Hypothyroidism vs. Hyperthyroidism

Hypothyroidism and hyperthyroidism are a result of an imbalance of thyroid hormone. Hypothyroidism is simply not enough thyroid hormone and hyperthyroidism is too much. Either imbalance affects the metabolism in the body. Guyton (2000) says "hypothyroidism like hyperthyroidism is probably initiated by autoimmunity against the thyroid gland, but immunity that destroys the gland rather than stimulates it (p. 867)."

The thyroid gland regulates the body's metabolism, heart rate, blood pressure, and body temperature, among other functions. Thyroid hormone maintains the rate at which your body uses fats and carbohydrates, burn calories, help regulate your body temperature, influence your heart rate and helps in controlling the production of protein (Huether, 2008). Sometimes the thyroid can produce too much hormones or not enough.

The symptoms of hypothyroidism are mainly dependent on the amount of decrease in thyroid hormone and duration of time that the decrease has been present. But as the metabolism continues to slow more symptoms develop: fatigue and muscle swelling or cramps (mainly in the arms and legs) , tingling in the fingers , loss of equilibrium , weight gain, dry skin and cold intolerance , coarseness or loss of hair , goiter (enlarged thyroid causing a lump in the neck), constipation, hoarseness , elevated cholesterol, memory and mental impairment , decreased concentration, depression irregular or heavy menstruation, infertility or miscarriages, and slowed heart rate (Huether, 2008).

Hyperthyroid system effects are the opposite of hypothyroid. Hyperthyroid effects may include an enlarged thyroid, increased cortisol degradation, decreased PTH secretion and diminished sensitivity to exogenous insulin. The hypothyroid effects include increased TSH production. The hyperthyroid reproductive system effects include amenorrhea, impotency, decreased libido, and lower levels of estradiol. The hypothyroid effects include decreased libido, high incidence of spontaneous abortion, and oligospermia in men, and anovulation in women. Excess sweating, flushing, warm skin, temporary hair loss, and palmar erythema are some of the systemic hyperthyroid integumentary effects and coarse, dry skin, and dry brittle head and body hair are from hypothyroidism. Many hyperthyroid patients will exhibit several ocular manifestations such as elevating upper eyelid and bulging eyes which is not seen in hypothyroidism. Hyperthyroidism stresses the cardiovascular system by increasing cardiac output with resulting tachycardia and increased heart sounds while hypothyroidism causes a reduction in stroke volume and heart rate causing lowered cardiac output with a decrease in heart sounds. Most patients feel the nervous system effects such as restlessness, short attention span, fatigue, insomnia and labile emotions with hyperthyroidism but the hypothyroid effects result in confusion, syncope, lethargy, headaches, slow movements and decreased tendon reflexes. The hyperthyroid and hypothyroid pulmonary systemic effect both results in dyspnea and reduced vital capacity. Hypothyroidism effects on the kidneys resulting in decreased renal excretion of water and production of erythropoietin. Hypothyroidism affects the blood causing anemia, the gastrointestinal system causing constipation, weight gain, fluid retention, and elevated lipid levels.

Regulating the thyroid is a controversial subject between natural medicine and conventional medicine. Blood tests for low thyroid (hypothyroidism) or low metabolism are not accurate, based upon research by Dr. Broda Barnes. (brodabarnes.com). You need to become informed about the symptoms of

hypothyroidism vs. your personal symptoms in comparison. You need to adjust your thyroid support based on your symptoms instead of a piece of paper according to Dr. Barnes.

Dr. Broda Barnes, MD, was a medical endocrinologist who spent 50 years of his life studying the effects of the thyroid gland on the human body. After many years of extensive research, Dr. Barnes discovered that the serum thyroid tests used routinely in medical practice are not reliable indicators of thyroid function. He found that a 6 day average of one's basal temperature was a far more accurate indicator of the thyroid's ability to regulate the body's metabolism. Metabolism is the rate at which our body metabolizes (burns) fuel for energy.

Most people with a low metabolic rate gain weight easier than a person with a healthy metabolic rate. However, the implications of hypothyroidism (low thyroid function) extend far beyond merely weight gain., Hypothyroidism is condition that underlies most chronic degenerative diseases and hormone irregularities and results in a weakened immune system.

The following simple temperature test was developed by Dr. Broda Barnes and is an excellent way to assess your thyroid function.

