SpectraCell Laboratories
Science + Health + Solutions

Hormone Balance Report

Michale Hartte

Date Collected: 8/29/2018

SpectraCell Laboratories
Science + Health + Solutions

Hormone Balance Report

Patient Name:	Hartte, Michale	Batch Number:	B7531
Patient DOB:	10/24/1967	Accession Number:	S66363
Gender:	F	Date Received:	8/30/2018
Physician:	Michale Hartte, NNCP	Report Date:	9/12/2018

Test			Graph	Patient Results	Reference Range	
Estrone (E1)	pg/mL	[1]	0.0 75.0 150.0 225.0 300.0	87.8	< 200	Luteal Phase
			graph based on Luteal Phase		100 - 250	Follicular Phase
					3 - 32	Postmenopausal
					< 150	Nonpregnant
					< 150	Follicular Phase - Early
Estradiol (E2)	pg/mL		0.0 75.0 150.0 225.0 300.0	172.9	27 - 246	Luteal Phase
			graph based on Luteal Phase		ND - 160	Follicular Phase
					ND - 30	Postmenopausal Untreated
					ND - 93	Treated Postmenopausal
					ND - 102	Oral Contraceptives
Estriol, Unconjugated	ng/mL		0.00 0.04 0.08 0.12 0.16	< 0.07	< 0.08	Nonpregnant
Luteinizing Hormone	mIU/mL		0.0 6.3 12.5 18.8 25.0	2.1	ND - 14.7	Luteal Phase
			graph based on Luteal Phase		1.1 - 11.6	Follicular Phase
					11.3 - 39.8	Postmenopausal
					ND - 8.0	Oral Contraceptives
Follicle Stimulating H	mIU/mL		0.0 4.5 9.0 13.5 18.0	4.0	1.2 - 9.0	Luteal Phase
			graph based on Luteal Phase		2.8 - 11.3	Follicular Phase
					21.7 - 153.0	Postmenopausal Untreated
					9.7 - 110.0	Treated Postmenopausal
					ND - 4.9	Oral Contraceptives
Progesterone	ng/mL		0.00 10.00 20.00 30.00 40.00	11.64	0.72 - 17.8	Luteal Phase
			graph based on Luteal Phase		0.33 - 1.2	Follicular Phase
					ND - 1.0	Postmenopausal
					0.34 - 0.92	Oral Contraceptives
Prolactin	ng/mL		0.0 6.3 12.5 18.8 25.0	13.3	1.9 - 23.1	
Testosterone, Total	ng/dL		0.0 22.5 45.0 67.5 90.0	< 20.0	ND - 73	Ovulating
			graph based on Ovulating		ND - 43	Postmenopausal
Testosterone, Free (Ca	ng/dL		0.0 1.0 2.0 3.0 4.0	< 0.3	0.3 - 1.9	
SHBG	nmol/L		2 45 89 132 175	> 180	18 - 144	Nonpregnant
Androstenedione	ng/mL		0.0 1.3 2.5 3.8 5.0	1.8	0.3 - 3.3	
DHEA-S	µg/dL		0.0 125.0 250.0 375.0 500.0	119.3	35 - 430	
Cortisol	µg/dL		0.2 11.4 22.6 33.8 45.0	13.1	3.1 - 22.4	
IGF-1	ng/mL		0 250 500 750 1000	100	55 - 248	

[1] Testing Performed at Sonic Reference Laboratory, Inc. 9200 Wall St., Suite 200, Austin, TX 78754 CLIA# 45D2083658

SpectraCell Laboratories
Science + Health + Solutions

Hormone Balance Report

Account Number	283116	Name	Hartte, Michale	Batch Number	B7531
Michale Hartte, NNCP		Gender	F	Accession	S66363
0		DOB	10/24/1967	Date Received	8/30/2018
				Date Reported	9/12/2018

Results

Test	Normal	Abnormal	Units	Ref Range	Comments
Estrone (E1) [1]	87.8		pg/mL	< 200	Luteal Phase
				100 - 250	Follicular Phase
				3 - 32	Postmenopausal
				< 150	Nonpregnant
				< 150	Follicular Phase - Early
Estradiol (E2)	172.9		pg/mL	27 - 246	Luteal Phase
				ND - 160	Follicular Phase
				ND - 30	Postmenopausal Untreated
				ND - 93	Treated Postmenopausal
				ND - 102	Oral Contraceptives
Estriol, Unconjugated (UE	< 0.07		ng/mL	< 0.08	Nonpregnant
Luteinizing Hormone	2.1		mIU/mL	ND - 14.7	Luteal Phase
				1.1 - 11.6	Follicular Phase
				11.3 - 39.8	Postmenopausal
				ND - 8.0	Oral Contraceptives
Follicle Stimulating Horm	4.0		mIU/mL	1.2 - 9.0	Luteal Phase
				2.8 - 11.3	Follicular Phase
				21.7 - 153.0	Postmenopausal Untreated
				9.7 - 110.0	Treated Postmenopausal
				ND - 4.9	Oral Contraceptives
Progesterone	11.64		ng/mL	0.72 - 17.8	Luteal Phase
				0.33 - 1.2	Follicular Phase
				ND - 1.0	Postmenopausal
				0.34 - 0.92	Oral Contraceptives
Prolactin	13.3		ng/mL	1.9 - 23.1	
Testosterone, Total	< 20.0		ng/dL	ND - 73	Ovulating
				ND - 43	Postmenopausal
Testosterone, Free (Calcul		< 0.3 L	ng/dL	0.3 - 1.9	
SHBG		> 180 H	nmol/L	18 - 144	Nonpregnant
Androstenedione	1.8		ng/mL	0.3 - 3.3	
DHEA-S	119.3		µg/dL	35 - 430	
Cortisol	13.1		µg/dL	3.1 - 22.4	
IGF-1	100		ng/mL	55 - 248	

