Timing is Everything – the Right Labs, the Right Time, the Right Medicine

Learning you have a thyroid issue is never easy and getting the care you need is even more difficult. In my own thyroid journey, it took over 3 years to find someone who knew what tests to run and how to balance my thyroid, adrenals, and hormones all together. Luckily, my thyroid balanced out quickly with a combination of levothyroxine as Synthroid (T4) and T3 (sustained release liothyronine). I had previously been on Synthroid alone and had never felt good, had gained almost 30 pounds, and could not tolerate quick release T3. After having not one but two heart surgeries for arrhythmias caused by quick release liothyroinine (T3), I learned about sustained release T3, and it changed my life. (There are many different combinations of medications available. This is just what works for me, but it certainly doesn’t work for everyone.) By treating thyroid disease, I have learned, there is no cookie cutter approach to balancing a thyroid; it is as individual as the person!

So what labs should be run to properly evaluate thyroid function? When should they be run? What time of day is best? And should you take your medicine before labs? This article will answer all of those questions for you.

So as a provider, a traditional thyroid panel gives me little or no usable information about your thyroid or how well your medicine is working. We need to look at free hormones for the thyroid which are called Free T3 and Free T4 in addition to the traditional Thyroid Stimulating Hormone (TSH). The older research studies and traditional way of thinking was that TSH “was everything.” But what I tell my patients is, TSH is a stimulating hormone and that’s it. It tells us whether your brain is “yelling at aka stimulating your thyroid or not.” A high TSH means your brain is yelling at your thyroid because there is not enough available thyroid hormone. A low or suppressed TSH means your brain is not even whispering because there IS enough thyroid hormone present.

As a doctorally prepared nurse practitioner, I was trained to evaluate thyroid function based on the Free T3 and Free T4. T4 is the first hormone produced by the thyroid; it is then converted to T3 with the deidonase enzyme. As we get older, we produce less and less of the enzyme and many of us have trouble converting T4 to the usable form of T3. I tell my patients that T3 is everything! T3 determines how you really feel and whether or not you continue to have symptoms of hypothyroidism even on treatment.

Every day as a thyroid patient, I learned more about what all the thyroid influences in the body and what symptoms it causes when there is not enough thyroid hormone. If you have symptoms of fatigue, weight gain, dry hair or hair thinning or hair loss, brittle nails, constipation, or a host of other symptoms, or if you still have symptoms despite being on thyroid medication, you may need a healthcare provider to evaluate your Free T3 and Free T4.

Again, I was trained to look at steady state labs meaning you have not taken your thyroid medication in approximately 24 hours (the day before labs). You do not take medicine the day of labs, or you are simply measuring how much medicine you have floating through your blood. The time of day also matters, because for most of us, we look better in terms of hormones, first thing in the morning. You always want to make sure you are comparing early morning labs with early morning labs (apples to apples). If you have your thyroid labs checked early one morning and then at 4pm the next time, you can look like a completely different person. Most of our hormones tend to fall throughout the day. So you want to make sure the labs you are looking at are the most accurate representation of your thyroid hormones.

These labs are just the beginning of a proper evaluation for the thyroid. The thyroid is also interconnected with every other hormone in your body, so checking sex hormones and adrenal function is vitally important in order to be balanced.

If you have an autoimmune disorder (Hashimoto’s or Grave’s Disease), then checking the proper antibodies is also important. Once you are on medication for a low functioning thyroid, you also want to look at a Reverse T3 as this will tell you how you are using your medication and whether it is working well or not.

There is sooo much to learn about the thyroid! It is one of the most complicated biofeedback systems in the body and one of the hardest endocrine systems to understand.

Written/Opinions expressed by the author:

Dr. Sharolyn K. Dihigo, DNP, APRN, CPNP-PC, FNP-C, MHS  
 Doctorally Prepared Family and Pediatric Nurse Practitioner,  
 Mental Health Specialist & Hypothyroid Patient  
 www.NTXIH.com