

# Paleo Solution - 345

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Robb: Hey, folks. Robb Wolf here, another edition of The Paleo Solution Podcast. Super excited for today's guest. Elle Russ is a super well-known host of the Primal Blueprint Podcast. She is the author of The Paleo Thyroid Solution. And it's kind of cool to talk to another podcaster and author who does, I guess, reasonably similar stuff day to day that I do. Welcome to the show.

Elle: Thanks so much for having me. Of course, big fan of your work as well.

Robb: Thanks. Thank you. So, give folks a little bit of your background. We were just talking about this a bit before we started recording. I think it's always helpful, informative for people to kind of understand folk's back story and kind of the headspace that you bring to bear on your podcasting life and then also clearly writing your book.

Elle: Yeah. Well, it never was intended to even be on the health industry. Although when I came out to Los Angeles in about the year 2000, I was pursuing a career in acting and writing. I'm still an actor and I'm still a writer and other creative capacities other than just health. It wasn't my intention. However, I still was very on the health train. I had read every health book, The Zone, South Beach. I was still into creating this ideal body and, of course, I was auditioning for the lead ingénue roles at that time. I had to fit into a certain mould and so I took that seriously and like an athlete kind of stepped forward.

Now, when I look back, I see exactly what threw me into a hypothyroid state. And what I know now I wish I knew then. But I was following the conventional wisdom of chronic cardio, low fat-low carb combination, which is we know kind of brutal. And all of that led to me getting hypothyroidism. When I look back on my labs, when I look back at everything, I can see that I could have nipped this in the bud and reversed that at that time.

But nobody at that time sort of knew that this would probably be the answer anyway. When I look back, that sort of what got me into it. So then what happened was I got severely hypothyroid and I went from -- just to give people a picture. At that time, let's see, I'm still 5'2". I was 5'2", about 16%, 17% body fat and between 110 and 115 pounds. So, for someone my size, that's like a pretty--

Robb: Pretty lean.

Elle:           Athletical. Yeah, yeah, yeah. People would come up to me and go, "Damn, you must work out. You look great. How do you--" So, I definitely lived -- I looked that way. However, I struggled to stay there. I was suffering all the time from the ups and downs of the blood sugar train. I'd be a total sugar burner. And it took like what seemed extreme willpower to maintain that. I thought, well, this way of doing this is working. I'm certainly getting the results. However, I'm suffering. And so I didn't even think of it as being the wrong way to do it. I just thought, "Oh well, I guess, everyone who's achieved this body is in the same boat."

Robb:           It just sucks regardless.

Elle:           Right. It just sucks or this is just me. I just have food addictions. I'm just effed up with food. I just have these issues. Why don't other people have these issues that are thin and looking good? Or do they and they're not telling me? I thought something was either inherently wrong with me or this was the way it had to go. So then hypothyroidism hit me. I did not know it was hypothyroidism because I went undiagnosed and misdiagnosed for the first two years. So things got rampantly horrible.

The first symptoms started to come. It was usually gynecological happens with women. I had my period all the time which was abnormal for a 30-year old who was in perfect health. And then I went to about 155 pounds and that was working out two hours a day and eating about a thousand or less than 1200 calories a day. And doctors just kept saying, "You just got to tap on--" I had one doctor tap on my gym shoes and just goes, "Well, got to use these more." I mean, every hypothyroidism--

Robb:           You're like, "Doc, do you have a scalpel so I can cut your throat?"

Elle:           Right. No, pretty much. A lot of the healing I had to do later on was around my anger towards doctors. I mean, I still talk crap all day long about terrible endocrinologists and bad doctoring. But at the end of the day, that was a tough part too because I made a mistake that a lot of people make. And we don't even need to call them mistake but let's just call it turning yourself around and stepping up to take responsibility.

When my doctors kept saying, "This is fine, this is fine. It's not that," I trusted that they knew what they were doing. And that's the big lesson here for everybody. Don't trust your doctor. I don't care if he has a Harvard degree, a Yale degree. You need to participate, stand up, research. If someone is diagnosed she's with something or you can't get to an answer. That took me a while to take control. And once I finally did, I found the answers. I was on the right train.

I did put my health in the hands of doctors just as so many of us do. So that's one lesson learned there. Then I just started to gain all this weight. It was horrible. I had over 30 symptoms which are listed in my book and they are horrific. And no one seemed to know what was wrong with me and no doctors would help me.

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And I had a PPO. I spent \$15,000 of my own money. I live in Los Angeles so I'm near all the best anti-aging doctors and celebrity hormone doctors. And finally I got to the point where I was broke. Doctors had hurt me more than helped me and I decided to take it into my own hands and I ended up dosing myself, taking my own blood work either through other doctors or independent labs and I actually completely solved hypothyroidism myself.

And then a few years, six years later, I developed a second form of hypothyroidism where the thyroid hormones sort of, I guess, you could say kind of work against you. I just developed a reverse T3 hypothyroidism issue which is kind of on the increase and that can also happen to people not even on thyroid hormone. So then the second bout is even harder and more -- Doctors were even more uninformed about this type of hypothyroidism.

I knew at that level, after reaching out to another 20, 25 endocrinologists and doctors and people to see if they would help me with that, I knew that I was on my own again. So, I had solved again a second bout of hypothyroidism on my own. And I did it successfully twice in ten years and I'm perfectly fine, doing great. This problem is 100% solvable and I want to let everyone out there know that. Don't you let anyone tell you, doctor or otherwise, that just because you have hypothyroidism you're going to suffer from X. Do you know what I mean?

