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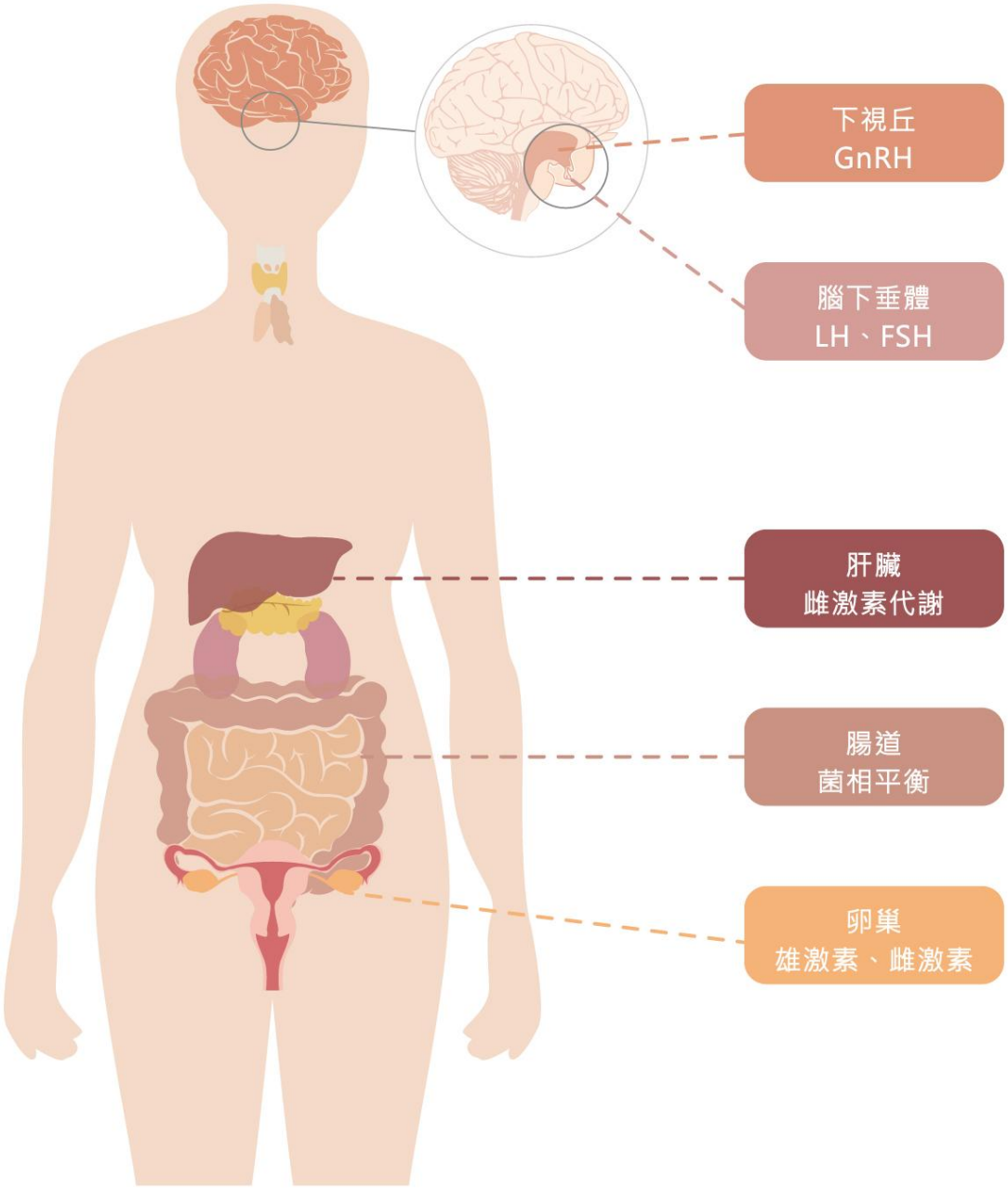