- Men – may perform this test at any time
- Women – best to perform this test the week of your monthly menstrual cycle if applicable
- Do not use in a heated bed such as heated water beds or electric blankets

1. Use an oral thermometer (digital or mercury). Put at your bedside by your alarm clock.
2. In the morning when you first wake up, BEFORE YOU DO ANYTHING, place the thermometer in your bare armpit.
3. While you are waiting on the thermometer, feel your pulse (radial/wrist or jugular/neck) and count how many beats per minute your heart is beating.
4. When digital thermometer signals or after 5 minutes of a mercury thermometer, read the results and write your temperature and your pulse on this form below.

5. After six days of recorded temperature and rates, add the total of each and divide by six for an average. The ideal temperature and heart rate/beats per minute are in parenthesis. Consistently lower average of either is an indication of decreased thyroid function.

	Temperature (97.8 – 98.4)	Pulse (78-85 bpm)
Day 1	_____	_____
Day 2	_____	_____
Day 3	_____	_____
Day 4	_____	_____
Day 5	_____	_____
Day 6	_____	_____
Total	_____	_____
Divide by 6	_____	_____

Understanding how to help your clients with Thyroid issues

Many nutrients are needed to feed the thyroid. Zinc is the fingers that hold the thyroid hormone in the thyroid. Thyroid liquitrophic contains all the extra minerals to nourish the thyroid. Iodine deficiency is also a cause of hypothyroidism. The two tests available are the iodine patch test and the iodine 24 hour urine excretion challenge. I prefer the urine test for accuracy.

Do not put up with side effects. You do not want your thyroid support to make you become hyperthyroid. If you become nervous, jittery, shaky, get diarrhea, sweaty, cannot sleep, develop a fast pulse rate above 100 then reduce your thyroid support in half. The key in adjusting your dose is to be

conservative and only make changes every two weeks. Your goal is to find the dose where you feel good and your temperature and heart rate are in the correct range. NEVER stop your thyroid abruptly—this cannot really cause your problems.

If the am temp is below 97.2 I recommend they start with Thyroid glandular per the following schedule and thyroid liquitrophic (1 dropper) and 2 caps of #7 enzyme (minerals) (If they are doing the detox then they have to stop the thyroid liquitrophic during the 21 day detox—they can stay on the thyroid glandular and the #7 during the detox):

Time	AM dose	1 PM dose
baseline (day 1)	1 capsule	1 capsule
2 weeks	2 capsules	1 capsule
4 weeks	2 capsules	2 capsules
6 weeks	3 capsules	2 capsules
8 weeks	3 capsules	3 capsules

If your symptoms have not improved then discuss doing the iodine tests and/or 24 hour urine with your coach to evaluate your iodine level and other minerals needed to support your thyroid.

If after 4 weeks the temp has not increased then add another 1 dropper full of thyroid liquitrophic. (continue the above routine to nourish the thyroid)

I would recommend the patch test to see if iodine supplementation is needed. If the patch disappears before 24 hours then I start with 2 Iodorals or ¼ tsp. iodine oligo. I prefer doing the 24 hour loading test to see how low their body is in iodine. You basically give them 4 iodoral tablets and then collect their

urine for 24hours. The lab tests to see how much of the iodine is excreted in the urine. I usually charge $125. I repeat this if their temp or symptoms do not improve in 12 weeks. (remember Iodine helps the body detox metals)

I recommend you check their temperatures once a week. Have them take them every 3 hours from waking to bedtime. If the temp is fluctuating more than .3 in a 24 hour period then you need to increase their adrenal support. Sometimes the thyroid needs support from the adrenals.

The Iodine Patch Test:

This is another test you can do at home to test whether or not you are low in iodine, which leads to hypothyroidism.

Step 1: Go to the pharmacy and purchase Tincture of Iodine--the original, orange-colored solution, not the clear solution.

Step 2: Before going to bed, use the painting stick in the bottle of iodine to paint a 3 inch by 3 inch square patch of iodine onto the underside of the forearm or on the inner thigh or abdomen.

Step 3: In the morning, upon rising, note the color and check off a follows:

No color left at all.

Grayish colored

Pale Yellow

Bright yellow-orange (just like when you applied it the night before)

If there is NO color remaining on your skin, the test is complete. You are iodine deficient.
If there is ANY color remaining on your skin, go to step 4:

Step 4: For the remainder of the day; check the patch every few hours. Note the time that all the color disappears. If the color still is remaining at bedtime, you may consider the test completed (you are not deficient in iodine). Certain supplements can alter your results. **The 24hour urine iodine loading test is more accurate.**

References

Huether, S., & McCance, K. (2007). *Understanding Pathophysiology* (4th ed.). St. Louis: Mosby.

Guyton, A.C., & Hall, J.E. (2000). *Medical Physiology*. (10th ed.). Philadelphia: W.B. Saunders.

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