Robb: Right, right.

Elle: Whether that's weight issues or whether that's anything else. People go, "Well, this is just kind of par for the course." No, it's not. So, I'm glad I solved the problem myself. I shouldn't have had to do that, Robb, right? I mean, that's scary. It's a horrifying place. I'm not a doctor. I'm a creative person. I don't know biology, you know what I mean? So, I became an expert because I had to, because I didn't have a choice.

Robb: The wrap up of my first book, I was doing still these eight-hour seminars all over the place and it became this deal where about 20% of the folks that showed up at these events, they had a stack of paper work and blood values and everything and I was completely ill-equipped to deal with these folks. I'm not a medical practitioner. And that was when I started the Paleo Physicians Network.

I knew that really the next step that we needed was a huge increase in the number of practitioners that understand this stuff. Now, Chris Kresser has his practitioner certification program. The Functional Medicine Institute is working with the Cleveland Clinic. And so it's really -- Today, relative to ten years ago, it's much easier to find folks although clearly still difficult but, I think, ten years from now it's going to be even better. But ten years of flailing around with the--

Elle: Thank you for your contribution to that. Seriously, that's really wonderful. And I've also been on that website before and looked around and I direct people to that. And actually, that website is a reference in my book as well.

Robb: Wow, thank you. Thanks. There's no vetting on it currently, which is unfortunate, but it was just kind of pitching a snowball into hell hoping that somebody somewhere would link up and these folks hopefully had a solid kind of functional medicine with an evolutionary biology kind of framework would be able to interface with patients. And the feedback I've had has been pretty good. Clearly, we have a long way to go with that but it's exciting to hear.

And you were spot on. We really need doctors and health care providers that are much more adept at figuring this stuff out. The question I have for you, and I know this may be -- The symptoms are moving target as this progresses. So, my question was going to be: Could you detail a day? Because it's kind of hard to just like spit symptoms out. But I was thinking about like you wake up and this is when things were maybe bad or -- Because I know that they change over time and they kind of morph in--

Elle: Well, they get worse over time.

Robb: They get worse? Let's just take a day.

Elle: It gets worse only when you're untreated, yes. I will take you through kind of what might be. So, for example, I know someone that was kind of diagnosed quickly, thankfully by the right doctor. And the only symptom she initially had was she started to gain a little weight and she's a very tiny person but she was freezing all the time. That's usually something right away, temperature. If you're the one that has cold hands and cold feet all the time and you're cold all the time even when other people aren't and it's summer, et cetera, and you're just freezing. But usually, it would be -- I mean, so, for example, when I was at my worst, at my hypothyroid worst, I was 96 degrees all the time. All the time. We're all supposed to be 98.6 every one, in case you don't know that.

Robb: You might have lived to a hundred years doing that but it would have been a miserable 200 years. Wow.

Elle: Right. So, very cold. Brain function is one of the things right away. Depression. Brain fog. But really, weight gain, puffiness. But the people that don't experience any, its rare, but the people that don't experience any weight or bloat issues, like bloating issues, they will still experience a temperature issue, a depression issue, a brain issue and an energy issue.

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So, there are some people that cannot even get out of bed in the morning because it's just so bad, because their adrenals are shot, they have zero T3 and maybe they also have Hashimoto's and their antibodies are out of control. So that would be like your worst case scenario. That combined with like going through menopause, probably your ultimate worst case scenario for a thyroid triad of horribleness.

Robb: Basically max out your life insurance and just be done.

Elle: That would be tough. That's the toughest treat. You really need a good functional doctor there because there's a lot of elements. But for most people in general, it starts off with either temperature. It starts off also with infertility and/or miscarriages or anything gynecologically related, even men too, sex drive. That's where it gets us first. Our thyroid gland is the master gland of the body. It is a control of the regulation and production of all the sex hormones and everything else.

Let's just talk about its importance for one second. Everybody, every human being in this world who's listening has a thyroid gland unless it was removed. Rarely people are born without one. Unless it was removed. And if it was removed, you have to give the person thyroid hormones or they'll die. You will not live without a thyroid gland. You will die. So, what do you think is going to happen to you if you live a life of suboptimal or sub parathyroid hormone metabolism? You're going to die slowly and that's exactly what it feels like.

So, it progressed. First, I got my period all the time and it was like, "Oh, what's happening?" Doctor keeps giving me the birth control pill, a band aid, keeps getting worse, keep bleeding through it. Then it was the weight gain. Then it was the hair falling out. Then it was horrible constipation at the same time. And I'm talking constipation that even laxatives won't fix.

Robb: Wow. Does it ever go the opposite? Do you ever see folks with kind of loose stool within that thing?

Elle: Usually, that's with hyperthyroidism.

Robb: Okay, okay.

Elle: Or unless there's like a real crazy gut issue going on there that we don't know about like celiac or if there's something going on there. But in general, you rarely see like regular bowels with people--

Robb: Interesting.

Elle: Like they won't even be going once a day. That's a real tough symptom for a lot of people.

Robb: Oh, seriously, yeah.

Elle: But depression. So, T3 is the main biologically active thyroid hormone and we have more receptors in our brain than anything. So, a lot of people, and this is a real indication, I've noticed that in the past, with friends that I never thought would be hypothyroid, and then over a couple of years you'd start to see people kind of give up on their dreams in life, kind of not care, they're sort of staring into space, they can't really focus.

