Introduction to Reverse T3 and Thyroid Conversion

Hello, everyone, and welcome to the Reversing Hashimoto's Summit. My guest today is Ross, incredible patient advocate. Hugely. I mean, just amazing in the thyroid space.

A boatload of knowledge. Author of the paleo Thyroid solution. She has an amazing course on the ultimate thyroid course. You can go to El Rascon to learn more about her, but.

But longtime friend, longtime colleague, we have had amazing talks and podcasts about the thyroid and what I really wanted to focus on today, because this is this is her area of expertise, because she went through it the same way I went through it, conversion issues, especially surrounding reverse T3.

So we're going to go deep today. But Elle, thank you so much for jumping on. Oh so glad. Always good to have conversations with you. And you know, we talk all the time or we'll talk about a specific niche thing and if we're like, want to read more?

Everybody just, you know, keep listening to Amy, me out there and the people that maybe we talk about because we're patients, we've been through it. So we know who's out there and who knows what they're doing and what they're not.

Yeah. Yeah, exactly. So, okay, you got a thyroid problem. Maybe you're on medication, maybe you're not. Maybe you're just dipping your toe in this thyroid world.

You got diagnosed with Hashimoto's. Let's start with the importance of reverse T3 on that lab panel that you get from your doctor that you're ordering yourself.

Talk to me about what is reverse T3 and we'll get into the importance of. Sure. So the way to look at reverse T3 is like it's kind of like an emergency brake.

It's an alarm bell that would go off in the body, and it actually is there to save your own life. And I'm going to make an analogy. So when you accidentally get yourself into type two diabetes, you know, like you're overeating carbs and you're headed towards insulin resistance, in those situations, you want to get fat, you want it to be pushed to the fat.

You don't want to be skinny fat, then it's in your bloodstream, right? So in that scenario, like your body's trying to save your life, it's pushing all of those, right?

It's trying to help you by making you fat and pushing the glucose. Okay. So reverse T3 is doing the same thing when it's sensing a threat. We can talk about the various threats.

It will put like an emergency brake on the whole feedback loop. And we'll try to dial back the conversion of T 43 to save your life, because it's things you're having an issue.

So we can talk about all of the things that would bring about a conversion issue. And I I'll do a real quick summation of this, because both you and I have talked about this, I've gone to Masterclass.

We've tons of interviews on this, but, we talk about the feedback loop. The TSH sends a signal to the thyroid. The thyroid wakes up, produces two hormones.

243 throughout the day, as you need it, T4 will convert to T3, and then whatever's not used will get flushed out through reverse T3. It is a natural process when something goes wrong.

And so let's just talk about an example of something that could go wrong. So let's say you are, starving yourself, but you don't really know you're over exercising.

You're on the wrong eating paradigm. You're maybe you're like in a bikini competition and you're doing one of these really severe things. So in those situations, you're kind of sending the message to the body that it's starving.

It doesn't have enough nutrients or satiation. And so it's going to get worried. And I know I'm personifying the body, but this is kind of what happens.

And it goes oh. Well, Amy doesn't have enough food. She must be stranded on an island. Like we're going to shut this down. We can't have her burn any more fat.

And the fat burner is T3, so they're not going to convert, and your body is not going to convert that T4, the T3, because it's like, no, no, no no no no no, dial it back.

Dial it back into reverse T3 to save her okay. So it's just a form of hypothyroidism, right? It'll still make you hypothyroid. But that's where the conversion comes in.

So let me think another couple other scenarios. You are in medical school going through a divorce, like super stressed out in life. Okay. Just people who have no thyroid problems at all get reverse T3 thyroid problems.

And I think that's really important. I know you know, this and from stress. So, so literally like so in that scenario you would go, okay, well what are we going to look at lifestyle first. Right.

And in those scenarios usually the labs will look somewhat normal. But that reverse T3 will be high. Something's going to be off and they're going to feel hypo.

And sometimes those don't require medication to get out of because what ignited it was not a true thing happening. Right. It was like an environmental situation.

It's almost like when people get Hashimoto's because they lived in a place with black mold, right?

