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# HYPOTHYROIDISM AND THYROID HORMONE THERAPY - MY APPROACH

# ALWAYS FOLLOW THE PERSONALIZED, WRITTEN INSTRUCTIONS THAT YOU RECEIVE AT YOUR APPOINTMENT AND ALERT YOUR DOCTOR TO ANY POSSIBLE SIDE EFFECTS.

#### DIAGNOSIS

Instead of relying only on blood tests like the TSH, we look for evidence of low thyroid first through history and physical exam. Problems such as fatigue, hair loss, depression, dry skin, weight gain, cold hands, constipation, high blood pressure, high cholesterol, etc. can indicate low thyroid. I then use variety of tests including blood tests, urine thyroid tests and basal body temperature to confirm the diagnosis.

#### **TREATMENT & DOSING**

We usually use prescription natural thyroid like Armour Thyroid because it usually works best & contains all 4 natural thyroid hormones; T1, T2, T3, & T4. For maximum safety and effectiveness, doses start low and are gradually increased to achieve best results and avoid side effects.

Typical/General Dosing Guidelines: Using 30mg (1/2 grain) tabs. Start with  $\frac{1}{2}$  tab per day for 1 week (the tabs rarely break perfectly, but they work great if you use common sense). After 1 week, consider increasing to 1 tab as needed. After that, we continue to consider increasing after 2-4 weeks -- with careful monitoring and follow up -- to relieve symptoms and avoid side effects.

Thyroid pills should be taken in one morning dose (30 minutes before breakfast). It is best to Chew pills and "chase" with water.

#### SIDE EFFECTS AND RISKS OF THYROID TREATMENT AND EXCESS:

Anxiety, jitteriness, or heart palpitations - should be discussed immediately with me or your doctor. Dose may be too high, increased too quickly or due to insufficient cortisol or iron. With underlying heart disease, excess thyroid hormone can cause a heart attack & can cause abnormal heart rhythms. \*If you develop chest pain or a racing heart, please go directly to the ER – then contact your doctor/us. Osteoporosis may be accelerated by excess thyroid hormone. WARNING: Thyroid hormone can influence weight but is dangerous to use it as a weight loss treatment.

#### LIMIT THYROID BLOCKERS

- Avoid iron or calcium supplements within 4 hours of dose. It's OK to eat foods that naturally contain iron or calcium 30 minutes
  after thyroid dose.
- Avoid coffee within 1 hour of thyroid dose
- Beware of Soy May be OK if traditionally prepared (fermented). Soy Lecithin appears to be OK.
- Avoid or minimize Wheat and Gluten
- Avoid Raw cruciferous vegetables (broccoli, cauliflower, cabbage, etc.). These are fine if well cooked or fermented.
- Polyunsaturated vegetable oils such as soybean and canola oils.
- Stress -limit or control as much as possible

#### **HELPFUL NUTRITION**

- Selenium 100-200 mcg per day. Fish oil 2-3 grams per day (or consume oily fish).
- Iodine 150-1,000 mcg/day Fresh veggies & nuts for magnesium and potassium

### **RESOURCES and FOOTNOTES**

My website: see Thyroid info and myths @ www.darienmed.com Hypothyroidism: The Unsuspected Illness. By Barnes and Galton. The Broda Barnes Research Foundation at "brodabarnes.org" or call 203-261-2101 USPSTF Report on Hypothyroidism- Annals of Intern Med 2004; 140:125-7.

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## THYROID MYTHS

Myth #1: The TSH (Thyroid Stimulating Hormone) blood test is the only way to diagnose hypothyroidism or low thyroid. Facts: There is no perfect test in medicine—not the TSH or any other. For many years, doctors effectively diagnosed and treated hypothyroidism without the TSH test or any tests at all. They listened to their patients and examined them and made the diagnosis. Since then, a parade of tests has been developed. Each was considered the "right" way to make the diagnosis until it proved to be too unreliable and was discarded.

The "Third Generation Ultrasensitive TSH" is the modern standard for thyroid testing. Unfortunately it is not only imperfect and unproven, but there are well-known types of hypothyroidism for which the TSH test is irrelevant. For example, TSH testing is not useful when hypothyroidism is caused by dysfunction of the pituitary gland or of the hypothalamus (part of the brain,) or when hypothyroidism is caused by "tissue resistance" to the effects of thyroid hormone.