You feel like when you're talking to them they're not really able to listen. Anyone who sort of like gained weight or given up kind of working out or kind of caring about their appearance even, those kind of personality things that happen with people especially when they get listless and depressed, that's related to thyroid. In fact, every single -- People get so misdiagnosed with bipolar disorder and depression.

And I tell you right now, if you're hypothyroid and you're depressed and then you'll get put on Prozac, it will last you three months and it won't work anymore because you never solved the problem. So, depression, anything mental is huge with this. So, anyway, then you get horribly depressed. Not because you gained weight because you're literally depressed. So, a day in the life of me back then, we're talking sobbing several times a day all day. We're talking you feel so horrible in your own skin. It is so tight.

You have skin thickening. Literally, your skin is thickening. You feel like you drink a bottle of MSG when you bend your leg. You can't even -- It's not I feel uncomfortable in my own skin because I gained weight like normal people in this world when they gain weight. It's a different level of internal wanting to jump out of your skin literally. So you can't even almost live. Every second of the day is horrible because you're living in this body. With every step you take.

And heavy legs are big symptom of low ferritin and also low thyroid. So, it's every movement. It's everything. And then it can get even worse than that.

People develop -- I was misdiagnosed with polycystic ovarian syndrome. I don't have it, never had it, looked like I had it though. So, you will get a disease you otherwise would not have gotten because you're in a hypothyroid state. That's why it's important to everybody out there, even if you don't have thyroid problem, to assess your status or read my book and figure out how to optimize what you already have going naturally for you so that it doesn't go awry.

Because 25 plus million Americans have thyroid problems. It's on the rise. 200 million people worldwide. It's an epidemic. It's happening even more and more. And not to mention all the people that are already on thyroid hormones and they're not doing well. They're still not doing well because they're with the wrong doctors. They're being mistreated.

Robb: There was just a huge science direct piece basically digging into folks that are on thyroid medication, how are they actually doing and the people were -- I think it was like 84%, 85% of the people who they were doing better than what they were previously but they're still living a very suboptimum life on just every quality of life standard you could care to look at.

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Elle: Absolutely. And that's the thing is that they just go, "Well, my doctor said my thyroid is fine." Now, I just want to say this. How do you know it's fine? Do you know what the numbers mean? Do you know what your disease mean? And if you don't, now you're the dummy. You have to take responsibility at some point. If you get diagnosed with a disease, you cannot entrust it to someone else. You will work with that person as a partner, hopefully, of course, doctor.

But you got to get knowledgeable. You got to make sure they're treating you right. You have got to be your own detective here and you have to learn. 99% of the people I know who I talk to that had been on thyroid hormone for years still have no idea what it is, what it does. They know nothing about it. They've just been blindly taking a pill.

Robb: Elle, when you described some of the symptoms -- A couple of questions. One, how frequently are thyroid issues happening in men versus women and then on the men side so much of what you're describing sounds like all of these low testosterone commercials.

Elle: That's right.

Robb: And clearly, like you said, the guy may actually have low testosterone but is it because his testes aren't functioning but actually because his thyroid is off? Because like the polycystic ovarian syndrome, you may actually have PCOS but it

wasn't caused by insulin resistant specifically but insulin resistant as a consequence of thyroid dysregulation. So, how often is this happening in men versus women? And then it really seems like this describes a ton of what's going on with this like low testosterone deal.

Elle: Yeah, you're targeting, you're on laser on this one. So, first of all, it's disproportionately a woman's disease. So, like one out of every eight women will get a thyroid problem in their lifetime. Unfortunately, it affects us more. However, it does affect male and female hormones significantly. And again, this is why something like polycystic ovarian syndrome might show up and look like something but when you fix the root cause you don't get that anymore.

Same with the low testosterone in men. And I had low testosterone. So, when you are hypothyroid, male or female, your hormones are bound to get screwed up. But if it were a guy that had low T, I would say let's test thyroid and DHEA, because that's also an adrenal thing. There are so many guys that are like 43, 44 that are like, "I'm not waking up with hard-ons anymore." And that's kind of like not right. But then you look at their DHEA and it's a disaster.

Stress of our modern world and all that we know that we've all endured in the past ten, 15 years, if anything, I see people's DHEA tank everywhere -- in 30-year olds, in 4--year olds. So, that in part, plus thyroid, really makes the difference for testosterone in men and in women. And so, usually, when you correct the thyroid, then those things can get back in order. That's the only reason I say when you're going through menopause it's just really tricky because there's another huge element involved and those changes that are happening.

But in general, when you're not near that, then those hormones should kick back into gear. I once had very low testosterone. I didn't take testosterone to fix that. I just fixed my thyroid and then the symphony of hormones will get back into balance. Granted, it took -- Also, I had low DHEA. I supplemented with that and, obviously, did other things. So, low testosterone in men, absolutely related to thyroid and also adrenal.

Robb: So, Elle, you've mentioned the testing. This is something that, oh my god, it makes me crazy because most testing, they look at TSH, that's it. And there's all kinds of problems with even just the way that they're looking at TSH. But can you walk through kind of what it is, what are you going to get through most doctors and then what do we need to actually be looking at to get the real deal on this? You mentioned reverse T3, thyroid uptake and all that type of stuff. What are we going to typically get and then what do we need to -- And then you mentioned this, how to navigate this in the book. What are we going to experience with our doc in general and then what do we need to say? "Hey, by the way, could we look at X, Y and Z?"