Lifestyle Factors That Drive Reverse T3

It's it's not like it's neither here nor they just it happened to them. And the same thing happens, obviously, sometimes with hypothyroidism. Someone I knew got a graves from a really bad tooth infection, you know, so whatever ignites it, we don't know.

But we know for sure. Like these are the things that can ignite a reverse T3. There are also two enzymes that we have that are dedicated to conversion.

It is, I still think, Amy, a very expensive test to get the D1 and the D2. Our, our, our fellow colleague Paul Robinson, who's a T3 guy, did take the tests.

He learned he suffered his whole life. And then he learned at the end of all of it that he never could convert T4. If anyone ever gave him T4, he would have gotten a reverse T3 problem.

So there are then these cases of people who inherently can convert. And it's not stress. It's not that they're starving themselves. Right? So there are lots of variables here.

Selenium. The selenium is an important nutrient involved in the conversion. Right. So there are lots of things that can make suddenly the feedback loop go oh.

Danger zone. Problem. Dial it back. And some of it can be stuff that you can't even control, like a D1 and D2 enzyme. So there are people, I don't know if you are one, I know you I don't know if you didn't convert well or T4

just never work for you.

There are people that numbers look good on NT 243 combo like the numbers look good, but they're still not right and they can't figure that out. And in that case, sometimes those people have gone to T3 only as you know.

And that's the answer. Now that's rare, but that would be like a random one where you come to it knowing all the labs are good. They're pretty good. They do feel better, but they're not there yet.

And like something's wrong and something's missing. And those people that they've been doing that long enough transfer to T3 and like, how do we don't even know why that's the case?

Because they didn't have a reverse T3 issue. They didn't have a conversion issue. So there's also that. But what I want to say about reverse T3 is that T4 is the only thing that converts into it, which is why Amy takes T3 only and why I take mostly T3 only as well, but took T3 only for like 12 years.

And now I mostly take T3 because T3 will not convert into reverse T3. Ideally though, you want this all to be working the way it's supposed to work and you ideally want to.

If you have to do thyroid hormone replacement, be on a T14 three combo it is most enter can mimic right and you want that reverse T3 working for you. We're now Amy and I are people gauging how much we need, and we don't have the failsafe mechanism in there.

So, I'll give an example. Let's say, let's say, doctor, I'm gonna I'm gonna knock on wood. Let's say I'm out and about, or Amy's out and about. We both get hit by a car and like, we're in the hospital and we haven't gotten our T3 for a couple days, and no one knows this or whatever, right?

Like this would be this would be a problem. This would be like, kind of the only problem that we'd have, like a dire circumstance. But let's just say we got this and we got mangled limbs and all this kind of stuff.

That's a lot of inflammation. And so for a regular person on a two, four, two, three combo, it might dial it back for them and go, oh, there's metabolic fire happening here.

Let's just dial this a back a little bit. So if you just had Covid and you went in for a reverse T3 test, it might show that you're elevated. If you had cancer and you go in for a reverse T3.

Reverse T3 is an indicator of health, wellness and UN wellness in any human body, regardless of whether you have thyroid problems or not. So, I have a classic story.

I had a clean Hawaii and I said, we have to get the reverse T3 test. And of course the doctor said, sorry, we don't do that. I said, you go back and you push it.

She came back and she said, well, we only test reverse T3 when you're in the ICU. Yep. The ICU at the intensive care unit. You're already dead. Practically dead.

If you're going. To be high, it's going to be that. Right? Right. But then I'm like, but then it's like I said, it was just like, how did she not see her own logic?

Like when you as a doctor go, hold on a minute. Why would you test it if someone's so close to dire straits? Why would our T3 be this thing? Right? Doesn't that say so much?

If you're testing it in the ICU for everybody, then what the fuck? How about it? Excuse my language. How about we tested before we get to the ICU, you know?

Right. So it can be a good time of heart issues. Other issues. It's just a good wellness marker. Which is why my functional medicine doctor tests it in all of this patients.

Thyroid hormone or not? Thyroid problems or not. So I know that's a big loss over. And I know I just rambled that off, but, there's other things we can cover as to what could ignite a conversion issue or what can fix it.

And maybe we talk about why T3 only can definitely fix it for sure. Up to. Yeah. No, that was what I said. That was that. No, that was the perfect overview.

