

**The Paleo Thyroid Solution with Elle Russ  
PMR 140**

September 26, 2017

Tony Federico:

Hey Paleo Nation. I'm Tony Federico and you're listening to Paleo Magazine Radio, the official podcast of the original Paleo Lifestyle publication.

I usually start this show talking about my guests, but before I do that, I have to tell you something about myself that you might not know. It's a story that starts almost 20 years ago, back in the summer of 1998. It was the summer before I started my freshman year of high school. It was only a few weeks before the start of the school year. As is often the case, I had to get a physical before I could complete the enrollment process. During the exam, the doctor noticed a lump on my throat. After further investigation, it was determined that I had a potentially cancerous cyst on my thyroid gland. I was only 14 at the time, so I really had no idea what was going on, but nevertheless, it was decided between my doctor and parents that a partial thyroidectomy to remove the half of my thyroid gland that had the cyst on it was the ideal course of treatment. I don't remember being scared as much as I felt like I was on a ride that I had no control over. The train had left the station and I was a passenger who had no choice but to go on to the next stop.

I remember going into the hospital and being prepped for surgery, getting the anesthesia, and then everything going black. The next thing I knew, I was awake, but I couldn't lift my head and everything above my shoulders was in pain. What had felt like seconds to me was actually more than five hours, during which the doctors had my throat completely opened up while they debated what to do. When they initially made their incisions, they sampled a piece of the cyst, but it didn't check out with any known cancers. This uncertainty led to fear and this fear led to them deciding that instead of removing half my thyroid gland, they would remove the whole thing. As lab tests would later prove, I did not in fact have thyroid cancer, but once your thyroid gland is gone, it doesn't come back.

From that moment on, my life was dependent on thyroid replacement medication. The medication I was given is one of the most commonly prescribed medications in America. It goes by the generic name Levothyroxine, or the brand name Synthroid. Every six months I would get blood tests, visit my endocrinologist and get my prescription renewed. They always tested for TSH, thyroid stimulating hormone, a signaling hormone produced by the pituitary gland that supposedly indicates whether you have too much, too little, or just the right amount of thyroid hormone in your body. As it was, my TSH levels were on a perpetual roller coaster and so was my Synthroid dosage. I had bags under my eyes, would fall asleep in the middle of the day, and never really felt energetic, but my doctors never talked to me about any alternatives to Synthroid, so I soldiered on.

I graduated high school, graduated college, started working out, began to eat healthy, got into the fitness business, and began my career. Always assuming everyone felt the way that I did, but when I cured my chronic knee pain with barefoot running and resolved years of binge eating with a paleo diet, I started to question the conventional wisdom. I started to wonder what was really going on with my thyroid. I began to investigate whether or not Synthroid was the best way to treat it. As I looked deeper into the issue, I discovered that there were entire websites, books, and communities of people on line who had many of

the same issues I did. I learned that natural thyroid hormone replacement made from desiccated pig thyroids used to be the gold standard, but when synthetic thyroid, i.e., Synthroid, was discovered and marketed, the pharmaceutical company that made Synthroid went on a mission to discredit natural thyroid replacement and convinced doctors that it was unreliable, inconsistent, and unsafe.

With this knowledge, I demanded that my doctor switch me to a modern, natural thyroid replacement called Armour Thyroid. This was my general practitioner who wasn't an endocrinologist, but he had no problem prescribing me Armour Thyroid and wrote me the prescription without resistance. On Armour Thyroid, I began to come back to life again. The bags under my eyes began to go away, the mid-afternoon crashes disappeared, and I realized that I didn't have to do cardio for hours a day to maintain my weight. During this time, a realization began to slowly creep into my brain, a realization that said that I had been a victim for all those years and didn't even know it. I wasn't a victim of any single person, doctor, or drug. I don't blame my parents and I think everyone was acting in good faith. I do, however, think that I was a victim of an entire system, one that's bigger than any individual person and one that puts profits before people.