Elle: Again, first of all, let me rattle off a comprehensive, like a base comprehensive. I don't think T3 uptake is part of the first order of business with this, that those are kind of when they're used and don't have free T3 around that could be a misstep as well. But a standard comprehensive would be free T3, free T4, TSH, and then the two Hashimoto's antibody test, TPOAB and TGAB. That would be a good starting point. Now, there's also peripherals that need to happen. Ferritin, very important. B12, homocysteine, DHEA sulfate, vitamin D. Those things right there, very, very important to everything.

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So, that would be the litany I would get for start and then you can go from there and see if you want to do more in depth organic testing or food sensitivity. I think the best way for people to understand this is maybe to explain, because you mentioned the TSH, it's an outdated test from 1973. It's not used anymore to assess thyroid health by people who know what they're doing. And so, I think, the best thing to do here is probably take everyone through a little bit about how the thyroid works.

It's not going to take -- it's just a brief discussion. And also people will really understand how this works. So, essentially, there's three things. I'm not going to get into Hashimoto's right now but there's three things that people just really need to know -- TSH, free T3 and free T4. Now, for sure, when you say T3 and T4, this is how our thyroids work. The TSH is just a pituitary hormone. It is not a thyroid hormone. So, that right there is a problem for testing it solely basing it on that. But again, it's just sort of like 40-year old outdated protocol. It's the same thing as saying saturated fat causes heart disease, just outdated medical wisdom.

So, what happens is when the brain senses that your blood is low in thyroid hormone, it will send a signal called the TSH, thyroid stimulating hormone. It will send it to the thyroid to say, "Hey, wake up. You need to produce more T4 and T3. Get going." Now, the thyroid can take, accept that and then pump out the right amounts. It can accept that message and not pop out the right amounts. It can pop out the right amounts and those right amounts might not be converted or dealt with properly. That's a whole other story. and I do get into all that in my book.

But essentially, everyone needs to know this. When the thyroid is working properly, it emanates about 80% T4 and 20% T3. 50% of that T4 is going to be converted into T3. And now people are going, "T4, T3, I'm confused." T3 is the only biologically active thyroid hormone that's necessary for life. T4 is just a pro

hormone. It is useless unless it converts into the thing that matters, which is T3. It's useless.

So, most doctors, most endocrinologists, will test TSH and T4. They're using real old school data. They're also almost 99.9% of the time prescribing Synthroid only as the only course of treatment. So, Synthroid is just T4 only which was like sort of the first big pharma move back in the '50s as far as thyroid treatment goes. So, let's say you're an endocrinologist. You've put a patient on T4. And all you're doing is testing their TSH and T4. You're not even testing the thing that matters. How do you know it's even converting into the thing that matters?

And here's why I could tell you it matters. I have not had T4 in my body for four years. I'm on T3 only. If you tested my T4 every single day for the past four years, it will say 0.00, something like that, really low. It's not necessary. It's just a pro hormone. And if it doesn't do its job, it doesn't even matter, you could give a patient thousands of pills of T4, if it doesn't convert -- So, there's the problem right away.

Not only are they assessing thyroid status from a signal being sent. The reason we test T3 is what's available and free and unbound and available in our blood? And free T3 results correspond with how people feel. Now, most of the population who has normal working thyroids, good metabolism, feeling great, their T3 is usually around mid-range. So, on a scale of like 2.0 to 4.0, probably 3.0. That's average population.

Well, for people that are on thyroid hormone replacement, they usually need a higher T3. So, endocrinologists now, again, the problem with these old school outdated medical doctors because they're now looking for everyone's T3 to be in the same range. They're also not even testing free T3. They do not believe it matters. This is just, again, outdated, just have not looked into latest research on this subject. They're just going by what they learned in medical school. So, not only are they testing the things that don't matter, they're resistant to testing the things that do matter. And at the end of the day, all that matters really is your free T3, with how you're feeling.

I mean, these other tests are interesting and necessary. TSH is still necessary because it can tell us something. If it's super, super high, it usually means that the body is screaming for thyroid hormones. If it's super, super low, there might be a pituitary or another kind of issue there. Maybe the person is starving themselves. They just need to eat a little bit more. The primal signal has been sent. This is all primal and Paleo because our bodies react, our thyroids react to the messages that's sent.

So, if you're like starving yourself and you're having a low carb low fat existence like I was, the body goes, "She's starving or running from danger and we better shut down this fat burning hormone T3 and not have it convert because we don't want her to become hyper metabolic. Furthermore, we're going to lower these hormones. We don't need her to get pregnant right now. So, I'm going to decrease your sex drive, et cetera, et cetera." You see where that's going. Do you know what I mean?

Robb: Absolutely, yeah.

Elle: There's where Paleo lifestyle comes into play in terms of how to ultimately -- ultimate blood glucose management, ultimate adrenal management. Those things are both related to thyroid. They're very important.

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So, with regard to these blood tests, going back, again -- Now, for example, if you look up T3 or liothyronine sodium, which is technically what T3 is, 100,000 body building websites will pop up. That's weird. Well, what they do is they jam themselves with T3 before a competition for about six to eight weeks so they can burn as much fat as possible. Why is that? Because T3 is the most potent fat burner we have. It's the regulation of temperature. It's why a hypothyroid patient with low T3 is freezing. It's also why a hyperthyroid patient with too much or the over production of T3 is usually sweaty, clammy, loose stools, anxious, jittery, bug eyes, kind of gain weight.