My conclusion: The TSH test is often unreliable and sometimes very misleading. To most accurately identify hypothyroidism, I am convinced that it is best to start with the approach that has worked for over a century: Listen to the patient and look for evidence of low thyroid function. If the patient appears hypothyroid, I order blood tests — including the TSH — but I also check basal body temperature, and check urine thyroid hormone levels. Then I interpret all test results in the context of the individual patient's condition.

**Myth #2:** Normalizing the TSH (Thyroid Stimulating Hormone) blood test is the best way to treat hypothyroidism. **Fact:** Many studies have shown that adjusting thyroid doses to make the TSH blood test normal leaves many patients with symptoms of low thyroid. World-renowned thyroid specialist, Sir Anthony Toft, MD, discussed this sad fact in 2002. In a speech to the British Endocrine Society, Dr. Toft reviewed some of the evidence showing that the modern TSH-centered approach was ineffective. He concluded, "...the treatment of hypothyroidism is about to come full circle"—going back to the approach that worked so well before all of our modern tests and treatments were invented.<sup>3</sup>

**My conclusion:** We should focus on reversing the low thyroid condition while avoiding side effects or signs of thyroid excess. When the TSH is normal but the patient continues to have low thyroid symptoms, it is often reasonable to try to reverse the hypothyroid state by increasing the thyroid dose and monitoring carefully for improvement and as well as possible side effects.

**Myth #3:** Thyroid treatment that reduces the TSH to below the normal range ("TSH suppression") has been shown to be harmful, causing atrial fibrillation (a heart rhythm abnormality) and bone thinning.

**Facts:** When thyroid hormone is given to a patient, TSH levels usually decrease. Some say that thyroid treatment that reduces the TSH to below the normal range causes bone thinning and atrial fibrillation.

Before the TSH test was invented, generations of patients flourished on doses of thyroid medicine that routinely suppress the TSH. To this day, patients with thyroid cancer who are given doses to intentionally suppress the TSH do very well on this regimen. In 2004, after review of the scientific literature, the US Preventive Services Task Force—a leading medical authority—addressed the question and concluded that despite the multitude of studies, there remains no proof that TSH suppression is dangerous.<sup>4</sup>

My conclusions: Of course, too much thyroid hormone can be harmful. Despite the lack of scientific proof, I believe that thyroid excess can cause atrial fibrillation and bone thinning. The problem is that the TSH test does not appear to be a reliable way to tell how much is too much. I prefer to adjust treatment until the patient is well and watch carefully for signs of excess. A century of medical experience and scientific evidence indicate that giving a patient enough thyroid hormone to make them well is a reasonable and safe approach. Blood tests, urine tests and body temperatures all provide additional information, but no one test should be blindly followed.

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# THYROID MYTHS (CONTINUATION)

Myth #4: Natural thyroid extracts are dangerous because they are not regulated and not consistent in dose.

Fact: Natural thyroid extracts such as Armour Thyroid are FDA approved prescription medications that contain all 4 human thyroid hormones (T1, T2, T3 and T4.) They are prepared in accordance with the U.S.

Pharmacopeia.<sup>5</sup> Synthetic thyroid extracts, such as levothyroxine contain only T4 and are also FDA approved.

Ironically, synthetic T4 preparations seem to have had many more problems with dose consistency than natural desiccated thyroid extracts. FDA records show repeated problems with potency and consistency for T4 products including Synthroid.<sup>6,7</sup>

**My conclusion:** There is no evidence that natural thyroid extracts such as Armour Thyroid are unsafe or any more dangerous than synthetic thyroid treatments. In fact, my experience is that natural thyroid extracts are much more effective at restoring normal metabolism and, therefore, very likely better for one's health.

**Myth # 5:** Once you start thyroid hormone, you become dependent on it. **Fact:** Taking thyroid hormone will not permanently shut down the thyroid gland. <sup>8</sup>

My conclusion: Suppression of thyroid function—which can occur during treatment—is only temporary and will not create a permanent dependency.

#### Thyroid References

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