Introduction to Thyroid and Libido

Hey, everybody, welcome back to another episode on our sexual health summit. I am your host libido expert, Dr. Diane Mueller. And I'm so excited about our next person we're interviewing here, Dr.

Amie Hornaman is a thyroid expert, a testosterone expert. We're going to talk about the links of these and libido and more. So welcome to the interview, Dr. Hornaman Thank you for spending time with me today.

Oh, hi, Diane. Thank you so much. I'm excited. This is going to be just an absolute, absolute killer summit. So much information people need. Yeah, it's really true. It's really true.

It's a taboo topic, right? That's not talked about as much as we need. And we're really, you know, getting deep into these topic, pun intended. So let's start right away with you telling me and telling us a little bit about thyroid, about how you got into working with thyroid and helping people with thyroid issues.

And I know you've had your own personal journey, so you want to just kind of launch us into why this topic is passionate for you, and then we'll link that, start linking that to sex hormones, to libido and more.

Absolutely. So we have to remember the thyroid is the master gland. So that's controlling every aspect of your body, including your sex hormones. And it's literally controlling our metabolism, our drive, our brains, our motivation, our sexual energy, our desire.

We always kind of link that back to hormones and due to sjöström, which we're going to talk about today, but we have to start with the thyroid because that's the master gland.

If that's not working, literally your entire body doesn't work. So this is where we're getting the symptoms of weight gain. And you can't lose weight.

You have no motivation. You feel like you're losing your brainpower, memory loss. I've had some patients say I'm getting early Alzheimer's, hair loss, constipation on and on.

Personal Thyroid Journey and Diagnosis

Every aspect that you can think of with your body slows down when the thyroid goes low and slow when it goes hypo. Now I figured out that I had a thyroid problem as well.

Was through a pain to purpose story. I'll be really brief. I was competing at the time. I was doing fitness modeling. I was competing. I was I was doing a very strict diet and exercise protocol and really taking care of myself.

And this is back in my twenties. So let's rewind many, many years back my toes and the scale that should have been going down just biologically speaking, you know, less calories and more energy output at the gym scale should go down.

You should lose body fat. The scale was going up and up and up and I mean 25 plus pounds up where it just didn't biologically make sense. So I did what we all do.

I went to my doctor and in fact I went to six different doctors who all told me everything is fine. You're normal, eat less and exercise more. It's all in your head.

And I mean, I got every answer, any excuse under the sun except what was wrong with me and why my body was rebelling against me. Now, the weight was really weighing heavy on me, but I had no desire to work.

I had I had lost my libido in my twenties. I had lost my hair. I was fatigued all day long. And really, I mean, that's not how life is supposed to be lived at any age.

It doesn't matter whether you're in your twenties or your fifties or sixties, you should be walking around like a zombie, depressed and miserable, fat, tired, all the things.

So the seventh doctor finally diagnosed me and that was a functional medicine doctor. Saved my life, did all the right tests, did all the right treatment, and did not give me the cookie cutter.

Standard Protocol, conventional medicine treatment. We went outside the box, slightly outside the box. But using things like bioidentical hormones, using things like thyroid hormone replacement therapy, using the right supplements for support, and that's what turned my life around.

So that's what catapulted me into helping others, because the frustration I went through was so great. I knew, I knew there were other mainly women, but other people going through the same frustration.

So that is why I'm here doing what I do now. Thank you. Yeah, I like the orientation to the pain, to purpose, you know, kind of thing. And I think a lot of us get into this profession because of that.

Right? So let's start linking people to why since this is a sexual health summit. So I think that story probably resonated with a lot of people at scale moving when you're doing everything right and it turns out to be the thyroid.

We see this huge link, right? Because a lot of people think about thyroid and think about weight like you mentioned, or they think about constipation or hair loss or some of these other types of things.

But there's a huge link as as we know, between thyroid and sex and sexual health. So can you start for us making that link of that symptom of the low libido, the low sex drive with thyroid abnormalities?

Definitely. So when we start with the thyroid control link, let's talk about the different things controlling blood flow and heart rate. One thing that we'll see with hypothyroid patients is a very low heart rate.

And I joke, I say you're not Lance Armstrong walking around with a heart rate of 55. You're hypo, you're hypo low and slow. Whereas a normal resting heart rate for, we'll say, moderately active.

The general population, non true marathon athletics individuals would be around, you know, 70, 65, 75, something like that.