It's a Goldilocks situation. Do you know what I mean? And we can gauge that through dosing symptoms and temperature. It's just completely solvable. So that anyone that's out there suffering is either probably being misdiagnosed or they are with a doctor who doesn't understand how to treat it.

Robb: My head is spinning right now. I'm thinking--

Elle: Sorry. There's a lot of information.

Robb: No, no, it's fantastic.

Elle: I want to get into TSH too. So, for example, here's another problem.

Robb: Then I want to talk a little bit about food because the higher carb versus lower carb and all that stuff. Yeah.

Elle: So real quick at the TSH and other problem that people run into. What I'm about to say does not apply for people on T4 only. If you're on Synthroid only or T4

only, which is levothyroxine, this would not apply to anyone on T4 only. But for the people who are on a T4-T3 combo, which by the way, is most an endocrine mimicry because our bodies do not rely on T3-T4 conversion alone. Our thyroid pumps out 80% T4, 20% T3 and then the rest of that is going to be converted. It's almost like T4 is this nice slow release mechanism that doses us when our bodies need T3 and whatever T4 isn't used is going to be flashed out through reverse T3. It will be converted into reverse T3 being the inactive form.

So, what happens in a reverse T3 situation, and we don't have to get totally into that right now, but that's where the T4 is not converting into the biologically active T3. It's converting into the inactive. This could happen again. A normal person with normal thyroid function who is training for a marathon, maybe they're not eating enough calories, they're overstressed, they might have a reverse T3 problem.

Stress can cause a reverse T3 problem. Because again, the message is I'm stressed in some way, inflammation, cortisol, whatever it is, and so the body goes, "Let's take this metabolic situation down while we figure out and can help this person otherwise." Do you know what I mean? So, that's where reverse T3. It is the same feeling as hypothyroidism. You can be on thyroid hormone and be hypothyroidism with a reverse T3 problem.

So, more and more people are having those issues probably because of stress in our society and poor diet. It's important as well to -- I should add reverse T3 to that comprehensive list of tests I just mentioned. I probably forgot to do that. And what we do is we gauge the ratio between the reverse T3 and the free T3. And usually, a ratio of 20 or higher is optimal. Mine when I had a reverse T3 issue, my ratio was like 12. And it was also high in the reverse T3 range.

But sometimes, you just can't go by reverse T3 because it might be like in the range not too high but what really matters is the ratio and then you can tell someone has got a reverse T3 problem. So, let's get back to the TSH, the signal. People who are on T4-T3 combinations who are with uninformed doctors still, those doctors will be afraid if they see a suppressed TSH. Meaning, it will look like 0.0. And actually, this happened to Tony Federico, Paleo Magazine Online.

We had a podcast about this and we kind of saved him from being... he had an endocrinologist who was afraid because the TSH was zero. Here's the thing. TSH suppression is not at all bad for you. But doctors, because of a 40-year old outdated protocol, are still afraid of it and think it causes cancer and heart disease and all those stuff, which it doesn't. My TSH has been suppressed for like 13 years. And most people who are optimized on a T4-T3 combination will have a suppressed TSH.

And I talk all about this in my book with the doctor, Dr. Foresman, who is a great integrative functional medicine doctor and also a primal doctor. And we have an in depth Q&A. No one has to believe me. What does she know? Well, I've got a doctor in the book and you can read what he has to say about it. But essentially, there's these false fears out there. I mean, when I had to take T3 only, I had doctors tell me I was going to kill myself. I had doctors saying, "I can't prescribe you that. I'll lose my license."

Robb: Right, right.

Elle: And it's just crazy. It's just not true.

Robb: But, I mean, if T3 and, let's just say, T4 issues are addressed but mainly T3 then there shouldn't be any need for a signal, thus, producing TSH.

**[0:30:05]**

Elle: That's right, because you've got enough on your system. So, why is the wakeup call being sent?

Robb: Right.

Elle: It's almost like also -- Think about it. If I order something, if I order a book from your website and I never get it, I don't keep ordering it. Do you know what I mean? I don't keep checking it that. I go like, "Let's check shipping." All that matters is I get the damn package. It doesn't matter -- right? So, again, it's this false sense of they're afraid of this TSH somehow going zero but all the doctors in the know who know what's up, what happens is it's not the goal to suppress the TSH when you're on T4-T3 combination or T3 only. It's just what happens usually.

Most people that are optimized, feeling great, their TSH will be 0.01. Their free T3 will be above mid range or top of the range or a little bit over and their free T4 would be like 1.3 to 1.4 and that's roughly what it is. Now, I just want to say out there, one of the reasons I wrote this book -- I've read every book on thyroid health, even all the recent ones. I've read all. Because, obviously, I was trying to solve my problem.

There's a couple of good ones out there. But the reason I wrote this book is this was the book I couldn't find. I put blood results in there. You will see before and after. You will understand how to look at lab work. This is really important for patients. A lot of thyroid books, they don't tell you that. It's like there's not only that, there's before and after stories and also pictures. I wanted to see, I wanted

to be inspired. I was fat and bloated and miserable. I wanted to be inspired by someone who had achieved it.