Because because now we can go into these different pocket areas. So let's start with I want to save the medication piece and go deeper in that. But let's start with just from a lifestyle.

You have mentioned selenium. What are the other things that we could be doing either nutritionally, lifestyle wise or supplemental? We that can help to bring down reverse T3?

We say the paleo. No, not necessarily the paleo with our system, but paleo primal ancestral living. And here's why. Because and I mean, like, you know, this with all the or, you know, with intermittent fasting and all the health stuff you do, when you are on a high fat, modern protein, low carb or high protein, moderate fat, low carb paradigm, which is essentially paleo, ancestral, it is the ultimate in blood glucose management and the ultimate in adrenal management.

And both of those things have a lot to do with how your thyroid hormones get metabolized. So if you would like to create the best primordial baseline to receive and metabolize thyroid hormones, whether you swallow them every day like Amy and I do, or whether your your body is distributing them perfectly.

And that is why it's key. Like some people thought my book was like, oh, I get it, you got fat from being hypo or having hashish. So now you do paleo to lose the weight.

And it's so much more than that, because paleo primal is not just an eating paradigm, it's a lifestyle strategy. And part of that lifestyle strategy is getting out of being a sugar burner, which is being dependent on running on glucose and being fueled by glucose.

And so these things then are in a slippery slope with thyroid hormones. So, for example, this is a perfect analogy. Let's say you're a person who never has had a thyroid problem.

Your family has many family problems, but you know you're eating and you're getting big and you're getting like towards type two diabetes. When you start to hit that HBA one C around six and you're getting there, you can get a thyroid problem from that which says everything about blood glucose management.

And then in those cases. So I would say to someone if they never had a problem in their life, but they ended up kind of towards type two diabetes and also had a side problem.

In that case, maybe the dietary keto intervention could turn it around if it was caused by that. Right. But so that just goes to show you the parallel.

You can get thyroid problems from having type two which is a blood glucose issue. Right. So that's why Paleo primal is so great. And then of course we always say, look, seed oils, grains, beans, legumes, dairy usually not appropriate for humans unless it's for fat, dairy, Hashimoto's.

We know for sure that gluten absolutely ignites antibodies. And it's the same with a lot of autoimmune disorders, as Amy knows. So yeah, if I had Hashimoto's, I don't have Hashimoto's.

But if I did have Hashimoto's, I would not be gluten at all. It would be like once or twice a year. I just would never eat gluten. It would just be the one thing I wouldn't do.

Yeah. So, but as far as back to like, conversion, so getting proper selenium now I always get the same me. Maybe you do too, where people like, well, can I just eat two Brazil nuts?

No, you can like the like. If you have compromised digestion, you're trying to fix problems, then that's not going to work. You're not going to absorb.

It's hard to keep the Brazil nuts fresh. Like people are trying to look for alternative ways. Sometimes you just take the pill of selenium, right? So the same goes with iron in this thyroid game.

Usually people are like, oh, I'll just eat liver. And you're like, this is just not going to work. Like sometimes you need to get punch with the stuff.

So, you know, like, look, the thyroid support formula with good selenium, selenium 200 micrograms a day. If you were worried or didn't want to get a thyroid problem, I might cycle those kind of things in and out of my months, you know, and make sure I'm getting the proper nutrients.

And of course, literally, like stress, anxiety, sleep, all of the things. But that goes along with primal. The other thing I want to say about primal, the one of the reasons is the ultimate blood glucose management.

It's not just about how it keeps your, insulin steady and not up and down and up and down. Because when it goes up and down and up and down, your adrenals don't like it, right?

Medication Strategies for High Reverse T3

And then they're shooting off stuff that's going to conflict with thyroid. Right. So you want to be on this paradigm. But the other thing about paleo primal is that people, I've had this happen in the past.

Someone came to me and they're like, I'm following paleo primal to the T, and I'm still having issues. And I'm like, what's your exercise like? And they're like, I'm running 30 miles a week.

There's your problem. Man. Because now you're in a glycolytic. So with with being a low sugar burner fat burner. And by the way, in my free thyroid guide, I literally have the excerpts from my book on what's a sugar burner?

