

What is desiccated thyroid hormone? It comes from porcine. It is a combination of T4/T3. The thing to be understood and look at is that critics and those who throw a jaundiced eye is particularly in my intervene colleagues looking at it. It's because it's in a 4 to 1 or 4.1 proper in 2 to 1 ratio. Where in the body T4/T3 is about 14 to 1 ratio.

But studies have shown, when you have to give someone T3, actually have to give it in a little bit super physiologic doses. And that, makes people a little bit nervous because you're worried about metabolically active hormone causing more thyroid toxic doses or push them a little hypothyroid.

So, that's how we look the evolution of that, and then we look at where we are today, where people are looking at again. And we have several varieties of DTEs out there. They're not FDA approved. We'll talk more on how we can prescribe and order it, but because the reason they're not FDA approved because they started before FDA, and started to see the benefit.

So some of these things aren't approved. Don't need FDA approved it's been grandfathered in, and that might change as more studies are going on with that. So, what we'll see is there they have consistency now of the actual dose that's in there. And what we're seeing all that's available now the DTEs, they all have the same 4.2 to one dosing. It's generally similar, and that's very important to know.

We know the cost isn't better for that. And we know there's reasons we can get into why I actually will look at that particularly in the primary care mean, I really encourage you to look at this. I think it's a little bit easier as a shift to either we'll talk about how you can maybe add on to your little thyroxine that they're on with a little bit of a DTE or how you can completely switch over to DTE fairly easily in a lot of patients that we see now.

We'll talk about the precise way of doing that in a moment in another section here. But I do want to talk about why it's important again that you're hearing us talk about an item about quality of life and how people feel. There has been studies that actually look. There's been size out there looking at replacing drug combination therapy for patients who are poorly, not responding getting the full benefit of the thyroid hormone. They just need that actually. They obviously need T3.

When they measure and assess looking at combination drugs with the synthetic or DTEs, along with compare it with levothyroxine or LT4 monotherapy, they all get you to go. They can get you that lab goal. And a lot of the studies have gone and looked at say, well, there's no difference in some of the symptomatology the patients say they use to a short form to 20 scores. So they're looking at neural cognition scores that are just a little checkpoints to see how they are.

But yet we can't find patients who take DTEs still prefer DTEs. They feel better on it. It's a subjective thing, it's perception thing, it's a quality of life thing. There's one study I do want to mention and I'm familiar with this because I actually have patients in the study. During my tenure as a senior nurse practitioner at the Walter Reed National Military Medical Center department of endocrinology and metabolic medicine a mouthful.

And there was a study back in 2013, which actually was looking at, finally looking at it was a randomized crossover control study. I mentioned this, is only 70 patients but I mentioned it was interesting. It was thought provoking the results. It was a crossover study, they had patients of levothyroxine. And what they did is that half the patients were put on DTEs armor I believe they used, and then the other half stay on LT4 monotherapy, levothyroxine.

Then after 16 weeks they switched, and did the same thing with them. Then they assessed and again, they got them to target goal with the lab goal was with TSH. They got them all these subjective markers that they did and check points, and questionnaires, and how they are came there. But when it came, there was no significant, statistically significant difference, and this is the take up.

And this we're seeing a lot of some studies are showing this when they do these comparative analysis. And even with synthetic combination compared to this DTE what they found, of all those patients, remember they were started on LT4, 49% preferred to stay on DTE. Only 18% wanted to go back to levothyroxine and 33% didn't care.

Now this is astonishing, 49%. Now when you look at the markers the studies and the tests that they do, the psych tests and everything was saying one thing. There wasn't that much more when patients gave you their preference, it is perception, it's how they perceive themselves of feeling, and that is not viable. We cannot assess it, and we all know this.

We know perception changes when your temperature is high or low. The world, our perception is totally different in that kind of value. We don't know what's going on in the brain. But something with the DTE we don't know if it's the type of tea fort's is, and what it is, or how it is, or if there is some different. It's a different kind of component. It's made up a little differently than you do in synthetics. If that makes a difference to perception.

We don't know we're not there yet, but again we want to alleviate patients symptomatology. We want to do it safely, and as long as we do it safely then I say go for it. So that's an option. We've got options at there college, and we're here to help you with making those options safely and accurately.