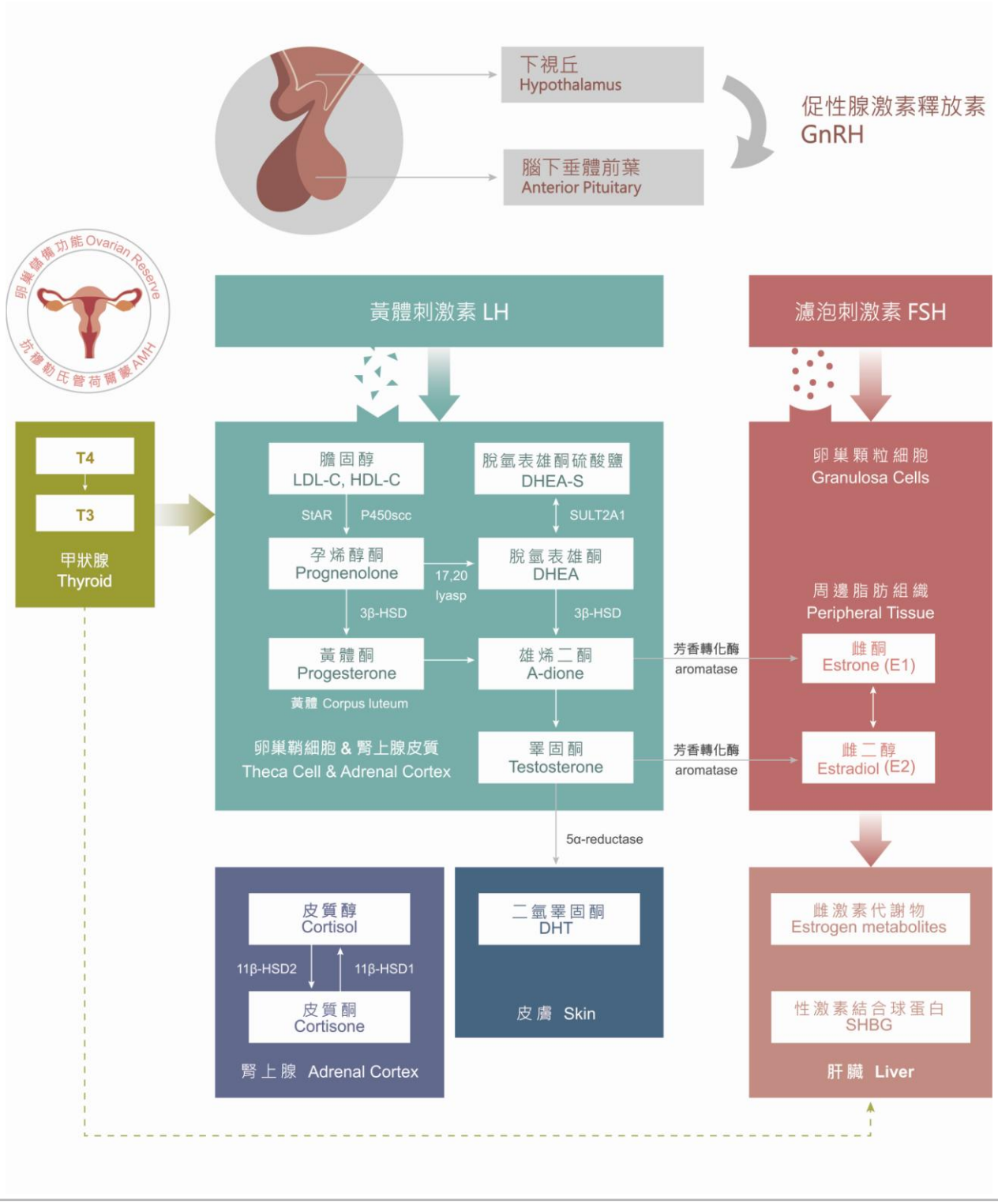
SAMPLE REPORT

