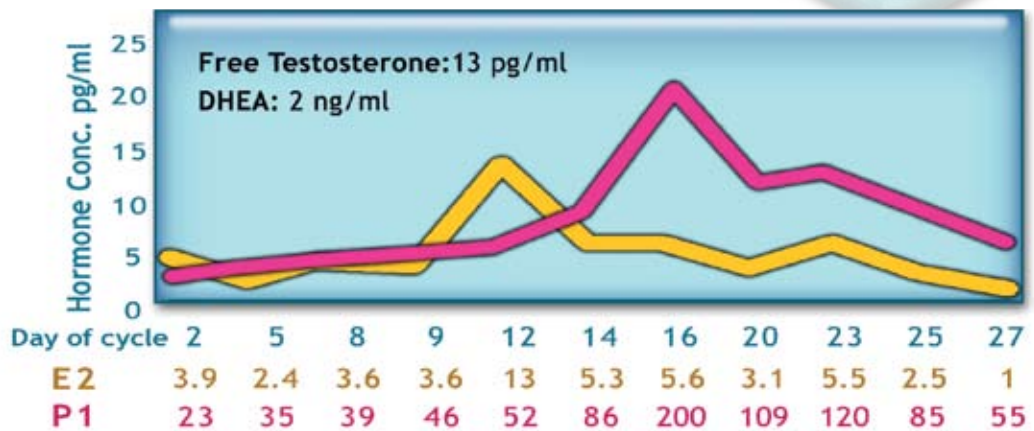
This panel is utilized when you need a profile of the hormone fluctuations in a woman's cycle for test-guided BHRT.

Who should consider having the FHP™ done?

The FHP™ test is most applicable in cycling women with

- Weight gain
- Functional infertility
- Osteoporosis
- Endometriosis and ovarian cysts
- Fibroids and fibrocystic breasts
- Increased risk of breast cancer
- Recurrent cycle related symptoms and irregularities such as PMS, migraines, breast tenderness, emotional and cognitive issues, insomnia, spotting, etc

Representation of Hormone Cycle



Day of cycle	2	5	8	9	12	14	16	20	23	25	27
E2	3.9	2.4	3.6	3.6	13	5.3	5.6	3.1	5.5	2.5	1
P1	23	35	39	46	52	86	200	109	120	85	55

PHYSIOLOGIC ROLES OF HORMONES TESTED

LH and FSH

The pituitary Luteinizing hormone (LH) and Follicle stimulating hormone (FSH) regulate ovarian function.

FSH promotes ovarian estrogen production

LH induces ovulation and progesterone production

In perimenopause, there is a growing scarcity in ovarian follicles. LH and FSH levels show respectively, a 3 and 7-fold increase over values found in young menstruating women.

In peri- and postmenopause, FSH is closely correlated with

- Hot flashes and night sweats
- Bone loss and osteoporosis
- Sleep disturbances

Stress or excessive exercise have an adverse effect on LH and may inhibit ovulation. Stress makes women more estrogenic and less fertile and more prone to proliferative diseases.

Estrogen

Reproductive
- Aids in endometrial growth and proliferation
- Aids in inducing ovulation
- Aids in maintaining vaginal lubrication

CNS
- Neuroprotective
- Neuroexcitatory, motivational and promotes territorial inclinations
- Exacerbates migraine and other headaches

Sexuality
- Estrogen/progesterone balance promotes arousability

Growth
- Increases growth hormone secretion

Bone Health
- Limits bone elongation in adolescents, and prevents bone loss in adults

Glycemic Regulation
- Improves insulin function

Adipose Tissue
- Increases size and number of fat cells

Immune System
- Immune activator and pro-inflammatory; estrogen dominance promotes autoimmunity

Skin
- Maintenance and regeneration

Progesterone

Reproductive
- Matures endometrium in preparation for pregnancy
- Facilitates embryo implantation
- Maintains pregnancy through maintaining endometrial lining and preventing uterine muscle contraction

CNS
- Promotes better sense of dominance, attenuates aggressiveness, and is a sedative
- Promotes neuronal healing (neuroprotective)

Bone Health
- Promotes new bone formation and deposition

Sexuality
- Estrogen/progesterone balance promotes arousability; may play a role in overcoming inhibitions

Breast
- Promotes breast growth and development during pregnancy
- Inhibits lactation during pregnancy

Immunity
- Lowers immune system activity (immunosuppressive)
- Anti-inflammatory

DHEA

Reproductive
- Integrity of vaginal mucus; eases premenstrual symptoms

Sexuality
- Improves well being and sexual arousability

Antiglucocorticoid Hormone
- Opposes catabolic cortisol effects during stress

Breast
- Reduces breast proliferation

Bone Health
- Enhances bone deposition and remodeling

Glycemic Regulation
- Improves insulin sensitivity, increases muscle mass and reduces fat mass

Immune System
- Stimulates immune system activity; reverses stress related immunosuppression

Somatic
- Helps with control of hot flashes and night sweats
- Cardioprotective Reduces the incidence of heart attacks by lowering total and LDL cholesterol

Anticarcinogenic
- In breast, pancreas, colon and ovaries

Testosterone

CNS and Behavioral
- Improves mental faculties including memory and artistic inclinations
- Excess may lead to aggressive pursuit

Sexuality
- Promotes erotic thoughts and orgasms

Breast
- Reverses estrogen-induced breast proliferation; reduces breast tenderness

Bone Health
- Helps reduce bone loss; may have a role in bone formation

Glycemic Regulation
- Improves insulin sensitivity and increases muscle mass

Somatic
- Helps attenuate hot flashes and night sweats

Cardiovascular
- Increases blood flow to tissues and may reduce blood pressure

Immune System
- Immunosuppressor; promotes suppressor T cell dominance

Use these panels to...