How Thyroid Function Affects Sexual Health

So people that are walking around with a low heart rate of 50, 55, their circulation is down. Now that's going to effect sexual performance. As we know, increasing circulation and through a variety of mechanisms.

This is what this is what Viagra does. Folks were increasing that circulation to the penis. So increasing circulation is going to help. Decreasing circulation is absolutely going to hurt.

So with hypothyroidism and males, we do see an earlier onset of erectile dysfunction with females not getting that circulation, not getting that blood flow to your genitals.

That is going to decrease sensation. That's going to actually decrease libido because you don't even feel anything down there. What I hear from my ladies is like, Oh, I'm getting that tingle back right when we start optimizing that, because they actually start to feel that blood flow in that circulation increases the heart rate increases body temp increases in a good way, and then we can move into the effect on the sex hormones themselves.

So with the thyroid being the master gland up top, what I often see with hypothyroidism low and slow thyroid function is a downregulation of the sex hormones.

So this is where we'll see early onset menopause with ladies going into perimenopause and menopause are in their. Thirties, late thirties. Very early forties.

And that's not even connected to a genetic predisposition like mom went into early menopause, but I know it's connected to the fact that your thyroid is so low and slow and not functioning that the signals to the sex hormones from the pituitary, from the hypothalamus into the testes, the gonads, the the ovaries, your adrenal glands, I mean, all of that.

It's like the communication pathway. It has blips in it. It's really slow. It's like think about being back in the in the days of dial up, right? Your dial up computer, you go, you start it, you go grab a cup of coffee.

It's ringing. You come back, you click another button, you go. And that is the whole connection when the thyroid is low into the sex hormone balance. So as we move into talking about testosterone, there is an effect on testosterone levels and males and females.

There's there's a correlation. There's there's an effect on dropping that test level because of low thyroid function. And the third component that I think is worth mentioning, and I talk about this when I talk about low libido because I hear low libido as a symptom so often from mainly maladies, mainly maladies, I say, well, here's the thing.

We are very mental creatures and in order for us to let's just be honest, in order for us to get naked and feel confident in our own skin, we need to be the weight.

And I'm not saying weight is everything, but we need to be the weight that we are comfortable with. So when your body is rebelling against you like mine was, and I was literally carrying an extra 25 pounds, that it wasn't me, that wasn't who I was.

I wasn't used to carrying that much extra weight. It came on very quickly. And I think the progression that goes along with that, the the lack of confidence, the drop in confidence that goes along with that really starts to weigh heavily on on the mind.

I don't care who you are, male or female, it's going to weigh heavily on you if you don't even want to get naked and pass by the mirror and see yourself, how are you going to want to get naked?

Be with another person, be with your partner, be with someone else? You just you feel all closed in. And I think that's a huge component of libido. And I know that you got into the mental aspects of of sexual health because when we are depressed, when we are low, when we are frustrated, when we are searching for answers and not getting help, when our body is rebelling against us, that's going to put us in a mental state that there is no way that we're thinking about sex and the body just from a just from a biological standpoint, when the body is also in that we'll say reactionary, inflamed state.

Because if you have hypothyroidism, if it's autoimmune, if it's starting to affect your hormones, it is starting to affect your insulin levels. That's going to be an inflammatory state.

When the body is in that state, our bodies are so smart, it starts to shut down what you don't need. What don't we need when we need to heal? You know, think about laying in in the hospital bed, right?

You injured, you broke your knee. You broke your arm. You need shoulders or whatever. You were in a car accident, bike accident. You're laying are you thinking about sex? No.

And your body knows that you're not you're not focused on work. You're not thinking about sex. You're not you know, even the body goes. You know what?

They don't even need to grow their hair right now. You can shut down hair growing processes. Let's shut down circulation to the genitals. We need the blood to go where it needs to go to heal.

So all of that, when you think about just those 3 to 4 aspects of the thyroid. My God, yeah, you better bet your butt that it's going to affect your sex life and your desire and your drive and your ability to perform 100%.

Yeah, I there's so many things you said there that I think are worth commenting on. And the the thread that I really want to tie everybody back to is, you know, you mentioned circulation and body image and depression and mental and all these different components.

Right. And and you're right, there are on the summit, we are going into some of those things deeper. But one of the things that I really want to just emphasize and what you said that I think is so brilliant is as as functional medicine practitioners.

Right. We're always coming back to the roots. And when we're talking about the root causes of all these things, it's like we have libido as the symptom, low libido as a symptom, and that could be caused by low circulation and mental health abnormalities and body shame and all these different components.