That's why I was so excited to meet Elle Russ. Elle found out who I was through my work with Paleo Magazine and several months ago she reached out to tell me about a book she's working on that dove into the subject of thyroid health, but from a paleo perspective. Elle was a health advocate who had herself suffered from years of medical mismanagement. She, too, had to learn the hard way. Elle and I had a great conversation about the proper ways to dose natural thyroid hormone. The nuances of T3 and T4 and how TSH alone is not a good indicator of thyroid function. We didn't record this conversation, but when Elle's book, the Paleo Thyroid Solution, was finished, I invited her to come on to Paleo Magazine Radio to share her story with you and to tell us about her book. Little did I realize that she was about to change my life in a very significant way, but I'll let you listen to that for yourself.

Before we get started, I want to take a quick moment to thank the sponsor of today's show, Ancient Nutrition, makers of the world's first real bone broth protein. Dr. Josh Axe, one of the co-creators of Ancient Nutrition bone broth protein, thinks that there's a problem with many of the foods people eat nowadays. "They're very hard on the digestive system and we're not actually absorbing a lot of the nutrients that we think we're getting on a daily basis." Unlike most foods, however, the proteins in bone broth are already in their amino acid form, which makes them extremely gentle and easy to digest. "Just sort of imagine them going into your intestines and your intestines aren't having to work. They're simply bringing it into your cells, bring these nutrients in, and so again it's very, very easy on the body." As you may imagine, bone broth is considered paleo for good reason, but even if you're not fully paleo, it can still do your body good. "It's friendly for a paleo diet. It's the number one super food recommended for the Gaps diet, the SCD diet, and anybody with especially digestive disease, this is one of the number one foods that's recommended for those people in supporting the health of their gut." You can hear more from Dr. Axe and learn more about Ancient Nutrition bone broth protein by going to their website, [ancientnutrition.com](http://ancientnutrition.com).

All right folks, it's time to check our free T3 Paleo Magazine Radio starts now.

Hey everybody, welcome back to Paleo Magazine Radio. I'm here with writer, actor, primal health coach, and co-host of the Primal Blueprint podcast, Elle Russ. Elle, welcome to the show.

Elle Russ: Hey, great to be here. How are you?

Tony Federico: I'm good. I'm good. You are somebody I've talked to before. We did sort of like a practice podcast I guess you could say. We're just getting warmed up on that first round, but we've had the chance to talk. Your new book, it's all about thyroid stuff. I've got a personal history with some thyroid stuff, so we were able to talk and you were able to kind of give me some ideas that I've actually been able to implement, so I want to get into that for today's show. Before we do that, let's go ahead and talk about you and get the executive summary. What's your background? How did you go from writer/actor to primal health coach and co-host of a primal blueprint podcast?

Elle Russ: Accidentally, basically. I was just sort of following my dreams and passions in the entertainment world and had some success and was moving along. Then I got hit with serious hypothyroidism and it kind of derailed everything.

Tony Federico: Tell us a little bit about your previous career. What kind of stuff were you doing? What kind of work were you doing in the entertainment business?

Elle Russ: I was actually primarily a sketch comedy writer and performer. I did improv and sketch comedy for 10 years. Everything you see on Saturday Night Live. I have lots of wigs and mustaches. Do lots of dialects. Performed live sketch comedy and improv at a very famous theater in Los Angeles for many, many years. Auditioned for many TV and film roles. Did voiceover stuff. I was on Brooklyn Nine-Nine last year, so I still act.

Tony Federico: Oh hey. Cool.

Elle Russ: Yeah, I still act, I still go out for auditions and do all that. I was just following my passions, then I got hit with some serious hypothyroidism, which took me out of the game there a little bit. I heard something, and I'll butcher the quote a little bit, I think it's by Toni Morrison who said something like, "If there's a book you're looking to buy and you can't find it, that means you need to write that book." If you had asked me years ago, because people be like, "Well, you're really into health and stuff." I worked out and was kind of into this stuff or thought I knew what I was doing. I would have said no way. No interest in coaching people in health. No interest in writing any book on health. Just not interested.

Until you get a serious health problem and then you find the solution. Then I was compelled to write it, there was just no other choice at that point. It became a passion. Accidentally, but you know sometimes things show up like that and you have to just go with it. Even though it was out of the realm of something I ever planned on or ever thought I would do. I

was so passionate about it. Because it changed my life ...

Tony Federico: Let me pause you there for a second, Elle.

Elle Russ: Yeah.