What's a fat burner? And like, how do you know if you are one or the other? But paleo primal? We talk about moving over and switching over to becoming a fat burner, getting out of this glucose dependency, which makes you more metabolically flexible calorically efficient.

But the other thing about it, with thyroid is that, so I'm going to say about, the eating, oh, it's, it's good with the glucose management. But people when you are then a fat burner, we don't want to be burning sugar.

So this is where you have to do a move, where you go 180 minus your age, whatever. 180. Subtract your age from that. Take that number. And that number is something you shouldn't go over and heart rate more than a couple times a week, like maybe for a sprint session.

But then you have these people that are sugar burners and they're on spin cycle every day, or hot yoga five days a week. That's glycolytic, meaning you're burning your glucose stores.

That means afterwards you're going to be tired and hungry. And here we go. And that's why you have to work out when you eat, because you will get fat.

And that doesn't happen when you're a fat burner. When you're fat adapted, you go long periods of time without food, and you don't have to exercise to catch up with whatever you ate.

Like you could lose 40 pounds sitting in a wheelchair, without struggling with satiety or feeling like you're dieting. So it's lifestyle. I know it's sunshine and sleep, but it's more so people think it's not just a food list, right?

So if you're still running and doing glycolytic stuff all the time. Yeah, yeah, I hope that makes that's a big loss over paleo. Oh that's perfect. That's perfect because you just hit on all of the potential lifestyle things that people have

control over.

Now, when we move into the medication side of things, you know, I don't want to say people don't have control. They do have control. I mean, ultimately what you put in your body and whether or not you're getting proper thyroid hormone treatment is under your control.

Because if you stay with a doctor that keeps you on the wrong medication, it's wrong for you. That's your choice. And you're going to wonder why you feel like garbage.

But it's your choice because you're staying with the wrong person. But getting into that nuance of what you were saying earlier. So yes, I actually did get the D1 and D2 test done, and I have like, I don't understand the whole genetic thing.

Like I have one snip or two snips and it's like, whatever. But anyways, I have a snip. And that totally explains why I do not tolerate for whatsoever I am T3 only and with me if you give and I think this is the same with you as well, you can clarify.

If you give me T4, my symptoms will come on and I will become hypothyroid before my reverse has time to catch up. Now you can leave me on T4 and maybe a month or two from now you're going to look at the reverse and go, Holy hell, my God, you're at like a 20.

But I would have already gained like 50 or 60 pounds by then. Go bald and not be able to get out of bed. So I'm going to get hit with it before it shows on my lab.

So sometimes you can't always go by your labs. But but what about the medication piece? So somebody comes in and they sit down with you and they're on the classic T4 only like most conventional medicine doctors do.

And you look at their reverse and it's high. So what do we do in the medication world? And I know it's nuanced, but just give kind of a broad because.

There's so many new ones. Is this let me give you a couple of like quadrants of how this goes. So a lot of people hear about this reverse T3 and hear about T4 turning into it's then they think that right away when they have a reverse T3 issue, they need to go directly to T3 only.

Yeah, that's that's not the move okay. And again and if people go well why. And I go because you actually really want you know you want this T4 converting if you can if your body can do it you want it right.

You want it. Yeah ours can. So okay we have a different story and that's sad. So, All right, so sorry. Back to the medication. Okay, so there's a couple options.

Let's say someone's on T4 only. Well, first of all, it depends on how horrific and how long this reverse T3 problem is going on. But what I would do is you significantly reduce the T4, at least at first, and you add more T3 and you do it that way at first to see if they can handle a little T4 and T3, and if not, you eventually remove the T4 altogether, but that would be the way you would do it initially.

And again, sometimes people freak out because they've heard like, oh, it should be towards the bottom of the range. And someone was like, my reverse T3 was 15, it's high.

And I'm like, yeah, a lot of people freak out about that. I still do. The ratio between the free T3 in the reverse T3, but also in looking at the reverse T3, it can fluctuate a bit.

How are you feeling? And again, like so I'm someone who can only take 12.5 micrograms of T4, I can't take any more than that or it will be a problem. Yeah.

And there are other people that are a little bit different, like they might be able to handle 20 or 50, but then they're

taking literally like double that in T3 throughout the day.