And sometimes the root of all those things, like a further step down is the thyroid, right? So this is intricate plays that we're linking. All of these other different components through is really through the thyroid.

Understanding Thyroid Lab Testing

So I really appreciate how well you put that together for everybody. And I think we should go next into a very common thing that I know you get asked all the time in your clinic, as I do I, which is why I might run, which I think most of our listeners know what that is.

But just to clarify, that is a thyroid is a brain hormone, right? So I'll let you explain that a little bit more. But the question I think we get asked a lot is when my test was run, my doctor said it was normal, so it's not my thyroid.

So can you talk to us more about that? Yes, 100%. So DSH thyroid stimulating hormone. It is a brain hormone like Diane said, it is not a thyroid hormone not produced by your thyroid gland at all.

So looking at it, you know, it's a great one moment in time snapshot if it's super high, if it's screaming at us, then that tells us, hey, this person has hypothyroidism, low thyroid function.

But if it's not, if it's actually it can actually be in functional medicine, optimal range of less than two. That still does not mean there's a double negative here.

It doesn't mean that you don't have a thyroid problem. Right. You could still have a thyroid problem. So that's why we want to test further. We want to look at what is your free T3 and free T4.

T4 is inactive. This is a thyroid hormone. T3 is the active thyroid hormone. We want to test both thyroid hormones to see how your thyroid is producing those important hormones that it needs to produce.

Let's see if it's doing its job. Then we move on to reverse T3, which is kind of the anti thyroid hormone. I use the analogy of a bouncer. It's a bouncer at the club.

It's a bouncer outside your cell door. 23 that active thyroid hormone that's going to come in and give you a good metabolite exam and let you poop every day and light your brain on fire and improve your circulation and improve your sex hormones.

It can't get in. So now we don't have we have the the active thyroid hormone not even able to do its job. Reverse T3 is a very important marker. And then we want to test to see if you have autoimmune.

So we test TPO and TG antibodies and that tells us do you have an autoimmune component here where your body thinks your thyroid gland is a bad guy and is attacking it?

Or is this just hypothyroidism or thyroid gland crap the bad? And maybe it was from over exercising over dieting, medication that you're on, radiation, chemotherapy, something like that.

So we need to find what's causing the thyroid problem, but then we have to tailor that treatment to fit exactly what we see in those labs paired up with your symptoms.

Yeah, that's beautiful. And for everybody listening, I think the big thing also to understand that that Dr. Amie is talking about here is like just because these things are in your blood, right?

If you have a free T3 in your blood, doesn't mean your it's getting inside the cell. It doesn't mean it's doing its job. That's where that bouncer analogy is coming in.

And so I think the big take home message is don't just look at these basic levels and think you're fine in functional medicine. That means those things like, you know, so much of the time, a huge percentage of the time.

And I would argue like most of the time doing those very basic tasks, we miss things. And then you think your thyroid is not the cause. You think that you know that's not the cause of the low blood pressure, the libido, all the things we're talking about.

And you can miss the elephant in the room, so to speak. So that's how we know a thyroid is low, right? So that kind of covers the lab testing. Now, I want to go.

You mentioned a little bit in that whole overarching thyroid libido connection of everything. And because there's so much data on testosterone being a sex hormone that supports libido, it's not the only one, of course, but it is a predominant support as a sex hormone for supporting libido.

And there's that link between that you kind of hinted at earlier between libido, thyroid and testosterone. So can you tie that together for us a little bit more and go a little bit deeper into testosterone and how that is interrelated with thyroid?

Absolutely. So we talked about the thyroid being the master and having control over all the sex hormones with testosterone. It is produced in the testes, the ovaries and the adrenal glands.

So because the thyroid has an effect on the adrenal glands and every every organ system, every gland, every organ system in the body, we naturally see a downstream shut down of adequate production.

I wouldn't even say a shutdown of production. It's just a shutdown of adequate production. It's very rare that we'll have, let's say, a male coming in and have zero testosterone.

No, no, no. He'll still be in that really huge standard lab value range, but he'll be called normal by conventional medicine. And then us in functional medicine, we'll look and we'll say, oh, my gosh, you are low.

Thyroid, Testosterone, and Libido

So when we're looking at testosterone and we'll break this down by the sexes, let's start with the guys, because I mentioned that when we're looking at testosterone levels and we look at that standard lab value range, oh, you poor guys, it goes from like to most labs.