Tony Federico: The comedy world's not really known for being super healthy. Let me just say that. It's late nights, alcohol, smoky kind of comedy clubs and stuff like that. Give me a little bit of an idea of the health landscape that you were working in at that time. You seem to have had a passion for exercise and fitness maybe more so than your peers, but give us a little bit of a picture of what that world looked like in terms of health.

Elle Russ: Actually, what brought me back ... Initially, I did comedy many, many years ago. Then when I moved to LA and I started auditioning for major, series regular, TV, and film stuff, I was extremely fit and had that perfect body of a lead, leading lady. I was going out for those roles and it was awesome.

Tony Federico: Was that by design or accident as well?

Elle Russ: No, that was by design.

Tony Federico: Okay.

Elle Russ: I really wanted to be an actor and this is before hypothyroidism hit. At that time though, I was doing the low-carb, low-fat, chronic cardio, always kind of starving every two/three hours, we all know what that means now. I was a serious sugar burner, did not know it. I thought that this must be, because it was "working," right? I looked the pillar.

Tony Federico: You looked the part.

Elle Russ: I looked the part, but it was a struggle. It was a serious struggle. I remember even then thinking like, "Oh my God, how I'm going to maintain this? This is going to take incredible willpower." You and I both know why it took incredible willpower, because I wasn't satiated enough with enough fat. We all in the Paleo primal community know why that's the case now, but I was kind of a victim of conventional wisdom. I believe that that is what really spawned me into adrenal fatigue and hypothyroidism, because when you over exercise, restrict calories like that, and you're doing chronic cardio, that is just a recipe for your thyroid to just get wacky and shut down.

All the sudden I started to get fat. I started to have all these symptoms and I couldn't control it. I kept working out and I just kept getting fatter. Then it just became a complete mess ...

Tony Federico: Elle, what was that for you? Because I think as a personal trainer, I hear that. I hear that a lot. I always want to know what does that mean for you, because I have clients tell me that they feel fat and they're perfectly fine. Then I have clients who gained 5, 10 pounds and they say they're fat. It's like, you're not really.

Elle Russ: Yeah, I'll give you a real accurate picture. I'm 5'2."

Tony Federico: Okay.

Elle Russ: At the time when I was at my fittest, I was probably 110 pounds, 16% body fat.

Tony Federico: Which is pretty lean if someone's not up to speed on normal body fat percentages, especially for females. That's pretty lean. That's like an athlete level lean.

Elle Russ: That's right. I was. People would come up to me at the grocery store and be like, "Excuse me, you obviously work out, I have a question." I felt awesome about that.

Tony Federico: Yeah.

Elle Russ: You know what I mean? When you get those kind of comments.

Tony Federico: That was a positive reinforcer.

Elle Russ: It was a positive reinforcer, but again I was on this sugar burning cycle. I'd be three hours without food. I'd be going nuts having a meltdown, have to stop by a grocery store, freaking out. We all know now that that's just not the way to do it. It's against our genetics, but that's what probably really threw me right into a thyroid issue.

When we talk about weight, I went up to, at my highest, I was probably like 150 pounds. That is with working out two hours a day.

Tony Federico: Oh wow. Okay, so you're still doing the exercise and you put on about 40 pounds onto a 5 foot and change frame.

Elle Russ: That's right. Now I'm fat. Now I'm bloated. Now my hair's falling out. Now I have gynecological problems. Now everything starts to breakdown and I have this thought where I'm like, "Well, obviously, I can't audition for these roles anymore." Which I couldn't. Technically, you can't. It's just how it works. People want to see that person in that role fit that thing. I thought to myself at the time after being defeated and undiagnosed and I just thought "Oh well, I guess this is the way it is." I literally had this thought where I was like, "Well, I guess I should go back to comedy. I'll be the funny fat girl."

Tony Federico: Really?

Elle Russ: Oh yeah. It was a real sad day kind of. I had loved sketch comedy. I did it in Chicago, but I came out to LA to be a TV film actor. For me, it was a little bit of backtracking, but I thought "Well, it's still a way for me to act and do comedy and be involved. If I have to be fat, well, you know, at least I can be the fat sidekick or something like that." I really just kind of gave up there. What's funny about that is... Life works in very mysterious ways. Once I got into comedy and I started doing sketch comedy, I'm so glad I did, that's what actually turned me into a writer. I can thank hypothyroidism for lots of wonderful things. I think that's really the message is any kind of health problem ... You'll hear someone who got through cancer and they say it's the best thing that ever happened to them and everybody rolls their eyes. No, I totally understand that. Hypothyroidism was one of the best things that ever happen to me even

though I suffered and it took about six years of my life.

