

TEST REPORT

8605 SW Creekside Place
Beaverton, OR 97008
Phone: 503-466-2445 Fax: 503-466-1636



2018 07 14 001 BU

Ordering Provider:
Jane Getuwell, MD

Samples Received

07/24/2018

Report Date

07/30/2018

Samples Collected

Blood Spot - 07/10/18 08:50

Patient Name: Elite Thyroid

Patient Phone Number: 555 555 5555

Gender	Last Menses	Height	Waist	Basal Body Temperature
Female	07/01/2018	5 ft 4 in	Unspecified	97.9°
DOB	Menses Status	Weight	BMI	
6/30/1974 (43 yrs)	Pre-Menopausal	153 lb	26.3	

TEST NAME	RESULTS 07/10/18	RANGE
Blood Spot Thyroids		
Thyroglobulin	69.7 H	3-40 ng/mL (optimal 3-10)
Total T4	7.5	5-10.8 µg/dL
Free T4	0.8	0.7-2.5 ng/dL
Free T3	3.1	2.4-4.2 pg/mL
TSH	0.7	0.5-3.0 µU/mL
TPOab	13	0-150 IU/mL (70-150 borderline)

<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. * For research purposes only.

Therapies

Clonazepam Lexapro

CLIA Lic # 38D0960950
8/14/2018 8:08:26 AM

The above results and comments are for informational purposes only and are not to be construed as medical advice. Please consult your healthcare practitioner for diagnosis and treatment.

David T. Zava

David T. Zava, Ph.D.
Laboratory Director

Alison McAllister ND

Alison McAllister, ND.
(Ordering Provider unless
otherwise specified on page 1)

Disclaimer: Symptom Categories below show percent of symptoms self-reported by the patient compared to total available symptoms for each category. For detailed information on category breakdowns, go to www.zrtlab.com/patient-symptoms.

SYMPTOM CATEGORIES	RESULTS 07/10/18
Estrogen / Progesterone Deficiency	37%
Estrogen Dominance / Progesterone Deficiency	50%
Low Androgens (DHEA/Testosterone)	57%
High Androgens (DHEA/Testosterone)	21%
Low Cortisol	46%
High Cortisol	39%
Hypometabolism	44%
Metabolic Syndrome	42%

SYMPTOM CHECKLIST	MILD	MODERATE	SEVERE
Aches and Pains			
Acne			
Allergies			
Anxious			
Bleeding Changes			
Blood Pressure High			
Blood Pressure Low			
Blood Sugar Low			
Body Temperature Cold			
Bone Loss			
Breast Cancer			
Breasts - Fibrocystic			
Breasts - Tender			
Chemical Sensitivity			
Cholesterol High			
Constipation			
Depressed			
Fatigue - Evening			
Fatigue - Morning			
Fibromyalgia			
Foggy Thinking			
Goiter			
Hair - Dry or Brittle			
Hair - Increased Facial or Body			
Hair - Scalp Loss			
Headaches			
Hearing Loss			
Heart Palpitations			
Hoarseness			
Hot Flashes			
Incontinence			
Infertility			
Irritable			
Libido Decreased			
Memory Lapse			
Mood Swings			
Muscle Size Decreased			
Nails Breaking or Brittle			
Nervous			
Night Sweats			
Numbness - Feet or Hands			

SYMPTOM CHECKLIST	MILD	MODERATE	SEVERE
Pulse Rate Slow			
Rapid Aging			
Rapid Heartbeat			
Skin Thinning			
Sleep Disturbed			
Stamina Decreased			
Stress			
Sugar Cravings			
Sweating Decreased			
Swelling or Puffy Eyes/Face			
Tearful			
Triglycerides Elevated	BLANK		
Urinary Urge Increased			
Uterine Fibroids			
Vaginal Dryness			
Water Retention			
Weight Gain - Hips			
Weight Gain - Waist			

Lab Comments

Thyroglobulin is higher than reference range suggesting less than optimal consumption of iodine over the past several weeks, or blockage of iodine uptake or utilization by goitrogens found in common foods (e.g. cruciferous vegetables, soy), industrial contaminants (e.g. perchlorate, polybrominated and polychlorinated biphenyls), and cigarette smoke (thiocyanogens). Blood thyroglobulin is considered a good marker of the average iodine level over previous weeks. Excluding thyroid cancer, wherein thyroglobulin is usually very high, a high thyroglobulin ranging from >10-50 ng/ml suggests low iodine, inhibition of iodine uptake into the thyroid gland, or inhibition thyroglobulin iodination by thyroid peroxidase. Thyroglobulin is a tyrosine-rich protein produced exclusively in the follicular cells of the thyroid gland. Its synthesis is directed by TSH released from the hypothalamus in response to low circulating levels of T3 and T4. Following transport of iodine into the thyroid gland the iodide is converted by thyroid peroxidase and H₂O₂ to iodine, which then covalently binds to tyrosine residues on thyroglobulin. The iodinated thyroglobulin is stored in the colloidal lumen of the thyroid gland before it is eventually converted to thyroid hormones, T3 and T4. Poorly iodinated thyroglobulin is more likely to diffuse out of the lumen directly into the bloodstream instead of being stored for future thyroid hormone synthesis. A small amount of thyroglobulin is normally present in the bloodstream, but levels exceeding 10 ng/ml usually (excluding thyroid pathology) indicate low iodine levels in the bloodstream or normal iodine levels but poor uptake and utilization for thyroid hormone synthesis. Goitrogens present in many foods (e.g. thiocyanates and nitrates present in cruciferous vegetables and isoflavones such as genistein found in soybeans) and in some environmental chemicals (e.g. perchlorates, bisphenols) and medicines can inhibit the uptake or organification of iodine into thyroglobulin. If iodine levels in urine are low and thyroglobulin is elevated this would indicate an iodine deficiency that should be treated with iodine prophylaxis. If iodine is not low the higher thyroglobulin may be caused by goitrogens, or indicate thyroid gland dysfunction (e.g. goiter or thyroid nodules).

Total T4 is within observed range. While total T4 is a good marker of the thyroid glands ability to synthesize thyroid hormones (assuming no thyroid hormone therapy), it is not reflective of the bioavailable fraction of T4 available to target tissues throughout the body. Free T4 and free T3 are a better estimation of the bioavailable thyroid hormones. If symptoms of thyroid deficiency are problematic and other thyroid hormone markers are out of balance (e.g. low free T4, low free T3, high TSH, and/or high thyroglobulin), consider thyroid hormone therapy.

Free T4 is within normal range but lower than the optimal range of 1-2.5. Reported symptoms indicate thyroid deficiency; therefore, it would be worthwhile to consider thyroid therapy or modification of any hormonal imbalances (eg. high estradiol, low progesterone, low testosterone, high or low cortisol) that might impede optimal thyroid function.

Free T3 is within normal range but symptoms indicate thyroid deficiency. A normal T3 does not exclude the possibility of a "functional" thyroid deficiency caused by other hormonal imbalances such as excess estrogen, low progesterone, low testosterone, low or high cortisol, and low growth hormone (IGF-1). Testing for these hormones is recommended.

TSH is within normal range; however, symptoms suggest thyroid deficiency. A normal TSH does not exclude thyroid deficiency, particularly when stress hormones (cortisol or catecholamines) are elevated (suggest testing salivary cortisol). When stress hormones are high a low level of thyroid hormone (T3) is less likely to stimulate pituitary TSH synthesis.

Thyroid peroxidase (TPO) antibodies are low indicating that Hashimoto's autoimmune thyroiditis is unlikely.