

Hypothyroid Symptoms But Normal TSH Levels?: How to treat symptoms of low thyroid by optimizing free T3 levels.

By [WorldLink](#)

Fatigue, weight gain, forgetfulness, mood swings...did the holidays just hit? Or are these symptoms an indication of hypothyroidism? While you might struggle with the holiday season to maintain energy and sanity, these persistent symptoms are a few of the signs related to low thyroid function, also known as hypothyroidism.

What Is Hypothyroidism?

More commonly found in women, approximately 5% of Americans have hypothyroidism, which occurs when the thyroid gland is unable to produce enough thyroid hormone to support several metabolic functions in the body. The thyroid gland secretes two main hormones, thyroxine (T4) and triiodothyronine (T3). T4 is the hormone that is principally produced by the thyroid gland which is then converted in the liver and kidney to the metabolically active T3 hormone. It is the T3 that is responsible for regulation of metabolism, energy production, body temperature, body fat, cholesterol, cognitive function, and symptom improvement.

How do you know if your thyroid levels are low?

There are over 200 symptoms related to low thyroid function that improve with optimal thyroid replacement:

- Colder body temperature
- Symptoms of poor circulation in the hands and feet
- Fatigue
- Depression
- Forgetfulness and fuzzy thinking
- Muscle and joint pain
- Dry skin and brittle nails
- Digestive ailments (constipation, IBS, etc.)
- Menstrual irregularities and infertility
- Emotional instability
- High cholesterol
- Weight Gain

Recommended Treatment from Dr. Rouzier:

Optimizing thyroid function by replacing thyroid hormones to optimal (upper range of normal) can significantly increase energy, metabolism, and well being. Many studies (NEJM & JCEM) demonstrate that raising Free T3 levels

in addition to T4 levels is essential to obtaining these results. Traditionally physicians have prescribed thyroid hormone in a form of T4 only, also known as Synthroid®, Levothyroxine®, or L-thyroxine. Recent studies, however, have demonstrated that this may not be sufficient in many patients to truly feel well. Many thyroid treated patients commonly request even more thyroid, knowing that more makes them feel and function better. The patient might not have realized how lousy they felt until they felt better. This might not be accomplished, as per recent literature, until these patients have improved or optimized T3 replacement as it is the T3 at the cell level that is responsible for thyroid function, and not T4. Nevertheless, it is usually only the T4 preparations that physicians are taught to use for thyroid replacement. Unfortunately using primarily a T4 only preparation typically does not allow for adequate conversion to T3 and therefore improvement in symptoms is often not adequate. Many factors play in the inadequate conversion of T4 into T3 and are related to a defective function of the 5'-deiodinase enzyme responsible for this conversion. Whatever the cause for the inadequate conversion of T4 to T3, many patients have persistent low thyroid symptoms despite adequate T4 replacement. Several landmark studies demonstrate that this can be overcome by simply adding T3 on to the T4 regimen. Improvement in T3 levels can be attained by compounding both T4 and T3 together into a capsule or through the use of the commercially available desiccated thyroid preparations that contain T4 and T3 together in tablet form. The commonly prescribed T4 preparations of L-thyroxine, sometimes referred to as synthetic thyroid and contain only T4 and no T3, might not convert to the active form of T3 which is especially critical for patients who are not able to properly and adequately convert T4 to T3.

A paper published in JAMA demonstrated the importance of T3 in predicting morbidity, mortality, and functional decline. Neither TSH nor T4 were predictive, thereby further establishing that T3 should be the main marker utilized for thyroid replacement.”

Dr. Rouzier recommends physicians review the excellent articles published in NEJM, JCEM, and JAMA to further appreciate the importance of T3 optimization for health and well-being.

Utilizing a combination of both T4 and T3, as suggested by recent literature, most effectively raises the active thyroid hormone at the cell level called T3. Science has proven that it is the T3 level, and not the T4 level, that is responsible for maintenance of normal cholesterol levels. Commercially available combinations of T4 and T3, commonly called desiccated or natural thyroid, will provide more optimal levels of T3 than commercially available T4 only preparations. Since T3 is the more metabolic hormone, low T3 levels result in poor metabolism and symptoms of low thyroid. When pure T4 is given in the form of Synthroid®, Levothyroxine®, or L-thyroxine, T3 levels improve only minimally due to poor conversion of T4 to T3. Many physicians including endocrinologists believe that T4 alone is the only thyroid preparation necessary to prescribe for hypothyroidism. Their reasoning is the belief that the body will automatically (physiologically) convert T4 into T3 if the body needs it. If the body doesn't need it, then it won't make it. This commonly held belief, however, is not what is born out in the medical literature for optimal thyroid function. Recent studies show that use of T4 alone does not adequately convert into T3. Although many patients do improve on pure T4 supplementation alone, adding T3 to the T4 preparation allows us to optimize T3 levels that are not usually achievable with pure T4 preparations alone. It is only supplementation of T3 that augments the antidepressant of thyroid hormone, not T4.

Treatment should restore thyroid to OPTIMAL levels and not just normal.