Tony Federico: Did you know at the time ... You gained about 40 pounds. You're having to change your career trajectory. You're obviously feeling some pretty significant side effects. Your hair is coming out. Did you know that was hypothyroidism? Were you diagnosed at that early stage or were you just living with it thinking that ... I don't know what you're thinking, but what was the awareness there of what was going on?

Elle Russ: It was me going to doctors who kept testing my thyroid incorrectly and telling me that my thyroid was fine and that I should just eat less and work out more, which is classically what happens all the time. I said, "I'm eating 800 calories a day, I'm working out two hours a day."

Tony Federico: Wow.

Elle Russ: He goes, "I don't know what to tell you. It's not your thyroid." I suffered and suffered.

Tony Federico: Let's go ahead and dive into that.

Elle Russ: Let's do it.

Tony Federico: We'll get into more detail, but let's just say snapshot right here. Go back to those times, what was your doctor testing for? What were they looking at and what was throwing them off the trail?

Elle Russ: Classically, uninformed doctors. There are way too many out there. If you're ever told your thyroid's fine, don't believe it. Look into the numbers. Read my book. Call me. Anything. Here's the thing, they only classically test one thing called the TSH, which is a brain signal that sends a message to the thyroid to say to wake up. That would be like, without getting into ... We can get into if you want, how the thyroid works, but at the end of the day, would be like ordering a package from whatever ...

Tony Federico: Amazon.

Elle Russ: Amazon. You order a package from Amazon. It never shows up, so you keep reordering it.

Tony Federico: Got it.

Elle Russ: It's like, "No ...

Tony Federico: That's TSH.

Elle Russ: That's kind of TSH. It's like, "No." Actually, in order to get to the bottom of it, you don't keep placing the damn order. You find out where the hell the package is, right? You call tracking. You call shipping. The shipping and the tracking, all the matters is that you receive the package. It doesn't matter how many times you order it.

What they're doing is they're testing the TSH only, which is what they learned in medical school, 30/40 years ago. It's a 1973 test. That's the year I was born, everybody. That's an old test. I'm 42. That is classically

what happens. They're not testing thyroid hormones properly. What needs to be tested at the very least is TSH free T4 and free T3. Free T3 is really so important. That is the test that most endocrinologists even miss. Unfortunately, and I hate to say this, but endocrinologists are classically the worst people to see for a thyroid problem, because they are so entrenched in ego and entrenched in the old paradigm of thinking. They haven't really gone above and beyond their training. They classically will only test T4 and TSH, always missing the free T3. That's why there's been such a surge of knowledge and doctors getting onboard over all these years, because that has failed so many people.

Eventually, some of the smart doctors started to go, "Why aren't my patients doing well even though they're on thyroid hormone?" You know, "Why are they still not doing well?" Those doctors are awesome, because they go, "Let me go find out." The endocrinologist and these other uninformed doctors, they just go, "Well, it is what it is." When people are struggling ...

Tony Federico: That was your experience?

Elle Russ: Yeah, that was my experience. Many doctors. Many, many, dozens. Dozens of doctors. What happened was, and ultimately this is what my book's about and I even have any expertise to write such a book is I did it myself. I ended up actually having to be my own doctor, twice in 10 years. I solved two serious bouts of hypothyroidism on my own, dosing myself with thyroid medication, not something I suggest. I'm just saying that ...

Tony Federico: Extreme times call for extreme measures.

Elle Russ: It does. That's right. I was left in the dust. I didn't have a choice. I was slowly dying. Everything was just ... It was so bad, I even told one person on a podcast, I said, "You know, if I ..." At one point, I thought I don't care if I have to go to an ashram in India or ... I don't care, I'll go to the ends of the earth at this point, because I will not live like this. This is not a life.

Tony Federico: Tell me, what was a day like for you then? What was your personal experience being in the throws of hypothyroidism?