One of the reasons Paleo Primal low carb -- and we'll get into that in a minute -- is so applicable here especially to most people become insulin resistant in a hypothyroid state, if it's gone on too long. And you know what's the way to reverse that, right?

Robb: Reduce our glycemic load and then, yeah, magic happens with that. I just really quickly wanted to circle back. When you were mentioning that the TSH would go potentially to zero, this is only in folks that are replacing thyroid exogenously?

Elle: Correct.

Robb: Right, okay. I just want to clarify that. Yeah.

Elle: If you had a suppressed TSH and you are not on any medication, that probably would be a hyperthyroid situation.

Robb: Okay, okay

Elle: Someone who has horrible symptoms there, yes. By the way, you do not want to suppress TSH if you're on T4 only. You do not. That would make you hyperthyroid. But if you're on -- And by the way, it's just my opinion -- there's T4 only, there's T4-T3 combo either in the choice of natural desiccated thyroid or compounded T4-T3, or there's T3 only. Those are the three options. The most endocrine mimicry best way to go is usually NDT or T4-T3 combo. Not T3 only and not T4 only.

Robb: Interesting. So, why have you gone the T3 only route?

Elle: Well, I didn't have a choice because -- here's the thing. The only thing that converts into reverse T3 is T4. So, when I had a very serious reverse T3 problem, which you can sometimes fix without going on T3 only. Meaning, there's underlying causes of reverse T3. You can fix those underlying causes like adrenal issues, iron storage, stress, do a liver detox, gut issues. You can attack all that stuff naturally. You can ever lower your dose a little bit and maybe add a little T3 while you're trying to figure out.

I did everything I could to not go on T3 and reverse my reverse T3 problem and that did not work. So then in that case, the last resort for all patients who have a reverse T3 problem is to go on direct T3 because it doesn't convert into reverse T3. This is way you look at it. It's like when a T4 converts into the inactive form of reverse T3 it can also be looked at as like guards that are blocking the T3

receptors and not allowing it in. Reverse T3 kind of go, "Uh, uh. You're not getting in there." And like the T3 just kind of like, is like in a pool, in your blood. That's why someone with a reverse T3 problem can have decent levels of T3.

Robb: Inactive.

Elle: And the doctor might go, "You're fine." But they're not testing reverse T3. They don't realize that that's where most of the conversion is happening. So when you start to take T3 only, it takes about eight to 12 weeks for those receptors to sort of clear. And again, I'm just talking like as layman term as I can about how someone can visualize this. But you start to feel better right away but you -- So, essentially, the protocol is you would wean off of T4 or T3. Or if you're not on it all then you just start T3 and then you build up that dose and then you wait for that stuff to clear.

You make sure you correct underlying issues like Lyme disease or a chronic infection or even a crazy car accident can make somebody go into a reverse T3, say. So, once you correct the underlying issues then you can go back on natural desiccated thyroid or something else. I totally plan on doing that. But because it had failed me once, there is still a risk that if I go back on it, it will not convert properly. And that's okay because that's fixable. I just didn't want to do it while I was writing a book, you know what I mean?

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If I have to go through a hypo phase or it doesn't work, I didn't want my brain to be affected like I know it will be. So, I'm basically waiting a little bit and, hopefully, will go back on natural desiccated thyroid and it will work great for me.

Robb: Got you. Do you have any sense of what was driving that reverse T3 conversion? I know like elevated cortisol levels, cytokines from gut dysbiosis are factors that can play into that. Like do you have any type of a sense of what may be causing that and how are you going to kind of differentially diagnose or play with that to kind of figure out what is the issue?

Elle: Well, when I look back and -- So, even though I had solved that first bout of hypothyroidism and I was doing well in natural desiccated, I still didn't understand Paleo Primal. So, I still then was on the chronic cardio train and everything else. A selenium deficiency can cause it. In fact, everyone on thyroid hormone replacement should take 200 to 400 micrograms of selenium every day. But I actually ended up getting tested later. I did have a selenium deficiency. That could have caused it.

I also went through a very stressful year. Like when I look back, I was ending a very stressful year when my reverse T3 situation started. Yeah, stress, cortisol, all of those things. I mean, when you have a reverse T3 problem, you have to, whether naturally or through medicine, you have to chill out. That's sort of my belief on what caused it. And also too, I might have been at one point towards the end there may be on too much thyroid hormone, which could have just contributed to it a little bit.

But at the end of the day, I kind of look at the lifestyle, you know what I mean? And so then on the second bout -- I mean, actually, that's why I discovered this connection and why it's really essential. Because for years, people were like, "Oh, you should write a book on thyroid." I'm like, "Well, what hasn't been said about it? It's already said." Until I went Paleo Primal and dropped my medication in half and finally started to get rid of this insulin resistance and realized that all that you know and your audience knows.

Robb: So, let's talk a little bit about that shift then to kind of the Paleo Primal focus. There's a lot of, man, it's honestly confusing for me. I see a ton of people with thyroid issues that eat a lower carb diet, feel better. I also have seen some folks that were eating possibly too low carb or too low carb with too much intensity. I'm still absolutely befuddled by that because we have some really long running examples of like children who've been on ketogenic diets for ten years, 15 years and we don't see huge amounts of thyroid dysregulation in these kids.

Elle: That's right.

Robb: Yeah. So, I mean, is it just poorly composed? Is it that like Paleo Primal is so satiating that it's really easy to undereat?