It's sort of like 225 to 50 and we'll go up to 900, 2000, 1100, maybe even 1200, if you're lucky, optimal. In my world, 800 or above. I don't even let my 75 year old father walk around with the testosterone of a 400.

But his doctor would tell him he's totally normal. Right. So testosterone is the get stuff done hormone. It's what gives us the motivation to have sex.

Go to the gym, do a fantastic workout, come home and work for 8 hours, run in your business. And for the ladies,

getting the kids to school, running your own business, you know, getting stuff done, taking care of yourself, getting to the gym very, very important for all things, including sexual function for the ladies that standard lab values range.

Also a joe goes up to 45. So ladies, you are getting cut off on the standard lab value range even before you hit the bottom of the barrel. Optimal in my world.

So I like my women. 50 total testosterone, 50 or above. So if you're getting cut off at 45, guess what happens if you actually come in optimal? Let's say you come in with a total testosterone with 65.

Good for you. You're going to get flagged high and your doctor is going to tell you that you have too high of a level of testosterone. So to even look at testosterone from the conventional lens, no, you can't do it.

You will get the shaft every single time. Don't even bother. You have to look at testosterone levels from the functional lens and that's where we start to see that decline.

I will have men, male patients in their late thirties, early forties actually I I'll even mention I had a male patient, there was 22 having erectile dysfunction could could not at all perform were thinking what the heck is going on here.

Well sure enough he had a thyroid problem. He had Hashimoto's and very low testosterone. I mean, his testosterone levels were, I want to say maybe 300 again enough that conventional medicine called him normal.

A poor 22 year old walking around with a testosterone of a 300 and he can't get an erection. And you think that that's normal? That is not normal. So he started fixing his thyroid.

We use very, very basic supplementation actually for his for his testosterone levels. And now they're up to seven, 800 and he's feeling great. So that's the perfect example of how treating the thyroid actually helps improve testosterone levels.

Now for people a little bit older, I mean, your testosterone levels are naturally going to decline after the age of 40. They just are men. I mean, you're starting even again after the age of 30.

So sometimes testosterone replacement is required for that when we talk about treatment and we get into that. But you can see how there are there's a multiple there's a multitude of different ways to address this.

Sometimes we are starting with the thyroid addressing that and then all of a sudden we'll see these testosterone levels just come into that optimal range beautifully.

And then sometimes we have to do both where we we do address that thyroid function that's low that we're seeing and then we come down here we go. Okay, we need to do something with this test level, male or female, whatever you are.

Sometimes it's testosterone replacement therapy, sometimes it's supplementation to support just kickstart your own natural production. Sometimes it's it's about really addressing stress and the adrenals because that will tank the tank the thyroid and tank testosterone levels, like you said, Diane's about finding that root cause and dialing in the protocol that's going to address what we see.

Yeah, yeah, that's so true. And another thing that I think is going to come up in your listeners and because I work with people in a similar way, I think a lot of us in the functional medicine have similar references rate like reference ranges, right?

Where it's like symptoms go away typically and people feel their backs when we're in those high levels. And one of the scariest things that I think people have, especially men, is prostate hyperplasia, right?

What happens to my prostate? And oftentimes if they take this information, if they have a normal testosterone level and I say normal in air quotes, for those of you that are not watching this via video.

Right. Because, of course, our normal is, like you said, much higher levels. But let's say they have a conventional normal range in this three 400 type of zone you're talking about.

And they get put on testosterone replacement therapy often times. And taking that to a conventional doctor, sometimes there can be a lot of fear that gets put into people as around like, oh, you should be on testosterone, you're going to get hyperplasia.

That's going to cause prostate problems, right? So how so? I want to make sure we cover that. So can you talk a little bit about that for us? Absolutely.

So I see this every day, every day in conventional medicine. It actually happened to my husband, too. And, you know, I think throughout the years, very similar to what we can talk about with the Women's Health Initiative study, how that put the fear of God in women for hormones and oh, my gosh, hormones are going to cause cancer. Right.

We see the same thing with men and testosterone and the prostate health. There's so much misinformation out there that you really need to be working with someone who has educated themselves literally in the last 5 to 10 years.

I mean, there's a lot of information out there that that clears that path, that there's no really a very low, very, very, very low relationship between testosterone replacement therapy and any kind of prostate hyperplasia.

PSA is going up. It can have a small effect, but even if that PSA starts to float up a little bit and we know the man is on TRT, we just watch it. We really don't worry about it too much. We just watch it.