Profile : FNPHH: Postmenopause Hormone Health Profile

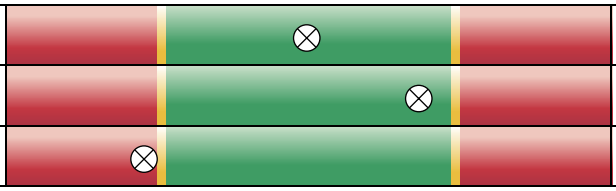
Postmenopause Hormone Profile

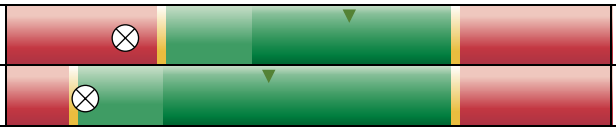


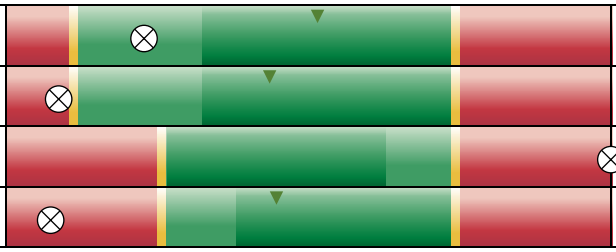
Postmenopause Hormone Profile



Postmenopause Hormone Profile

Pituitary Gonadotropin	Result	<= Reference Interval =>	Reference Range (Optimal)	
LH	44.5		15-75	mIU/ml
FSH	120		26-135	mIU/ml
LH/FSH	0.37 ↓		0.4-1.3	ratio

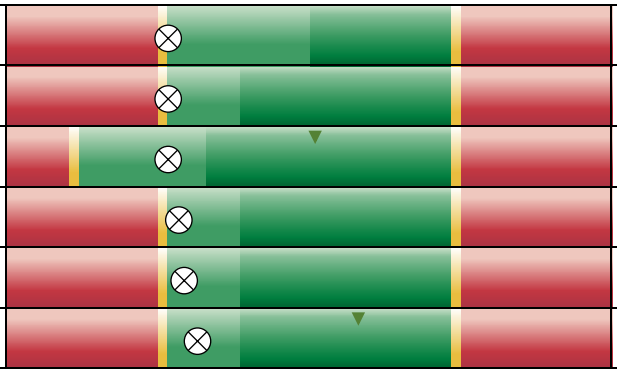
Brain Neurohormone				
Pregnenolone	0.19 ↓		0.24-1.4 (0.76-2.2)	ng/ml
Progesterone	0.17		0.1-0.75 (0.5-2.2)	ng/ml

Estrogen				
E1	12.7		3.0-32 (20-60)	pg/ml
E2	<2.5 ↓		3.0-21 (15-50)	pg/ml
E1/E2	5.1 ↑		0.5-2.0 (0.5-1.5)	ratio
Free E2	0.03 ↓		0.1-0.3 (0.25-0.9)	pg/ml

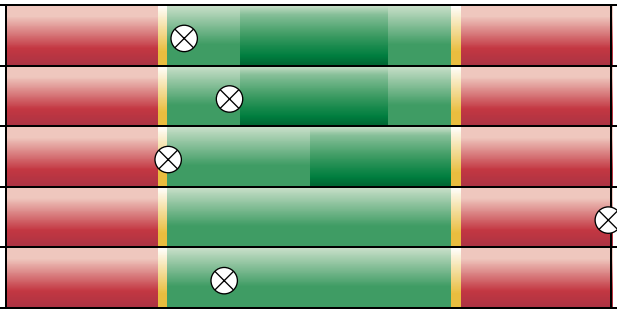
Sex hormone-binding globulin				
SHBG	161 ↑		26-118	nmol/L

Anti-aging Hormone				
DHEA-S	635		350-2600 (1480-3500)	ng/ml

Postmenopause Hormone Profile

Androgen	Result	<= Reference Interval =>	Reference Range (Optimal)	
DHEA	0.77		0.6-7.0 (3.0-7.0)	ng/ml
A-dione	0.15		0.13-0.82 (0.31-0.82)	ng/ml
Testosterone	0.24		0.08-0.5 (0.3-0.7)	ng/ml
Bio-Testo	0.03		0.02-0.15 (0.06-0.15)	ng/ml
Free-Testo	1.3		0.8-7.3 (2.4-7.3)	pg/ml
DHT	38.9		20-160 (60-200)	pg/ml

Stress and Anti-stress Hormone

Cortisol	7.75		6.2-21.3 (10.8-15.2)	µg/dL
Cortisone	2.58		1.8-5.2 (2.7-4.5)	µg/dL
DHEA	0.77		0.6-7.0 (3.0-7.0)	ng/ml
Cortisol/DHEA	10.06 ↑		1.6-4.5	ratio
Cortisol/Cortisone	3.00		1.5-8.35	ratio

