Understanding Thyroid Metabolism: A Complete Guide Transcript

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Why Thyroid Medication May Not Fully Work

Have you ever wondered why your thyroid medication doesn't seem to be working? Your doctor prescribed you thyroid hormone replacement, but you notice you still feel tired, your metabolism is slow, maybe you feel chilly, you're not having good sleep, and your skin is dry, joints ache, cognitive function isn't great, Thinking that, hey, I'm now on thyroid replacement because my lab tests showed I have hypothyroidism, but I still have these hypathyroid symptoms.

They may not be as bad as they were before, But they don't seem to be getting back to where my normal state was. And maybe your doctor checks your hormone levels, like your thyroid stimulating hormone, TSH, maybe you're free T4.

How T4 Converts to Active T3

says actually your levels look pretty good so we're going to keep the medication dose where it's at. And so you're a little bit frustrated and you are wondering why do you not feel like these thyroid symptoms are going away.

Well there could be a very good reason and there's actually some insight I'm going give you on the genetics involved with thyroid metabolism. Now let's just review quickly in that our thyroid gland, this butterfly-shaped gland in our neck below the Adam's apple produces two main thyroid hormones T4 and T3.

and it produces a lot more of the T4 hormone, but it does produce a little bit of T3. And in the body, the t4 is actually metabolized by the liver and kidneys into the more active T 3. In our cell receptors, they really receive the four and T three, that mainly it's the three that gets into this cell has its effect on our genes and then has the benefits that you want like the metabolism, for example, improving energy, all the things I just talked about.

Genetic Variations That Affect Conversion

But here's the thing, we know that about almost half of the population have a genetic variation, also known as a single nucleotide polymorphism, or SNP, which is just a fancy way of saying the way your genes are compared to other people, making you more likely to have problems converting that T4 into T3.

So that's quite a few people. Now, if you consider thyroid medications are some of those colony prescribed medications in America and around the world, that means millions of people genetically can have There's other reasons too, you do need various nutrients to help that conversion.

For example, selenium is one of them. You could have other hormones are imbalanced which inhibit that conversation of T4 to T3, like if your stress levels are really high and your cortisol is high.

And there's others reasons as well. But right now let's focus on this genetic susceptibility. And so this is why it's so important that you have your T3 levels tested with blood work.

Testing T3 and Considering Treatment Options

You can have total T-3 tested, your free T 3 tested. And just see is your level on the low end of normal, is it actually low or deficient? Because again, most doctors don't check the T three level.

So this gives you an indication why your symptoms aren't resolving or resolving fully. This is if you need thyroid home replacement, then A doctor can prescribe you T3.

In the regular pharmacies, in the standard pharmaces, the medication is known as Cytomel, also known Liolthironine. Compounding pharmacys have T 3 as well.

I generally prefer the compounding pharmaceys because they can make the T-3 into a sustained release form. When you take T three as a medicine, it goes into the system quickly and leaves the systems quickly too, known also as the half-life.

And so in about three hours, four hours at the most, the T3, a lot of it is out of your system. So sustained release helps to keep that T three in your systems longer, helping the metabolism, and helping energy, that cognitive function, all these types of things.

If you're struggling with the thyroid medication, you still have symptoms, look into the t3 in terms of this conversion problem that you very well may have.

For more videos on thyroid and other hormone balance issues, Look at my YouTube channel for many other videos.