So in conventional medicine, though, again, they would see that PSA being flagged high with a little age next to it. It's all red. And then they freak out and they pull.

Whatever they have been taught is the cost and they pull the testosterone. Okay. What happens? Well, now, as a man having low testosterone outside of the sexual function, now you're at a greater risk of cardiovascular disease.

Now you're at greater risk of depression. Type two Diabetes, obesity, visceral fat, loss of muscle sarcopenia the list goes on and on. So it's like, Well, do you want to roll the dice with a little prostate hyperplasia that may or may not be true?

I mean, the literature maybe is showing, you know, one study out of every five says, well, yeah, maybe testosterone causes that. And then the other four studies say, no, it doesn't.

There's no no correlation whatsoever. Would you rather roll that dice or do you want to roll the dice of heart disease, obesity, type two diabetes, you know, cardiovascular on and on and on and on.

I'm going to I'm going to risk the prostate hyperplasia as a man. And same with women. I'm going to risk maybe some, let's say, androgenic symptoms. Okay, we start giving you testosterone, you get a little pimple here and there, you get a little dark hair here and there.

But but your libido is back. You had the best relationship with your partner. Did you ever had in your life? You feel like a rock star. You're going in the gym, you don't look like a bodybuilder, and then you're getting a little bit get a little bit tighter.

You can start to see your definition.

Testosterone Therapy and Prostate Concerns

You're losing some body fat. You just went up £5 in your weights. Yeah, I'll take that, too. It's about hormones are anti-aging. When we bring in hormones, they actually age us in reverse.

We're replacing those hormones that were once there when we were young. So for men or women getting scared by their conventional doctor, I would say, look at a 15 or 16 year old.

Does a 15 or 16 year old have breast cancer? They have more hormones than we do. Does a 15 or 16 year old have prostate hyperplasia? They have more testosterone than you will ever see in your life.

And the answer is now. So test that testosterone and all the hormones. Give us life. Give us youth. Yeah. Thank you for that. I think the thing I want to add on to what you said that's so important.

I really appreciate you bring up the Women's Health Initiative because that's a situation, it's a study. There are studies that we can basically probably talk all day on and pick apart and dissect and all of that because of all the misinformation that came out of it.

And a lot of these other studies you're mentioning with testosterone, a lot of these studies are correlative type studies. Right. So a lot of these studies are not causality.

If it's not, you give testosterone and all of a sudden every single variable is controlled so that we know X causes. Why, right. It's it's correlation.

So that's just another thing to make sure people are understanding. And I really appreciate you, you know, kind of with the risk analysis that you're saying which one is a better risk?

And in the end, it's also a combination of getting your thyroid right like you do in your practice and getting all these other variables right, which also will lower the risk of those, you know, potential, any sort of risk that could be coming from that if some of the correlations do have some level of, you know, of, say, accuracy to them.

So I think that's a really important thing to bring up as well. And we are getting low on time. I want to make sure we kind of end with beyond how people get a hold of you and we'll talk about that.

But besides that, before we go there, just talk to us a little bit more about maybe some actionable steps. So we have the actionable steps that people are getting out of this.

And I know you guys. I know we gave you so much information. You're probably going to want to go back and listen to this again and again. And remember, you can do that.

You can sign up to to buy these and get these again and again so you can write down all those labs, those lab values. I think that's really important for you guys to make sure that you are taking this to your doctors or you're going to see Dr.

Amie and really saying, hey, these lab results you get your get in the reference ranges are not accurate that have been you know that have been explained to you so let's say actionable step number one is getting all the lab tests done, the right lab tests using the reference range.

As you described, you mentioned test natural replacement. What are some other actionable steps that you would offer to people as a ways of starting to work on their thyroid, work on their sex hormones?

And of course, in relationship to that, since this is sexual health work on their sexual health as well. Yeah, absolutely. So just like you said. Yes, Keystone Gas, get all the testing because that's you being your own patient advocate and you having that knowledge in your hands to see exactly where you fall in that optimal range.

And we mentioned some numbers on here. Absolutely. Go back and listen. But there will also be a part of the free gift that we're going to give you. So if you didn't catch anything, absolutely, it will be in there.

Number two would be lift heavy, lift heavy stuff. Because when you go, there are studies and these are the good studies. Right? These are the bias studies.