Postmenopause Hormone Profile

Item	Result	Ovary cycle		Postmenopause		Unit
		Follicular (Optimal)	Luteal (Optimal)	Non-HRT (Optimal)	HRT (Optimal)	
Pituitary Gonadotropin						
LH	44.5	2.4-12.6 (2.4-7.5)	1.0-11.4 (1.0-6.2)	15-75	15-75	mIU/ml
FSH	120	3.5-12.5 (3.5-8.0)	1.7-7.7 (1.7-5.0)	26-135	26-135	mIU/ml
LH/FSH ratio	0.37 ↓	0.3-2.1 (0.8-1.6)	0.3-2.1 (0.8-1.6)	0.4-1.3	0.4-1.3	ratio
Ovarian reserve function						
Pregnenolone	0.19 ↓	0.24-1.4 (0.76-2.2)	0.24-1.4 (0.76-2.2)	0.24-1.4 (0.76-2.2)	0.24-1.4 (0.76-2.2)	ng/ml
Progesterone	0.17	0.1-1.5 (0.5-2.2)	4.0-22 (8.0-28)	0.1-0.75 (0.5-2.2)	2.0-8.0 (2.0-8.0)	ng/ml
Estrogen						
E1	12.7	30-130 (45-150)	28-80 (40-100)	3.0-32 (20-60)	28-80 (40-100)	pg/ml
E2	<2.5 ↓	39-332 (60-375)	43-145 (60-165)	3.0-21 (15-50)	43-145 (60-165)	pg/ml
E1/E2 ratio	5.1 ↑	0.4-2.0 (0.8-1.6)	0.4-2.0 (0.8-1.6)	0.5-2.0 (0.5-1.5)	0.4-2.0 (0.8-1.6)	ratio
Free E2	0.03 ↓	0.4-4.5 (1.3-5.5)	0.4-4.5 (1.3-5.5)	0.1-0.3 (0.25-0.9)	0.4-4.5 (1.3-5.5)	pg/ml
Sex hormone-binding globulin						
SHBG	161 ↑	26-118 (49-95)	26-118 (49-95)	26-118	26-118	nmol/L

Postmenopause Hormone Profile

Item	Result	Ovary cycle		Postmenopause		Unit
		Follicular (Optimal)	Luteal (Optimal)	Non-HRT (Optimal)	HRT (Optimal)	
Anti-aging Hormone						
DHEA-S	635	<18y:700-3200 (1200-3200) >18y:350-2600 (1480-3500)	<18y:700-3200 (1200-3200) >18y:350-2600 (1480-3500)	350-2600 (1480-3500)	350-2600 (1480-3500)	ng/ml
Androgen						
DHEA	0.77	<18y: 2.0-8.7 (2.5-8.3) >18y: 1.3-8.0 (2.2-8.0)	<18y: 2.0-8.7 (2.5-8.3) >18y: 1.3-8.0 (2.2-8.0)	0.6-7.0 (3.0-7.0)	1.3-8.0 (2.2-8.0)	ng/ml
A-dione	0.15	0.35-1.9 (0.9-1.9)	0.35-1.9 (0.9-1.9)	0.13-0.82 (0.31-0.82)	0.35-1.9 (0.9-1.9)	ng/ml
Testosterone	0.24	0.08-0.6 (0.35-0.8)	0.08-0.6 (0.35-0.8)	0.08-0.5 (0.3-0.7)	0.08-0.6 (0.35-0.8)	ng/ml
Bio-Testosterone	0.03	0.02-0.15 (0.06-0.15)	0.02-0.15 (0.06-0.15)	0.02-0.15 (0.06-0.15)	0.02-0.15 (0.06-0.15)	ng/ml
Free-Testosterone	1.3	1.2-10.2 (3.5-10.2)	1.2-10.2 (3.5-10.2)	0.8-7.3 (2.4-7.3)	1.2-10.2 (3.5-10.2)	pg/ml
DHT	38.9	30-220 (90-260)	30-220 (90-260)	20-160 (60-200)	30-220 (90-260)	pg/ml
Stress and Anti-stress Hormone						
Cortisol	7.75	6.2-21.3 (10.8-15.2)	6.2-21.3 (10.8-15.2)	6.2-21.3 (10.8-15.2)	6.2-21.3 (10.8-15.2)	μg/dL
Cortisone	2.58	1.8-5.2 (2.7-4.5)	1.8-5.2 (2.7-4.5)	1.8-5.2 (2.7-4.5)	1.8-5.2 (2.7-4.5)	μg/dL
DHEA	0.77	<18y: 2.0-8.7 (2.5-8.3) >18y: 1.3-8.0 (2.2-8.0)	<18y: 2.0-8.7 (2.5-8.3) >18y: 1.3-8.0 (2.2-8.0)	0.6-7.0 (3.0-7.0)	1.3-8.0 (2.2-8.0)	ng/ml
Cortisol/DHEA	10.06 ⬆	1.6-4.5	1.6-4.5	1.6-4.5	1.6-4.5	ratio
Cortisol/Cortisone	3.00	1.5-8.35	1.5-8.35	1.5-8.35	1.5-8.35	ratio