Elle: Good point. There you go. You nailed one of them on the head. I like this issue because it comes up a lot. And there's communities in talk boards, "Oh, you know--" I even had someone email me recently and goes, "Oh, but I'll make sure I'll get enough glucose so that I can help produce T3." I'm like, glucose isn't making T3 in your body. That's not how this works, right?

Here's a couple of thoughts about this. Number one, we would not be here today if low carb, high fat diets cause hypothyroidism. Population would just never happen. People would not have been able to get pregnant or come to full term with the pregnancy. That we know right there. So then, what it is it? Number one, I would venture to say that anyone who went low carb and high fat and became hypo or had thyroid issues, I would say, first of all, how are the vitamin D, the ferritin and all the other things going on? To start, gut issues. What else is going on?

They might have been deficient already before starting a Paleo Primal path. So, there's so many other factors other than just low carb. That starts off. I agree with you on the satiation. I feel that some people can get their appetites so suppressed. They might be restricting calories in such a way that could be sending a message to the body that they're starving. It's not necessarily a calorie thing, I think. I think it's about just making sure you're still getting enough nutrition and not sending the starving message.

I don't mean like intermittent fasting kind of starving. But I mean, you know what I mean? Like long term real serious calorie restriction. And people can get excited about that because they go keto, their appetite is suppressed and they're like, "Oh my god, I'm only in my 500 calories a day."

Robb: And I feel great, at least for the first month.

Elle: Right. They're feeling they might drop some weight so they might go even crazier with it and then forget about making sure the higher fat.

**[0:40:01]**

But if you're doing it right, thyroid problem shouldn't happen. Again, there also might be a selenium deficiency there. There might be low ferritin. There might be cortisol issues. So, to say that low carb high fat causes thyroid issues is insane to me. That makes no sense. I think there are these other factors involved that have to be quantified in each case.

Robb: Do you have--

Elle: Now, there might be reset. Like it lowers a little bit. I think even Jimmy Moore talks about that in Keto Clarity about how someone goes keto and their T3 levels might go down. But that also, just so you know, when you become -- And the reason I know this is because I'm on direct T3 which means I can sense changes very, very quickly because it peaks and dissipates within four hours and I dose about four times a day.

So, what I can tell is that -- and I've done some experiments. I've tried to go as low as I can with thyroid hormone. I've tried to see what's too low, what's the sweet spot. And what I've noticed is the lower carb you get and the more calorically efficient and just healthier you get the less T3 you need for the taxing job that you've given up before when you were in an unhealthy state or eating a ton of carbs, et cetera.

So that might be showing up on blood work. I don't know if those people though are feeling hypo. That's really the determining factor. How do you feel? If you

have hypothyroid symptoms and your free T3 looks great, you still maybe hypo. But the doctor might go, "No, your free T3 is fine." Vice versa. Someone will have low free T3 and feel great that way but I would feel hypo and horrible with that free T3. So, I would venture to say like of the people that were tested that went keto and maybe their T3 lowered a little bit, were they feeling hypothyroid?

Robb: Cold, right.

Elle: Like you can't say someone's hypothyroid. Like I had a doctor once tell me because of the free T3 result that I was hyperthyroid. And I said that's just guess work. There's other symptoms involved in hyperthyroidism. There are clear signs of over stimulation that you can track -- temperature, pulse, blood pressure. There are so many other things. And 'm also just happen to be a fast kind of high energy talker. I'm from downtown Chicago originally. I have always been this way. And I had a doctor even tell me, she goes, "Well, I can tell you're over stimulated by the way you're talking." And I'm like, "Oh, lady, you don't even know who you're dealing. You have no idea."

Robb: Come visit my family.

Elle: Right. That's the biggest ridiculous statement made by a doctor ever. So, hyper or hypothyroidism isn't determined by blood work. It's determined by blood work plus symptoms. Again, in these cold studies where they see T3 lowered, were they hypothyroid? I don't know. They were just doing fine and their levels were lowered because they became more efficient and their body didn't need to produce this much T3. Do you know what I'm saying?

Robb: Right, right. So, maybe as a -- and I know you go through this in the book. But as people enter into this, keep an eye on what symptoms so that you could dig a little deeper. Like if you are new to Paleo Primal, you're modifying your diet, you cruise along pretty good. But then you're suddenly noticing, "Man, I feel like I need a sweatshirt," and it's really not that cold out and stuff like that. Then we start looking at selenium deficiencies. And clearly you go through this kind of process in the book. Ferritin and some of the other things that maybe the real factor and not necessarily that there are too many or too few carbs for your particular situation.

Elle: Absolutely. And also too, I mean, it's so individual, not just carb tolerance, but think about -- The people who are out there that then want to jump into a Paleo Primal life, were they wanting to do that because they were getting fat? And were they getting fat because they were already suboptimal thyroid? And then jump to the low carb and then it just made it worse because they didn't correct any of these underlying issues that had to do with that in the first place. Do you know what I mean?

And how can we -- There's no studies going on here. So, it is individual. But honestly, I find that -- I don't know what you see but I find that people who -- and I've made every mistake on the book on Paleo Primal -- but there's usually like an element missing. Like I'm doing everything right. But then you realize that they never actually got fat adapted because they didn't know that was a part of it. They just thought they were supposed to eat from a food list. That's the biggest misconception about Paleo. It's not just a food list that you eat. You can still be a sugar burning fool on a Paleo Primal food list. Just eat a ton of fruit and potato, you know what I mean?