Customize BHRT

Presently, hormone therapy is very empirical and a "one-size-fits-all" approach is applied to most women. Due to variability among women, and the natural cyclical changes of hormones, a more frequent sampling is needed for proper hormone quantification. The single sample on day 20-22 of a cycle is less than 50% accurate. The FHP™ panel remedies this shortcoming by using a schedule for 11 samples distributed over a full cycle – start to end.

The Female Hormone Panel™ report includes: 11 Estradiol (E2) and 11 Progesterone (P) measurements, cycle average DHEA and Testosterone, 3 Progesterone production indices, 4 Estradiol production indices, a full cycle P/E ratio graph and an example of a restorative plan.

Assess Risk of Breast and Uterine Diseases

It is universally accepted that there is an increased risk of proliferative diseases in breast and endometrial tissue when estrogen is overly dominant. The FHP™ and the eFHP™ report includes the Follicular Estrogen Priming Index (E ∏) that quantifies the impact of excess estradiol in menstruating women. Recommendations are routinely included in the report.

Please note that certain estrogen metabolites are falsely promoted as risk markers for breast cancer. A recent study which compared 2/16 Hydroxyestrone ratio in women with breast cancer to a control group of cancer-free women, concluded that there is no support for the hypothesis that the ratio of 2/16 hydroxyestrone is an important risk factor for breast cancer.

(J Nat'l Cancer Inst 1999 Jun 16:91(12):1067-72)

Other available test panels:

Perimenopause Panel™

No of Samples: 2 saliva *collected on separate days*

Hormones Tested Twice: Estrone, Estradiol, Estriol DHEA, Testosterone and Progesterone

Indications:

- Perimenopause
- Irregular Cycles
- Pre + Post therapy testing

PostM Panel™ (Postmenopausal)

No of Samples: 1 saliva

Hormones Tested: Estrone, Estradiol, Estriol, Progesterone, Testosterone, and DHEA

Indications:

- Menopause
- Hot flashes and mood swings
- Insomnia

Male Hormone Panel™

No of Samples: 1 saliva

Hormones Tested: DHEA, Androstenedione, Testosterone, DHT, Progesterone and Estrone

Indications:

- Andropause
- Low vitality and libido
- Hair thinning

Brief Biography

Background:

Diagnos-Techs, Inc. USA was founded in 1987. In 1989 we introduced salivary hormone testing into clinical practice. The routine use of salivary assessments became a powerful tool in the clinical evaluation of stress and hormone related diseases in both genders and all age groups.

Quality Control:

Our quality control procedures include daily parameter standardization in accordance with WHO* and other agencies' reference material. This insures continuity of follow up test results over time, and permits precise diagnosis, based on truly standardized and reproducible test values.

Licensure:

Diagnos-Techs laboratory is licensed by the State of Washington (License No. MTS-0327). Our Federal CLIA Number is 50D0630141. Diagnos-Techs laboratory applies rigid standards of quality in day-to-day operation.

*WHO is the World Health Organization that sets international standards for various parameters in medical practice.

Selected Bibliography:

Gann PH et al. Cancer Epidemiol Biomarkers Prev 2001 Jan; 10(1): 59-64

Prestwood KM et al. J Clin Endocrinol Metab 2000; 85(12): 4462-4469

Chatterton RT et al. Fertil Steril 1999; 71(5): 863-8

Johnson SG et al. Clin Chim Acta 1987; 163(3): 309-18

Wang C et al. J Clin Endocrinol Metab 1981; 53(5): 1021-1024

Walker RF et al. Intl J Androl 1980; 3: 105-120

Griffiths K et al. Steroids 1980; 36(2): 219-228

Wong YF et al. Eur J Obs Gynecol Reprod Biol 1990; 34: 129-135

Follingstad AH. JAMA 1978; 239(1): 29-30

Riad-Fahmy D et al. J Reprod Med 1987; 32(4): 254-72

Boever JD et al. Clin Chem 1990; 36(12): 2036-2041

Tallon DF et al. Clin Chem 1984 30(9): 1507-1511

Mounib N et al. J Steroid Biochem 1988; 31(5): 861-865

Wisborg T et al. Acta Obstet Gynecol Scand 1981; 60: 417-420

Vining RF et al. J Clin Endocrinol Metab 1983; 56(3):454-60

www.diagnostechs.com **1-800-878-3787**

09/08 03_DTI/fhp_doc

DIAGNOS-TECHS, INC.
6620 S. 192nd Place, Bldg. J
Kent, Washington 98032