Postmenopause Hormone Profile

Female Hormone Interpretation Guide

Pituitary Gonadotropin

Luteinizing Hormone · LH

LH is a hormone produced by the anterior pituitary gland. The release of LH at the pituitary gland is controlled by pulses of gonadotropin-releasing hormone (GnRH) from the hypothalamus. Those pulses, in turn, are subject to the estrogen feedback from the gonads. In the male, LH acts upon the Leydig cell of the testis and is responsible for the production of testosterone, the "male hormone" that exerts both endocrine activity and intratesticular activity such as spermatogenesis.

Your LH level is within the reference range.

Follicle-Stimulating Hormone · FSH

FSH is a hormone synthesized and secreted by gonadotropes in the anterior pituitary gland. Synthesis and release of FSH is triggered by the arrival from the hypothalamus of gonadotropin-releasing hormone (GnRH). In males, FSH enhances the production of androgen-binding protein by the Sertoli cells of the testes, and is critical for spermatogenesis.

Your FSH level is within the reference range.

LH / FSH Ratio

LH/FSH ratio refers to the relative values of two gonadotropin hormones produced by the pituitary gland in women. Luteinizing hormone (LH) and follicle stimulating hormone (FSH) stimulate ovulation by working in different ways. In pre-menopausal women, the normal LH/FSH ratio is 1:1 as measured on day three of the menstrual cycle. Variations from this ratio can be used to diagnose polycystic ovarian syndrome (PCOS) or other disorders, explain infertility, or verify that a woman has entered menopause.

LH/FSH level is below the reference range. Decreased of LH/FSH can result in failure of gonadal function (hypogonadism).

Neurosteroids

A brain steroid, a molecule structurally similar to cortisone, progesterone and the gonadal hormones. Neurosteroids play a role in cintrolling anxiety and depression. Antidepressant drugs known as selective serotonin reuptake inhibitors (SSRIs) increase the brain levels of neurosteroids as well as affecting the levels of chemical serotonin in the brain. Neurosteroid levels are changes in diseases of the nervous system. It has been well documented that neurosteroids protective role on the neurons. Neurosteroids reduces the disorders associated with nervous system in neurodegenerative diseases and can be used as preventive and therapeutic in these diseases.

Pregnenolone · P5

Pregnenolone is a precursor to the body's other naturally occurring hormones, including DHEA, progesterone, estrogen, testosterone, and cortisol. Pregnenolone is synthesized directly from cholesterol and is responsible for countless functions in our bodies. By the age of 75, however, the body's production of this valuable hormone has declined by as much as 60%, and levels of the hormones for which pregnenolone is a precursor have also

diminished.

Enhancing Memory and Cognition

Boosting acetylcholine levels, increasing neurogenesis (the creation of new neurons), and regulating gamma-aminobutyric acid (GABA) are among the ways pregnenolone may help improve memory and cognitive function. Acetylcholine is a critical neurotransmitter that helps brain cells communicate with each other. Many Alzheimer’ s medications, such as Aricept® and Reminyl®, work by inhibiting the breakdown of acetylcholine.

Alleviating Arthritis Symptoms

Even when energy levels are high, arthritis may still prevent many aging adults from enjoying the activities of their youth. Several studies have reported the benefits of pregnenolone in arthritic conditions. In one study of pregnenolone therapy in rheumatoid arthritis, six of 11 patients experienced moderate to marked improvement in joint pain and joint mobility. In one person who suffered from gout and was unresponsive to traditional medications, pregnenolone therapy resulted in a dramatic response within three days of initiating therapy.

