

Who do we identify as needing an hypothyroid workup? How do they come to us? Well, I like to pivot a little bit and ask you who are watching me, how many of you have thought at some point in the past that you had an underfunctioning thyroid? And was wondering about getting your thyroid levels checked? Well, what drove you to that is very common and many people feel-- even me a couple of years ago I thought so-- so what brings them to you.

I'm going to tell you right now. It's one of those diagnoses that I have patients come to me and ask me to identify if they have. And one of those diagnoses that they almost feel disappointed they didn't get because they're looking for reasons for weight gain, depression, fatigue, hair loss-- things that mimic menopause and many other conditions.

But they're looking for a reason because then there's a way to treat. Now we take these patients seriously. Many of them will come with subjective changes and that's the biggest thing-- usually weight gain, depression that's fairly new onset, maybe constipation that looks like IBS-C, different kinds of things. There's many of them, they're very ubiquitous and there's a whole list of them that look like so many other things. And you're going to have to work them up but always keep hypothyroidism-- so you think fatigue, hypothyroidism is one of the differentials. And certainly if you have hypertension that's difficult to treat, dyslipidemia that's there, I keep pounding on the cardiovascular sequelae.

And those who might be in urgent care, I cannot tell you during my 20 years as an intensive and acute care nurse practitioner where I was-- a patient was identified to me as a possible hypothyroid, patient with hypothyroidism undiagnosed because the thermometer didn't work, temperature's down. So that's also one-- patients are feeling cold in the middle of the summer. Here in rural Virginia, that's very unusual. So they'll come to you in different reasons and you and you work them up, and that should always be one of the differentials. And I think we are doing that.

When we have a patient we're working up, the main thing we do-- I think when you're just doing annual work ups, people do a TSH. And has been, for 40 years, the gold standard for identifying, not diagnosing, thyroid disorder. It doesn't diagnose, it identifies that you may have problems with circulating levels of thyroid hormone. That's important to understand. You do not diagnose it with just the TSH. So it can let you know the TSH is coming up it means in response to having low circulating levels of T4 and so we then do a pre-T4 level. That's general what the guidelines are, you look at a TSH, if that's climbing up we will then see-- we expect to see that TSH is kicking out thyroid stimulating hormone has being kicking out in response to low circulating levels of T4, which is picked up by a genetic set point in our tissues and in the brain. So we do that to identify it and those are the main ones that we use.

And then if I suspect anybody has any other autoimmune disorders-- early on, if I see there is an impairment, that the T4 levels are low, TSH is high, I make sure I get thyroid antibodies. It's very important for a number of reasons. One is that people who have actual autoimmune thyroiditis they progress faster or farther-- disease may progress faster and farther than those who have maybe nontoxic nontoxic nodular goiters or other reasons for having a lower, down regulation of thyroid function.

So I look for-- TPO antibodies is a big one and that's going to be over 95% will have a positive anti TPO antibodies. There is a subset, they look for all the world to be, say, Hashimoto's with a mild goiter. And they just by an ultrasound-- you don't need an ultrasound for these, but these patients look like they have Hashimoto's or an autoimmune disorder. Those people, then I would look at thyroglobulin antibodies, but you don't usually need that. It's usually just an anti TPO, which will take care of it. So that's laboratory diagnosis and hypothyroidism is diagnosed based on that. Currently that's what we look at. So you have elevated TSH, decreased T4.

And so then you have to look for treatment. Before you go any further-- what's the target? What are you aiming at? And sometimes we get so fixated on numbers and labs, we're missing what's really going on. And it's so unique with this particular hormone-- more than insulin or any other endocrine hormone-- is how thyroid affects the body in massive systemic ways.

So when we look at it the goal is and should be to alleviate symptoms of the disease. Number one. Eliminate subjective symptoms of hypothyroidism-- this is a quality of life issue as well. And then there's number two is being able to prevent or minimize the morbidities and complications of hypothyroidism. Those are the first two goals because sometimes how patients feel and/or present with the lab biomarkers we have, which is TSH pre-T4 and even looking at T or free T3 does not show the whole picture.