[1] Testing Performed at Sonic Reference Laboratory, Inc. 9200 Wall St., Suite 200, Austin, TX 78754 CLIA# 45D2083658

SpectraCell Laboratories
Science + Health + Solutions

Hormone Balance

Component Summaries

This information is provided for educational purposes.

Estradiol (E2)
The strongest estrogen, E2 protects blood vessels, increases high density lipoprotein cholesterol (HDL), prevents bone loss, helps form collagen which benefits the appearance of the skin, improves cognitive function and increases the immune response. However, estradiol also exerts a strong proliferative effect on hormone sensitive tissues like the breast, uterus and ovary so it must be properly balanced with progesterone and other estrogens to prevent the clinical manifestation of estrogen dominance.

Progesterone
Progesterone selectively balances the effects of estrogen in hormonally sensitive tissue (breast, uterine) as well as in the bones, brain, and skin. It decreases the immune response, promotes bone formation, protects the brain and tends to have a calming effect on mood. It is also a precursor hormone for other sex hormones as well as cortisol and interacts with thyroid hormones to regulate metabolism.

FSH (Follicle Stimulating Hormone)
FSH stimulates the production of estrogens and is a marker for ovarian function in women. Levels of FSH increase during both ovulation and during ovarian failure and is considered an appropriate test for determining menopausal status in women.

LH (Luteinizing Hormone)
LH is responsible for ovulation in premenopausal women and works synergistically with follicle stimulating hormone to ensure female fertility. LH surges mid-menstrual cycle in women and initiates the release of progesterone. It regulates estrogen production in the ovary and is largely affected by prolactin levels.

Prolactin
Prolactin is an inhibitory hormone that reduces the action of several other hormones. Most known for its ability to stimulate milk production in lactating women, it also regulates calcium metabolism and plays a role in the synthesis of nerve cells and prostaglandins, which are hormone-like substances that regulate inflammation and metabolic processes throughout the body.

IGF-1 (Insulin-like Growth Factor 1)
IGF-1 is an anabolic (tissue building) hormone that is similar in structure (not function) to insulin. Working intimately with growth hormone, IGF-1 causes cells to grow in several tissues throughout the body including muscle, bone, nerves, skin and various organs.

DHEA-S (Dehydroepiandrosterone sulfate)
The most abundant sex hormone in the body, DHEA-S is produced primarily in adrenal glands and is the main precursor hormone for androgens (estrogen & testosterone). DHEA-S enhances immunity, decreases autoimmunity, helps prevent cancer, and improves insulin sensitivity, cognitive function and bone health.

Testosterone
Although levels in women are 5-10% the amount found in men, testosterone is a potent steroid hormone that is clinically associated with increased muscle mass, libido, bone health and a general sense of well being in women. It can also be converted to estrogens and is regulated by LH and FSH. Only free, unbound testosterone is biologically active. Testosterone that is bound to SHBG is basically inert so free testosterone can be calculated if the amount of SHBG in the blood is also known.

Androstenedione
Androstenedione is made from DHEAS and is the immediate precursor hormone to testosterone and estrogen. (DHEAS → Androstenedione → Testosterone → Estrogen). Androstenedione occurs in equilibrium with testosterone so an increase in one usually increases the other.

SHBG (Sex Hormone Binding Globulin)
SHBG, which is regulated by other hormones, is a protein that binds estrogens and testosterone in the bloodstream where they are biologically inactive. Assists in regulation of estrogen and testosterone levels.

Estrone (E1)
This estrogen has very strong tissue proliferative effects and may be linked to estrogen dominant conditions like fibrocystic breasts, endometriosis and uterine fibroids. It will create either dangerous or beneficial metabolites, depending on a person's nutritional status.

Estriol, unconjugated (UE3)
Estriol is a weak estrogen that is very high during pregnancy, but also plays an important role in non-pregnant women by opposing the growth of cancer cells promoted by the stronger estrogens E1 and E2. Estriol is also known to alleviate menopausal symptoms such as hot flashes or urinary incontinence.

PSA Total (Prostate Specific Antigen)
PSA is a protein secreted by cells in the prostate gland. In healthy men, PSA is found in small amounts in the blood but is typically elevated in the presence of prostate inflammation, enlarged prostate (benign) or less commonly prostate cancer. It should be noted that many prostate cancers do not produce symptoms and may not necessarily evolve to aggressive cancer.