Several studies that show that going to the gym and lifting heavy, picking up a weight that maybe you fail at when you hit that 10 to 12 rep mark. You know, we're not talking about Jane Fonda workouts where you're throwing around these £2 weights ever were resistance training lifting heavy to the point of failure at at an 8 to 12 rep range stimulates the body to produce more testosterone and produce more growth hormone.

So when you leave the gym after a heavy weightlifting session, that means you're not spending an hour on the peloton or the elliptical or on the treadmill.

You're lifting heavy that will stimulate your own natural production.

Action Steps for Hormones and Sexual Health

So whether you're male or female, you're going to get that boost in testosterone and in the boosting growth hormone are anti aging hormone actually helps again with inflammation, it helps with blood flow, it helps with just anti-aging.

Our skin, our longevity, our fat loss, our muscle gain. So lifting heavy is something so simple that people can do. That is number one. Number two, well, that's number two.

In addition to the testing, number three, deep sleep, sleep, sleep, sleep and sleep. We overlook it. And I'm guilty of this as well. I am. I mean, I've spent years making excuses, especially as an entrepreneur, of why I can't get good sleep, why I can't go to bed at 10 p.m.

right. Why I need to stay up and finish this project. But the bottom line is everything suffers when we don't sleep. So lack of sleep and our best rest and restore sleep time is between 10 p.m.

and 2 a.m.. When we do not get that deep restful sleep, we're at an increased risk of obesity. We are increasing our inflammation, our whole systemic full body inflammation.

What is that going to do is going to shut down our thyroid production bar is not going to work as well. We're walking around in this inflammatory state.

We haven't rest and repaired anything. No cellular repair, no mitochondria repair. We are we start to gain weight. You become more hungry when you don't sleep.

Your brain's not going to function if your brain's not functioning. Are you going to want sex? No. Testosterone is going to start declining. Growth hormone is going to start declining.

Insulin will increase because that insulin is in that response to almost moving into a type two diabetic state, which we have shown for lack of sleep.

It's just detrimental. Just take our word for it. It's detrimental to not sleep. So just doing that simple, simple behavioral change of improving your sleep, hygiene habits before bed, the blue light blocking glasses, shutting off your phone, shutting off the computer, maybe reading a book, for goodness sake, let's go back in time and actually pick up a book that is enough to reset your body, to decrease information, to help improve your everything, your hormonal signaling.

So absolutely all of these tie back to you're sitting there thinking, well, how is lifting heavy and sleep going to improve my sex life? And it ties back to everything that Diane and I just talked about, that the thyroid being the master gland, allowing that to work properly on its own.

And this is outside of treatment. This is outside of medication, this is outside of supplementation. This is something that is free that you can do go and lift heavy stuff and get good sleep.

And those two behavioral changes alone can have a huge impact on your body. Yeah, I think these are great

things to leave everyone with because they are so actionable and sometimes I think it's so exciting to like get on the new HRT or get on the new supplement or try these sorts of things.

And sometimes just these basic things you're right, like the sleep so easy to overlook it and there's so much research and data, as we both know, showing the like huge, huge, huge impact on so many areas of the body of the mind of hormones, libido and more. So.

Thank you so much for your time today. I want to wrap up with letting everybody know where to get a hold of you. You guys. Dr. Amie's information will be in her speaker bio on the summit web page.

Then make sure you look at that for any information about her clinic. But is there any information you want to make sure we cover? I know you're giving people away.

You're giving something away for everybody. So I want to make sure we announce that. What do you want to leave everybody with? Yeah, absolutely. I mean, just diving into more information and learning about your health.

I'm a huge advocate of being your own. Your own advocate. So dive into my thyroid fixer podcast that's on all podcast platforms. And I mean, we have about 350 episodes.

So yes, we are going deep in the areas of testosterone and hormone replacement and bioidentical hormones and thyroid. I mean, all things thyroid. We talk about libido, we talk about way, we talk about all the things.

And then, yes, the free gift that we're giving away is my quickstart course. So this is actually going to take you by the hand, lead you through all the testing that we just talked about today, the optimal lab value ranges.

And it's going to give you things that you can do. So maybe it's a conversation with your doctor about what you have learned about your labs in your own body.

Or maybe it is supplementing or maybe it is taking that next step and doing something like bioidentical hormone replacement therapy. It's all in there.

It's a big gift, but it's going to empower our you guide you help you to improve this aspect of your life with thyroid hormones ten, ten times. Amazing.

Thank you for that. So generous. I know it's going to help everybody so much and really appreciate your time and expertize today. Absolutely. Thank you.

Thank you, everybody. We'll see you on another interview.