Your Pregnenolone is below the reference range. Besides aging, stress, disease, hypothyroidism, exposure to toxins and depression all result in low pregnenolone levels. Patients suffering from depression have been found to have pregnenolone levels less than half those found in nondepressed persons.

Progesterone · P4

Progesterone is produced in small amounts in men too. Progesterone is as vital for men's health as it is for women's. When it comes to men & progesterone, progesterone protects men against excessive estrogen. Like women, men are also at risk of becoming estrogen dominant, and the symptoms, although different from women’ s, can also be dire. Progesterone is an 5-alpha reductase inhibitor - it helps prevent the conversion of testosterone into DHT. Progesterone may also help men with complexion and increased energy. Progesterone balances the estrogens that build in a man's body. Furthermore, it may be important in the prevention and/or treatment of prostatism and prostate cancer.

Progesterone level is within the reference range.

Estrogen

In women, estrogen is produced mainly in the ovaries. Ovaries are grape-sized glands located by the uterus and are part of the endocrine system. Estrogen is also produced by fat cells and the adrenal gland. At the onset of puberty, estrogen plays a role in the development of so-called female secondary sex characteristics, such as breasts, wider hips, pubic hair and armpit hair.

Estrogen also helps regulate the menstrual cycle, controlling the growth of the uterine lining during the first part of the cycle. If the woman's egg is not fertilized, estrogen levels decrease sharply and menstruation begins. If the egg is fertilized, estrogen works with progesterone, another hormone, to stop ovulation during pregnancy. During pregnancy, the placenta produces estrogen, specifically the hormone estriol. Estrogen controls lactation and other changes in the breasts, including at adolescence and during pregnancy.

Estrone, E1

Estrone is one of the three naturally occurring estrogens, the others being estradiol and estriol. Estrone is

produced primarily from androstenedione originating from the gonads or the adrenal cortex. In premenopausal women, more than 50% of the estrone is secreted by the ovaries. In prepubertal children, men and non-supplemented postmenopausal women the major portion of estrone is derived from peripheral tissue conversion of androstenedione. Interconversion of estrone and estradiol also occurs in peripheral tissue. Bioassay data indicate that the estrogenic action is much less than estradiol. Estrone is a primary estrogenic component of several pharmaceutical preparations, including those containing conjugated and esterified estrogens. In premenopausal women estrone levels generally parallel those of estradiol. After menopause estrone levels increase, possibly due to increased conversion of androstenedione to estrone.
E1 level is within the reference range.

Estradiol · E2 、 Free Estradiol · Free E2
Estradiol is the most potent estrogen. In women estradiol is responsible for growth of the breast and reproductive epithelia, maturation of long bones and development of the secondary sexual characteristics. Estradiol is produced mainly by the ovaries with secondary production by the adrenal glands and conversion of steroid precursors into estrogens in fat tissue. Estradiol levels are used to assess fertility, amenorrhea and precocious puberty in girls.
Your E2 level is below the reference range. Low estradiol can cause a number of neurological and physical problems. Women with decreased amounts of the hormone often suffer from unexplained fatigue, difficulty sleeping, depression and severe mood swings. Since estradiol also plays a role in increasing the density of bone in women, low amounts of estradiol can result in the early onset of osteoporosis.
Your Free E2 level is below the reference range. Low estradiol can cause a number of neurological and physical problems. Women with decreased amounts of the hormone often suffer from unexplained fatigue, difficulty sleeping, depression and severe mood swings. Since estradiol also plays a role in increasing the density of bone in women, low amounts of estradiol can result in the early onset of osteoporosis.

E1 / E2 ratio
Men and women produce estrogen, called estrone in men. An enzyme synthesizes estrogen from testosterone in small amounts in the male body. Estrone regulates a man’ s reproductive system and sex drive, while normal levels maintain heart rate. E2 may arise from E1 or from testosterone in peripheral tissues such as adipose. Estradiol:Estrone ratio should be approximately 1:1
Your E1/E2 level is above the reference range. The increase in estrone is due to the increased conversion of androstenedione and testosterone to estrone (E1). There is evidence that high E1 levels may indicate increased tendency to cancer cell growth. Obesity also increases tumor risk, most likely because the aromatase activity of adipose cells elevates tissue and circulating E1 levels.