So there's that. So if you're on T4 only would reduce the T4 and T3 see what happens. Maybe they have to go on T3 only sometimes you reduce the T4, you add T3.

They're feeling great. They're out of the problem. Now they're living well. Now they can see if they introduce T4 back in. They can do a classic 243 combo, but you don't want to do that until you get all the stuff Amy and I just talked about.

Right. The selenium. Your life will clean up detox. And you can only detox when you're on hypothyroid. So if you're on a hypothyroid and you're feeling good, great, do all the things, then do an experiment right with your doctor.

Try to get off it or try to switch back to T4. Then there's people like me who are on T 43. I had such a bad reverse T3 problem. My ratio was like ten.

I think I was at over the range. It was so horrific. I did go on T3 only for many, many years. And then I introduced a little bit of T4 about a year and a half ago.

But I still take mostly T3, so it's a lot of people do fear and think they have to go on T3 only, and it is a bad move. The reason it's a bad move is it is hard to manage.

It is not. It really is. It can be a pain in the ass and unless you really know what you're doing, it's tough and most doctors really don't know what they're doing.

And when we talk, I want to a couple things. I know we're short on time, but a couple things regarding T3, slow release, T3 can work for some people. It's usually not the move when you have a reverse T3 problem and you're looking at dosing sometimes 3 to 5 times a day to start.

I know you and I both dose twice now, but like we got there over time, right? And you know, things. So, do you want to do direct T3? And I make an argument for that in my book as well.

Trying to think what else? Okay. What I don't know, did I cover nine? Beautiful. That's beautiful. So yeah, to your point and just to expand on it because I totally agree, I always see foreign T3 is like checking and savings account like you, you have a small checking account or savings account.

I have no savings. You're not you don't have a savings account when you're on T3 only. So I get the same question from my people as well. Like, well, shouldn't I go T3 only it's like, that's not a goal.

That's not something to aim for. That's actually the opposite of what we want to do based on, you know, just what you said are physiological, production of foreign T3 is exactly that.

It's it's T4 23, and it really is more T4 than T3, although not everyone can do that medication wise. But if you can have a little bit of T4 on board and and you're able to tolerate that, that is best case scenario, you know.

Yeah. Just like Alice said, she's been T3 only for a while, introduced a small amount of T4 and is doing fine. I did the same experiment years ago, introduced a small amount of T4 and became hypothyroid and depressed in one week.

So it really it's sometimes is trial and error. Even though we're talking about reverse T3 right now, sometimes it is trial and error when that reverse isn't screaming at you.

Oh my gosh, there's a reverse T3 problem. But when you add in the T4 you get worse. It really does come down to how do you feel? And you have mentioned that like that's.

Why you got to go about symptoms. That's why you and I both know. And you I would both say never be with a

practitioner that's just looking at labs ever.

Right? Right. Because, you know, some people will come to me and they'll go, okay, here's my T3. I'm worried it's at this level. And I go, yeah, but how do you feel? Right? Right.

You know, like just symptoms. No or not. Because if you didn't have any symptoms, you could be T3 efficient and have a little bit of a subpar to experts looking for a T3.

But if you're Ben Greenfield or Marxist and or some athletic beast, you know what your T3 is going to be like 2.7 and like that would be concerning for us, but it's not for them.

And so you have to take everything in context, right? There are there are people who literally have no symptoms at a level where you and I would probably be dropping off of just falling on our faces. Yep.

Yep. Very individualized. Yeah. Same thing is, you know, too, because you do a lot with, like, female hormones and HRT. We don't want to go by labs because someone could be at the top of the range of, let's say, free T3 and still need more.

That doesn't mean that they're going to be hypothyroid, because they crossed the line on a test. There are other ways to determine, overstimulation. Right. And so that's such a key thing.

You know, I once had a doctor tell me she thought I was hypothyroid because I spoke fast, and I was like, you know what? Have we met? Like, I'm from downtown Chicago, like.

So you know what I mean? That's not a diagnostic. It's a fast. It's not a diagnostic test for hypothyroidism. And hypothyroidism also doesn't feel hyper because I've been there.

