HYPOTHYROIDISM IN WOMEN

BY DR. DANIEL EINHORN

COULD IT BE MY THYROID? This is one of the most commonly asked questions by women, especially to a clinical endocrinologist like me. The "it" usually refers to weight gain, fatigue, mood disturbance, sleep disturbance, hot or cold intolerance, and any one of dozens of similar concerns. Since the answer has to include that "it might be," many thyroid tests are done even when the likelihood of thyroid disease is small. Since puberty, pregnancy, and menopause may cause identical symptoms to thyroid disease, those are the most common times women present with these symptoms. When thyroid disease does turn out to be the diagnosis, everybody is happy because the treatment is very satisfying, safe, and inexpensive.

Most thyroid disease is autoimmune in nature, so it is not surprising that women have it 8 to 12 times more commonly than men. Most common of all is under active, or hypothyroidism, which affects between 12-30 million Americans, depending on how you define it. Symptoms include all those listed above, plus physical signs such as dry skin, hair, and nails, puffiness of hands and face, and, often, diffuse enlargement of the thyroid gland. Diagnosis must be made by lab test, however, since there are no diagnostic clinical features.

Elevation of thyroid stimulating hormone (TSH) is the diagnostic hallmark of hypothyroidism. Controversy exists over what level of TSH should be considered high. Traditionally, the range of normal has been .350 to 5.500. However, some endocrinologists believe that any TSH above 3, in the presence of suggestive symptoms and signs or evidence of autoimmunity, should be considered possibly hypothyroid. Levels above 10 should be treated even in the absence of symptoms or signs because hypothyroidism can adversely impact blood pressure, cholesterol, and other cardiovascular risk factors. The elderly have higher TSHs and pregnant women have lower TSHs, often below 1 in the first trimester and below 2.5 throughout the pregnancy.

There is some value to knowing whether you have the most common form of hypothyroidism, Hashimoto's Disease, since that is highly inheritable, especially among the females in the family. Named after Dr. Hakaru Hashimoto, it is diagnosed by the presence of antibodies to components of the thyroid, anti-TPO and anti-microsomal antibodies. Often these make the gland hard rubbery and enlarged, sometimes with nodularity that can be mistaken for malignancy. This, like virtually all forms of hypothyroidism, is permanent. An exception is post-partum hypothyroidism, which can be temporary.

As with postmenopausal hormone replacement therapy, there is a lot of art, as well as science, to thyroid replacement therapy. Generally L-thyroxine or T4 (brand names Synthroid Levoxyl or Levothroid) is recommended at the lowest dose where the woman feels optimal and has a normal TSH, generally in the 1-2 range. Generics are

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very inexpensive and are fine for the majority of women. The brand may be worthwhile in especially sensitive women for whom variability in the bioavailability of generics is an issue. Always important is remembering to take the L-thyroxine first thing in the morning on an empty stomach and to wait at least a half hour before putting anything else in the stomach, including vitamins, iron, calcium, food, etc., since so many things can interfere with the absorption of thyroid.

Not recommended are forms of thyroid replacement that contain T3, such as dessicated thyroid (e.g., Armour) or are pure T3 (Cytomel). This bypasses the body's highly regulated T4 to T3 conversion, wherein just so much of T4 is converted depending on the body's needs at the time. Complications of over-replacement are more likely with T3, including cardiac dysrhythmias, anxiety, bone loss, etc. As with most everything in medicine, there are exceptions, and some women have unequivocal benefit from T3.

Titrating the dose of thyroid is an art. There is a difference between being somewhere on the normal range and being at the optimal point on that range. I often give women at least a few different doses to try for several weeks each to see if they can tell which feels "right." It is remarkable how much difference a small adjustment of thyroid hormone can make.

Three special circumstances are worth noting. In pre-pregnant and pregnant women, only T4 should be used because the fetus cannot use T3 and is dependent on T4 to T3 conversion for normal growth and development during the first critical 12-14 weeks of pregnancy. During pregnancy, thyroid requirements may go up dramatically, and so thyroid levels should be followed closely in each trimester. In some patient populations such as the elderly and those with heart or bone problems, high-normal TSH levels in the mid to upper range of normal may be advisable.

Thyroid levels should be rechecked and the history and exam be reviewed at least annually since everyone changes over time. More frequent evaluations are reasonable during times of more rapid change, such as in menopause.

In the end, it should be clear for each woman that she is at her optimal level for thyroid hormone replacement. If related symptoms exist, they can be addressed by other, non-thyroid, means, and the thyroid part of the equation can be put to rest.

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He received his BA from Yale (Summa Cum Laude) and his MD from Tufts (Alpha Omega Alpha) before going on to training at the Beth Israel Hospital, Harvard Medical School. He did a residency in internal medicine, a year of psychiatry, and his Fellowship in endocrinology before going on to be an Instructor of Medicine at Harvard.