Robb: Right, right.

Elle: And so, that's a misconception. On the other one, it's usually like they're missing -- they're still over exercising. They're still doing the over high intensity chronic cardio stuff and compromising their adrenals. There's one element they're missing. And same with thyroid. I see so many people that are like, "I've been on this train. I'm doing it right. I'm still not feeling well." And their iron storage is 30. By the way, everyone, ferritin should be between 50 and 100 for men and women but really looking at 50, 60 for females and it really needs to stay there.

When you're hypothyroid, everything slows down, slow temperature, low digestion. You produce less hydrochloric acid, stomach issues, gut absorption issues. Then, hence, not being able to absorb B12 and iron and D.

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That's why hypo patients are classically low in these things. And they are also very important. I had extremely low ferritin. Had I not taken iron while I was taking my NDT to get myself better the first time, I would have not ever gotten better.

Robb: Oh, totally makes sense. Totally.

Elle: Iron stores really matters on kind of, for people out there, sort of way to think about it is it's providing a way for your either own thyroid hormones or the ones you're taking to move and go to where they need to go. And if you have low iron and also low ferritin mimics hypothyroid symptoms, depression, petty legs, sex issues, stuff like that.

Robb: And again, like the B12, like all those things tend to happen in kind of lockstep together.

Elle: That's right. It's kind of this little storm of everything. Again, most uninformed doctors are only either going to look at straight, strict thyroid tests, and then they're not looking in all these other components. And in my book, I talk to everyone about like here's protocols for just optimizing your thyroid and reversing a potential problem from the get go before going on thyroid hormone. That should be the last resort.

But also, I don't want anyone out there to be afraid to be going on thyroid hormone. There's a lot of people who are like, "I'm afraid I might going to have to be on thyroid hormone the rest of my life." And I'm like, that's a funny statement to be. I'll never go off the rest of them. It wouldn't matter if you're on the rest of your life. You could live a great life on thyroid hormone. It's not this scary Pfizer medication that's crazy, that's going to really manipulate your system. It's just giving yourself what you need and don't have. However, I didn't want to go on thyroid hormone. I tried my best to not but when you have to, you have to and thank God it's there.

Robb: Right. Absolutely, yeah. Because as you said, the other outcome is not particularly beneficial. Well, Elle, we could go for hours on this. I want to be respectful of your time. Let people know where they can track you down on the interwebs, remind them about the name of your book, and then also remind them about your podcast.

Elle: Sure. Well, I'm the host of the Primal Blueprint Podcast. The Primal Blueprint was a book made famous by Mark Sisson. So, I'm sure your audience knows him. We do the same kind of stuff you guys do. You can go to my website, [elleruss.com](http://elleruss.com), or look for my book anywhere online, Barnes and Noble, Amazon. It's called The Paleo Thyroid Solution. People should be familiar with that title a little bit considering the title of your podcast.

Robb: Absolutely, yeah.

Elle: Just a word off there. By the way, that was not intentional. It just happened to be the best title I could come up with.

Robb: It's a damn good title. And I was talking to my wife this morning. She's like, "Who are you interviewing?" I'm like, "The author of The Paleo Thyroid Solution." And she's like, looking over coffee, she's like, "That's a good title." And so, yeah. And if Nicky likes something, it's amazing because she hates everything. So, that's actually good.

Elle: It's funny. It's a very cheap book. It's a great manual and resource. I've been getting great feedback from people all over the world. I suffered so greatly, so horrifically and I talk about that in the book in real detail. I mean, even an editor

at one point said, "Isn't this TMI?" And I go, "No. People need to know how bad it was so they understand." I was a complete mess. On another note, real quick too, just you know, in my book, relationships suffer when you're hypo.

You're overwhelmed, sensitive to sound, smell. You're edgy. You're over reactive. People get fired. People get divorced. This is not a joke. This is a serious thing. When people remain undiagnosed, these horrible things happen. And so I have letters in my book too, loved ones of hypothyroid patients talking directly to them, or a boss. So, you can even hand my book to a family member, you know what I mean? Or hand my book to a doctor and have them read the Q&A in the back with my doctor and where we talk about why are doctors uninformed about this? Why aren't they testing T3? Why?

And so you will hear from a doctor exactly why he thinks doctors failed. And it's a really important resource. The Paleo Thyroid Solution, for anyone out there looking to just optimize your own fat burning hormones but also for people who want to correct an issue or really need to optimize their own issue, if they're on thyroid hormone and still not doing well.

Robb: Well, fantastic. Well, Elle, you've done clearly an amazing job researching this topic. You are absolutely doing honor to any Chicagoan that I've ever met in my life. You're killing that. And I look forward to meeting you in real life. I get out to Sisson land every once in a while so I hope I get to meet you in real life soon.

Elle: Oh, please, let me know because I'm right in Sisson land. So, yeah, we'd love to hang out. Thank you so much for having me.

Robb: Great having you. And maybe sometime soon I'll bring down property values on you guys' podcast.

Elle: I hope so.

Robb: Okay, sounds good. I'll hold you to it. Well, thank you again for coming on the show and we will have all the information about your book and links to you, your website and your podcast in the show notes.

Elle: Thanks so much.

Robb: Awesome, Elle. Take care.

**[0:50:16] End of Audio**