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# 2018 08 01 300 B

Ordering Provider: Getuwell Clinic Samples Received 08/01/2018

**Report Date** 08/06/2018

**Samples Collected** 

Blood Spot - 07/28/18 08:15

#### **Patient Name**

#### **Patient Phone Number:**

<b>Gender</b> Female	<b>Last Menses</b> 07/10/2018	<b>Height</b> 5 ft 6 in	<b>Waist</b> 27 in	
<b>DOB</b> 5/21/1973 (45 yrs)	<b>Menses Status</b> Pre-Menopausal - Irregular	<b>Weight</b> 125 lb	<b>BMI</b> 20.2	
TEST NAME	RESULTS   07/28/18 R	ANGE		
<b>Blood Spot Thyroids</b>				
Free T4*	1.4	7-2.5 ng/dL		
Free T3	3.6	4-4.2 pg/mL		
TSH	< <b>0.2 L</b> 0.	5-3.0 µU/mL		
TPOab*	23	0-150 IU/mL (70-150 borderline)		

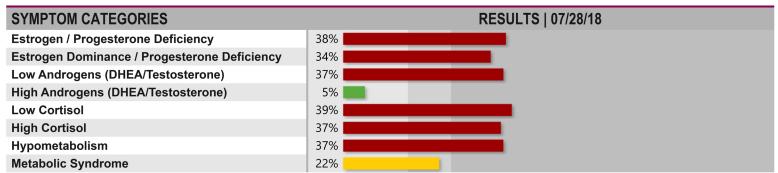
<dL = Less than the detectable limit of the lab. N/A = Not applicable; 1 or more values used in this calculation is less than the detectable limit. H = High. L = Low. \* For research purposes only.</p>

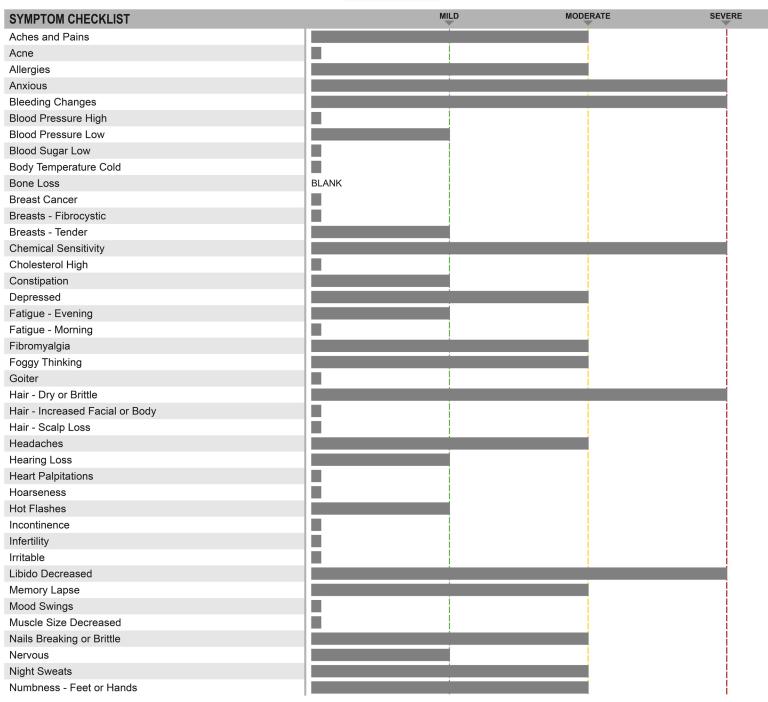
#### **Therapies**

100mg oral Levothyroxine (T4) (Pharmaceutical) (25 Hours Last Used)6.25mg oral Cytomel (T3) (Pharmaceutical) (25 Hours Last Used)

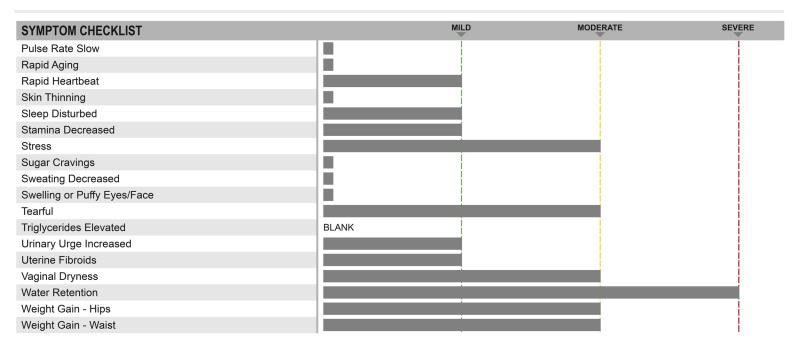
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**Disclaimer:** Symptom Categories below show percent of symptoms self-reported by the patient compared to total available symptoms for each category. For detailed information on category breakdowns, go to www.zrtlab.com/patient-symptoms.





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### Lab Comments

Thyroid hormones (free T4, free T3) and thyroid peroxidase antibodies (TPO) are within normal ranges with thyroid therapy (T4+T3). TSH is lower than detectable range, which reflects the negative feedback effect of excessive thyroid therapy (T3) to the hypothalamic-pituitary axis. Although T4 and T3 are within normal ranges with thyroid therapy, symptoms of thyroid deficiency persist, some of which include the following: feeling cold, low stamina, fatigue mostly in the evening, depression, low libido, breaking and brittle nails, hair dry and brittle, foggy thinking, and constipation. Normal levels of T4 and T3 with thyroid therapy suggests that T3 is not functioning normally at the tissue level (i.e., functional thyroid deficiency) and is not effectively activating cellular thyroid receptors. Stress is listed as moderate/severe on the requisition form. This often is associated with high cortisol or catecholamines (norepinephrine), which can desensitize target tissues to the actions of T3. Poor response of target tissues to normal circulating levels of T3 may also be caused by heavy metals (particularly mercury), and/or other steroid hormone imbalances (high estradiol, low progesterone, low testosterone). If steroid imbalances are detected by saliva or blood testing, they should be corrected to facilitate thyroid hormone action. Also, since normal cortisol levels and circadian patterns (i.e. higher cortisol in the morning and lower at night) are required for normal thyroid function (cortisol-glucocorticoid receptor and T3-thyroid receptor form dimers that synergistically activate thyroid/cortisol genes) it is worthwhile to evaluate the circadian pattern of cortisol with saliva or dried urine testing. Thyroid therapy in individuals with low cortisol levels, particularly in the morning when cortisol should peak (flat cortisol awakening response), could further exacerbate thyroid deficiency symptoms in the presence of adequate circulating levels of T4 and T3.