

Medical Nutrition from Marz

A valuable piece of information for evaluation of low thyroid function is the basal body temperature. The basal metabolism is largely regulated by the thyroid gland and if a person's internal body temperature is very low this is strong diagnostic information regarding the function of the thyroid gland.

Basal body temperatures should be used as one piece of information concerning your thyroid function and clinical judgment is always necessary to make your final diagnosis. Just as blood work should be used as a guide and not used as the final say in diagnosis.

In your differential diagnosis hypoadrenal function has a large overlap in symptoms with hypothyroidism. In hypoadrenalism usually people tend to be thin, fatigued off and on, Achilles tendon reflex tends to be normal and they tend to have orthostatic hypotension. In hypothyroidism cholesterol, triglycerides and glucose tend to be elevated. Exercise makes the hypothyroid person worse where in hypoadrenalism it improves the person's stress response.

How to take basal body temperatures?

Basal body temperatures (BBT) are temperatures that reflect what your basal metabolism is. They can give you valuable information concerning the function of your thyroid gland. Your basal metabolism is how much energy your body expends while it is totally at rest. There are vast differences between people's basal metabolism. That is why two people, eating the same diet and doing the same physical activity, can have opposite changes in body weight where one gains and the other loses weight.

To accurately take your BBT, you must use a glass (mercury filled) thermometer. Digital, tape or ear thermometers although convenient, are too inconsistent and do not give accurate measurements. Special BBT thermometers are available that show degree slash marks further apart, making small changes in temperature easier to read. However, a regular glass fever thermometer will work. To take your BBT shake your thermometer down below 96.0 degrees F the night before (fever thermometers usually only go down 96.0). Have your thermometer handy by the side of the bed for when you awaken. Upon awakening, do not move around except to reach over and get your thermometer. Do not get up, eat anything or do anything until you take your temperature. Place the mercury bulb part of the thermometer into the deepest part of your armpit and hold it here for at least 10 minutes (only experience will tell you if your temperature will go up any more beyond 5 minutes). You do not have to read the thermometer immediately as the temperature will stay the same until you shake the thermometer down. Record the temperature to 1/10 of a degree. In menstruating women, the temperature will vary according to where you are in your cycle. True basal temperatures are from the first day of menses to ovulation. After ovulation both estrogen and progesterone hormones secreted in the body, cause the temperature to rise. Certain things can artificially elevate your temperature giving you inaccurate readings such as having an electric blanket or water bed heated to high level, a fever, some type of inflammation such as from a toothache, ear infection or boil on the skin, certain types of cancer, medication such as progesterone or estrogen hormones, birth control pills, steroid hormones such as cortisone, prednisone or DHEA. You should record your temperatures for at least 7-14 days and then average them out to 1/10 of a degree. It is best to chart your temperatures on a basal temperature chart. Looking at a chart of temperatures makes low or elevated temperature averages more discernible.

Signs and Symptoms

Below is a list of both subjective symptoms and objective physical findings of hypothyroidism.

Fatigue	5	Delayed achilles return reflex	10
Excessive sleeping (waking up still tired)	3	Dry skin	3
Weight gain-especially where not eating much still causes weight gain	5	Follicular hyperkeratosis (bumps on back of arms or front of thighs)	2
Headaches (migraines or low grade)	2	Coarse, very fine, thinning or loss of hair	2
ringing in ears	1	Edema (swelling) in face or legs	3
Dizziness	1	Low body temperature	5
Joint pain, stiffness or muscle stiffness	2	Thick tongue	2
Depression	2	Cold hands and feet	3
Decreased libido (lack of sex drive)	2	Pallor of skin, lips or hands	2
Heart disease (murmurs, arrhythmias etc.)	1	High or low blood pressure	1
Cold or heat intolerance (dislike cold)	3	Slow heart rate (below 60 beats/min)	3
Poor memory (forgetfulness)	2	Brittle nails/slow growing or ridging	
Slowness of mind; can't concentrate	2	FEMALE SIGNS & SYMPTOMS	
Constipation (hard stools/skipping days without bowel movements)	3	Long cycles (greater than 35 days apart) or shortened cycles (less than 24 days)	2
Irritability or emotional outbursts	1	Lack of periods or skipping periods	3
Decreased sweating/difficulty sweating	2	Infertility	2
Difficulty breathing at times	1	Menorrhagia (heavy or long menses)	4
Hoarse voice	1	Chronic miscarriages or premature births	2
Loss of appetite	1	Pre-eclampsia (toxemia of pregnancy)	3
Changes in vision, blurriness, difficulty focusing	2	PMS (moody, Irritable, swollen, breast, fluid retention pre-period, headaches, depression)	4
Allergies or frequent colds, flu, infect.	3	Painful periods (cramping)	2
		Score for males add both columns	
		Score for females add both columns	

How to rate the scores?

Males with a score above 40 very likely hypothyroid.

Non menstruating females with a score above 50 very likely hypothyroid.

Menstruating females with a score above 55 are very likely hypothyroid.

Pertaining to the above score for males, if basal temperatures average below 97.0 and total T4 levels are below 6.0ng/dl then can score 30 and have a very likely probability of hypothyroidism. Likewise for females, if they have temperatures averaging below 96.8 with T4 levels below 5.5ng/dl their score can be 10-15points lower and I would strongly consider hypothyroidism.