It actually is exhausting. So this is the kind of thing with doctors, but you have to take in symptoms. And just for everyone to know when you're talking about solving thyroid issues, which is totally possible for everyone you are looking for the full elimination of symptoms 100%.

And so sometimes that's a tweak because, you know, I mean, that could be 2.5 micrograms for someone or 15mg of armor or like it could be just a, a something.

Symptoms, Individualization, and Advocacy

Yeah. Yeah, absolutely. It's so individualized, so nuanced. But I think that the take home message though is if you're doctor is not testing reverse T3 time to get a new doctor or test it yourself.

Have an uninformed doctor. Yeah. If they don't know that element to it then they don't know the whole story. And then you better. That's okay. If you know the story and you can go to them and tell them and educate them, and then they'll be like, okay, you know, some I'm willing to practice with her.

You can have them work with you, but then you have to know what to advocate for yourself, which is why we're out here doing this. And I want to say this too, because I know you get a lot like if Amy and I, let's say we were just on a free thing right now and people were submitting their labs and stuff, Amy and I could only tell that person what the first order of business for them would be, because the way it's individual, there's a six foot five guy who can take one milk, a one 60 milligram pill of armor and be fine for life.

And then there's a five foot one woman like me who might need four times that amount. And you don't know because you can never throw a guess of a dose at someone.

You have to start off small. Therefore, they have to get tested again and come back and again and come back. It's a little bit of a process. So sometimes people are like just tell me what to do.

I'm like, I can tell you the first order of business, but that's why we have to talk to you, because it is a personal journey. And each. And then what if you would if by the third test.

Oh. Reverse T3 is creeping up. Well, now we need to take a left turn so you can't project everyone's map to them. And I know some people, they're like, just tell me.

It's like I'm not trying to get you to buy a horse or coach with me. It's literally like, impossible. Yeah. Does that make sense? Because the people out there like, just tell me what to do.

We're like, we're telling you as much as we can to do without talking to you personally, because that's how it goes. It's a it's a let's see what happens with this.

Let's start low and see how the person responds. Oh, we got to go here. And now you're good. But that whole three month journey six right. That's yeah. So individual.

But almost in every case Amy and I could tell everyone right off the bat, this is what your first thing could do. But then we can't help you from there, right.

You'd have to come and talk to us, so. Right, right. And keep tweaking. I think people. Are kind of confused about that. You know, they're like, just tell me.

And you're like, I would if I could, but we can't. We'll because so many other things in medicine is a one and done. Like, here you go. You're going to take this dose for the rest of your life or for three months or six months and that's it.

But like you said, the thyroid is always moving and changing and tweaking, and your body is moving and changing and tweaking and stress comes in and stress goes out. And that changes what you need to.

So it's it's it's just nuance. I mean, we can give you the big overview. Yes. Reverse T3 is important and here's why you have to test it. Here's what to look for.

Maybe you need a change, but as you're doing those changes, please know it does become very personalized, very nuanced. Yeah. And if a doctor, says don't know, we don't do that or I won't.

I'm not testing like ask say why? What's your reasoning? And you might even want to say but like, hey, no offense, if you don't know what it is, that's fine.

But don't not test it just because you don't know what it is. And your ego might be bruised because you went to medical school for ten years and paid 300,000, I get it, I need this test.

They just call it out, you know, because it's usually because they're afraid. Because they don't know what it is. We're not afraid. They just have an ego, and they're just.

They're just too embarrassed to admit it. Right. Exactly, exactly. Very wise. So, al, thank you so much for your time today. Can you tell people where they can find you, where they can get your book, where they can take your course, that you created all the things.

Sure. L ross.com lcross.com. But if you're right away like, oh I need to know what test to take for thyroid. How do I suss out a doctor's office to even know if they know what's up?

Just go to free Thyroid guy com or my website and just grab that guide. And it's also got some paleo recipes in there. And it tells you the difference between a sugar burner and a fat burner.

So even if you're not interested in thyroid stuff for me, go grab it for the recipes and the sugar burning paleo, part and then, unsubscribe, you know, get in there for the health stuff if that's all that you want out of it.

But there are some good paleo, instruction in there. Love it. Love it. Thank you so much. L love you. Thank you. Love your brain.