Sex hormone-binding globulin

Sex hormone binding globulin · SHBG
Sex hormone-binding globulin (SHBG) is synthesized primarily in the liver and serves as a protein carrier for

Estradiol (E2), testosterone, and dihydrotestosterone (DHT). The biologic effects of these steroid hormones (especially testosterone) are largely determined by the unbound portion. Thus, SHBG exerts a major regulatory effect on bioactivity of these steroids.

Your SHBG level is above the reference range. Conditions with high SHBG include pregnancy, hyperthyroidism, and anorexia nervosa. There has recently been research to link high SHBG levels with breast and testicular cancer as well.

Anti-aging Hormone

DHEA-S

Dehydroepiandrosterone-sulfate (DHEA-S) circulates in a higher concentration than any other steroid, is derived from the adrenal gland in response to ACTH, and is the storage form for DHEA. This anabolic hormone serves as a precursor to other androgens such as androstenedione (A-dione) and testosterone, which may, in turn, be enzymatically converted to estrogens in peripheral tissues such as adipose and bone. DHEA-S also plays an important role in thyroid function, immune regulation, maintenance of libido and lean body mass, insulin sensitivity, and balancing the body's stress response. DHEA-S levels peak between the ages of 20 and 30 years, thereafter decreasing markedly, along with downstream androgens and estrogens.

Your DHEA-S level is within the reference range.

Androgens

Androgens in Women

In women, androgens are produced in the ovaries, adrenal glands and fat cells. In fact, women may produce too much or too little of these hormones—disorders of androgen excess and deficiency are among the more common hormonal disorders in women.

In women, androgens play a key role in the hormonal cascade that kick-starts puberty, stimulating hair growth in the pubic and underarm areas. Additionally, these hormones are believed to regulate the function of many organs, including the reproductive tract, bone, kidneys, liver and muscle. In adult women, androgens are necessary for estrogen synthesis and have been shown to play a key role in the prevention of bone loss, as well as sexual desire and satisfaction.

Dehydroepiandrosterone · DHEA

Dehydroepiandrosterone (DHEA) is a weak androgen synthesized by the adrenal cortex. It has a short half-life and is usually converted to dehydroepiandrosterone sulfate (DHEA-S).

Your DHEA level is within the reference range.

Androstenedione · A-dione

The steroid hormone Androstenedione is one of the main androgens, besides Testosterone and DHEA. Testosterone, the most important biological active androgen, is derived from peripheral enzymatic conversion of

androstenedione. The highest levels are measured in the morning. At the age of puberty serum androstenedione levels rise, after menopause they decline again.
A-dione level is within the reference range.

Testosterone
Testosterone is considered a male hormone, but it plays an important role in the female body as well. Testosterone is responsible for maintaining muscle mass and bone strength and contributes to healthy sexual function. Testosterone levels gradually decrease with age, leaving many women to suffer from depression and lack of energy. Low testosterone also contributes to hormonal imbalances in the body which can cause polycystic ovarian syndrome and even infertility. Although women utilize relatively small amounts of testosterone compared to men, it is critical that an adequate amount is produced to ensure proper health.
Your Testosterone level is within the reference range.

Free-Testosterone、Bio-Testosterone
Although testosterone is a male hormone it is also a necessary hormone in the female body. In the female, the adrenal gland and the ovary are responsible for the synthesis of testosterone. Studies show that their main function is the control of female libido. Its concentration is the highest just prior to ovulation. When a woman is aged 40, the concentration of testosterone in the body is only half of what it was compared to a woman aged in her 20s. The decrease is even more pronounced in menopausal women.
Your Free Testosterone level is within the reference range.
Your Bio-Testosterone level is within the reference range.

Dihydrotestosterone · DHT
Dihydrotestosterone (DHT) is an androgen, similar to dehydroepiandrosterone, androstenedione and testosterone. Androgens circulate in the blood bound to proteins, especially sex hormone binding globulin (SHBG). Approximately 1 - 2 percent of these androgen steroids circulates in the unbound form in the blood and are referred to as the free or unbound androgens. Dihydrotestosterone has at least three times the binding affinity for SHBG than testosterone. In women, most of the dihydrotestosterone is derived from androstenedione. The major organ to metabolize androgens is the liver where the androgen steroid hormones undergo structural modifications that are generally regarded as prerequisites for their biological inactivation.
DHT level is within the reference range.

Adrenal Gland Essentials

The adrenal glands are two glands that sit on top of your kidneys that are made up of two distinct parts.