Conventional treatment for thyroid disorders involves restoring TSH into the normal range which might still maintain levels of T3 in the low normal range in spite of normal TSH levels. Restoring T3 levels into the upper range of normal is now regarded as necessary to achieve improvement in health and well-being. Normal laboratory levels are the average of a population for the age but do not reflect that which would be best for symptom improvement and health. In other words, normal does not mean optimal or what is best for the patient. A recent article in “Gerontology” demonstrated that thyroid replacement in euthyroid men (normally not needing thyroid replacement) into the upper or high range resulted in improvement in cognition, memory, and overall function. This study is just one of many that consistently demonstrate that optimization of all hormones, including low thyroid, provides better metabolism, health, well-being, and disease prevention than does maintaining “normal” levels for the age. Keep in mind that normal levels (average for the age) of estradiol, progesterone, and testosterone are zero in menopausal women. Even though that is the level typically measured in a menopausal woman as menopausal women no longer make these hormones, normal (zero level) is not where the level should be for symptom improvement and health protective benefits (cardiovascular and musculoskeletal). The same applies to thyroid. Low T3 levels were predictive of an increase in fracture rate whereas TSH and T4 levels were not predictive or protective. Where would you like your levels to be? The Rotterdam study (Annals of Internal Medicine) demonstrated that normal levels of thyroid (in the lower 50% of normal) were predictive of a 2.2 fold increase risk of cardiovascular disease, and these were levels in the “normal” range. There is now significant data to support that we physicians should conform to the literature recommendations and understand that in every circumstance optimal levels of all hormones, including thyroid, are very important for health optimization and improvement in symptoms, and subsequently our quality of life.

By simply restoring TSH levels to “normal” blood levels for your age might not be in the best interest for the patient. Lab tests can indicate normal or low normal thyroid levels, but patients can still have symptoms associated with hypothyroidism. According to the BMJ, goals of thyroid replacement should be to treat the patient until the Free T3 and Free T4 levels are in the high normal range. Some patients might require levels that are above normal (suppressed TSH) to feel normal, a concept that we physicians are not taught to trained to do. Researchers emphasize that TSH is not predictive of symptoms or symptom improvement, only T3 is as this is the active hormone at the cell level. Although TSH is very predictive of biochemical hypothyroidism, it is not predictive at all of clinical symptomatology. Rather than treating the patient’s lab tests, researchers suggest that physicians should treat the patient’s symptoms and not the TSH level as we are often taught. Researchers emphasize that if the Free T3 and Free T4 levels are kept within the upper end of normal, in spite of suppressed TSH levels, then overt hyperthyroidism is averted. Thyroid hormone serum levels that are in the optimal range that thereby result in a reduction of hypothyroid symptoms indicate healthy thyroid function.

Benefits of Optimal Thyroid Treatment

Optimal thyroid replacement can effectively restore health and well-being by improving:

- Temperature regulation and metabolism
- Increased energy

- Fat breakdown for healthy bodyweight and cholesterol
- Protection against cardiovascular disease
- Protection against depression and mood disorders
- Cerebral function and cognition
- Healthy skin, hair and nails
- Protection against functional decline

References

1. Applehof BC, Fliers E, Wekking EM, Schene AH, et al. Combined therapy with levothyroxine and liothyronine in two ratios, compared with levothyroxine monotherapy in primary hypothyroidism: a double-blind, randomized, controlled clinical trial. *J Clin Endocrinol Metab.* 2005 May;90(5):2666-2674.
2. Bunevicius R, Kazanavicius R, et al. Effects of thyroxine as compared with thyroxine plus triiodothyronine in patients with hypothyroidism. *N Engl J Med.* 1999; 340(6): 424-429.
3. Gussekloo J, van Exel E, de Craen AJ, Meinders AE, et al. Thyroid status, disability and cognitive function, and survival in old age. *JAMA.* 2004 Dec;292(21):2591-2599.
4. Hak AE, Pols HA, Visser TJ, Drexhage HA, et al. Subclinical hypothyroidism is an independent risk factor for atherosclerosis and myocardial infarction in elderly women: the Rotterdam Study. *Ann Intern Med.* 2000 Feb;132(4):270-278.
5. Klein I, Ojamaa K. Thyroid hormone and the cardiovascular system. *N Engl J Med.* 2001; 344(7): 501-509.
6. Meier C, Trittibach P, Guglielmetti M, Staub J, Muller B. Serum thyroid stimulating hormone in assessment of severity of tissue hypothyroidism in patients with overt primary thyroid failure: cross sectional survey. *BMJ.* 2003 Feb;326(7384):311-312.
7. Prinz PN, Scanlan JM, Vitaliano PP, Moe KE, et al. Thyroid Hormones: Positive Relationships With Cognition in Healthy, Euthyroid Older Men. *J Gerontol.* 1999;54(3):M111-M116.
8. Rouzier N. How to achieve healthy aging. 2007. Salt Lake City, UT: WorldLink Medical Publishing.
9. Toft AD. Thyroid hormone replacement – one or two? *N Engl J Med.* 1999; 340(6): 468-470.