- The adrenal cortex-the outer part of the gland-produces hormones that are vital to life, such as cortisol (whichhelps regulate metabolism and helps your body respond to stress) and aldosterone (which helps control blood pressure).
- The adrenal medulla-the inner part of the gland-produces nonessential (that is, you don’ t need them to live)

hormones, such as adrenaline (which helps your body react to stress).

When you think of the adrenal glands (also known as suprarenal glands), stress might come to mind. And rightly so - the adrenal glands are arguably best known for secreting the hormone adrenaline, which rapidly prepares your body to spring into action in a stressful situation. But the adrenal glands contribute to your health even at times when your body isn't under extreme stress. In fact, they release hormones that are essential for you to live

Cortisol

Cortisol is the major glucocorticoid secreted by the adrenal gland. Secretion is regulated by ACTH in a diurnal fashion. ACTH secretion peaks in the early morning hours, stimulating a morning peak of serum cortisol concentration. Cortisol, therefore, is best measured in the morning (8 AM) when evaluating for possible adrenal insufficiency and best measured in the afternoon or evening (4-11 PM) to differentiate normal and Cushing's syndrome subjects. Baseline and postdexamethasone suppression values may be useful in differential diagnosis. ACTH-stimulated values also may be useful. Combined measurements of serum cortisol and ACTH provide differential diagnostic discrimination in most cases.

Your Cortisol is within the reference range.

Cortisone

Cortisol, the active glucocorticoid produced by the adrenal gland, is inactivated to cortisone in peripheral tissues. Excretion of both cortisol and cortisone is increased in patients with Cushing's syndrome but reduced in patients with adrenal insufficiency and in those receiving exogenous glucocorticoid (e.g., prednisone). In patients with apparent mineralocorticoid excess (AME), cortisone formation is reduced, allowing cortisol to act as a mineralocorticoid. Patients with AME have reduced cortisone and aldosterone excretion, while urinary free cortisol is normal or increased.

Your Cortisone is within the reference range.

Cortisol/DHEA ratio

While cortisol levels stay the same or even increase as we age, levels of another vitally important hormone, DHEA, decrease with each passing year. This relationship between cortisol and DHEA has led some to suggest that these adrenal hormones may play a significant role in the aging process and its associated negative health effects.

Your Cortisol/DHEA is above the reference range. An abnormal physiology response to stress, with shifting of steroidogenic pathway to cortisol at the expense of DHEA. The high Cortisol/DHEA ratio (similar to the shift seen in aging) also characterized the depressed group, Alzheimer's disease.

Cortisol/Cortisone ratio

Cortisol, the active glucocorticoid produced by the adrenal gland, is inactivated to cortisone in peripheral tissues. 11beta-Hydroxysteroid dehydrogenase (11beta-HSD) enzymes convert cortisol into inactive cortisone and vice versa. While 11beta-HSD type 2 (mainly localized in the kidney) unidirectional inactivates cortisol to cortisone, type I isoform (mainly localized in the liver) acts bidirectional and can thus potentially restore cortisone to active

cortisol.

Your Cortisol/Cortisone is within the reference range.

Hormone Imbalance - Prevention & Curing Protocol:

1. The ideal process for achieving hormonal balance includes an assessment of Estrogen Genomics, Estrogen Metabolism Health Profile, Xengoestrogen: phthalates, Parabens, Phenols, Cardiometabolic Health Profile, Adrenocortex Stress Profile, Tumor Marker, Liver Function Test, Renal Function Test, and Blood Routine.
2. Cancer Prevention and Health Promotion - indole-3-carbinol(I3C), Diindolylmethane(DIM).
3. For healthy homocysteine metabolism and supports healthy phase II methylation during liver detoxication reactions - choline、vitamin B2、B6、methylcobalamin、calcium folinate、trimethylglycine.
4. Antioxidants and nutritional supplements that heal the liver and improve liver function - glutathione, N-acetyl-l-cysteine, lipoic acid, sulfur, taurine, milk thistle, glycine, and methionine.
5. Mood support - theanine, 5-HTP,St. John’ s Wort, and ginkgo biloba.
6. Reducing inflammation - resveratrol, curcumin, quercetin, catechin, and boswellia.

*** The above suggestions are for doctor’ s reference only ***