Elle Russ: Gosh, aside from ... Well, I had developed a uterine fibroid, so I had lots of bleeding and cramping and gynecological issues. I was misdiagnosed with polycystic ovarian syndrome and all sorts of things I didn't even have. It was all just related to the thyroid being off. It was a horrible existence. I had over 30 symptoms and there are so many that are just classic. Aside from my body temperature was almost 96 degrees, consistently. Humans should be 98.6, so ...

Tony Federico: Were you feeling cold and ...

Elle Russ: Freezing. Freezing all the time.

Tony Federico: Freezing all the time.

Elle Russ: Acne. Had perfect skin my whole life, started to get acne. Hair falling out. Hair felt like straw or rubber bands. So fat and bloated, like I just

drank an entire bottle of soy sauce. Bending my leg and feeling that horrible bloat tightness that, you know? It was like I just literally injected MSG into my body. Also, aside from that, there's skin thickening and other awful things that happen with severe hypothyroidism. Your skin starts to thicken. So many different things. Low iron, anemia. The depression is the worst. We have more T3 receptors in our brains than almost any other organ in the body and that's why depression happens. A lot of people think, "Oh, well yeah, that person's depressed, because then they gained weight because of their hypothyroid and now their upset because they're fat." Well, that's part of it, but it actually really affects your brain. The depression is horrible. I cried all the time. I never went out. I was at home for years. Friends thought I was a party pooper. You end up having a very isolated existence. You don't have much energy to even get ... Sometimes you could sleep 10 hours, wake up, and it will still take another three hours to even just get any kind of energy, if at all. Which is usually low cortisone, adrenal problems that go hand-in-hand with hypothyroidism too.

I was literally like a living, breathing, crying, acne-ridden, bloated, fat mess. Here's the thing, I still ... When I was super fit, when I told you about those stats ... Before hypothyroidism, I actually, you know what, I used to kind of judge people that were overweight. I'm going to be honest about that. I used to look at people and be like, "Oh come on, stop eating."

Tony Federico: Thought they just weren't trying hard enough.

Elle Russ: That's right, and you know what, I am grateful that I was smacked in the face with a problem that I couldn't control so that I could see what it was like on the other side, because I had an experience once hanging out with some actors. I was seriously hypothyroid and I was taking some improve class and we're chatting in the hallway. Someone said about, they were talking about working out and how they can't kind of go a day without working out. I chimed in and I said, "Ugh, me too. I just don't feel right if I don't work out." One of the people looked at the other people and rolled their eyes like "Yeah, right, she works out."

Tony Federico: Wow.

Elle Russ: I balled my eyes out that day. I balled my eyes out that day, because I wanted to be like, "You don't know what it's like. I'm trying." You know what I mean? After that, you become extremely compassionate for other people. When I see people that are fat and bloated or have a bunch of acne or look like they might be unhealthy in some way, there's no judgement. In fact, to me it's more like concern. I'm sending vibes their way like, "Gosh, I hope they find out what's wrong with them."

Tony Federico: Right.

Elle Russ: You know what I mean? Because I know what it's like.

Tony Federico: You don't just default to the personality flaw explanation.

Elle Russ: Not at all, because I had so many things that were going on with me and I went to dozens of doctors. It's not like I didn't try to even get better or fix the problem and I was dieting. I'm not surprised. I know other person

who had hypothyroidism too and they also were very judgmental in that same vein. In a way, that's positive too. That's a positive too to be smacked in the face with a judgement that. I'd like to just offer that to everyone out there. You don't know what's going on in someone's body. Also, someone could be really skinny, could be seriously diabetic, doesn't mean they're healthy either, right? You and I both know that. I think it's judging what someone may or may not be doing to help themselves is a gross over judgement when it comes to strangers. That was kind of a nice a benefit too.

Tony Federico: How long was this period of time? You're fit and you had the look. You had the whole image that you wanted even though you're exercising and dieting to get there. You had that going on and then things started to slip away from you and you started gaining weight and you started having all these symptoms. How long of a time period were you in that undiagnosed hypothyroid period?

Elle Russ: For about two years.

Tony Federico: Okay.

Elle Russ: Then I finally was diagnosed properly. Even though I was diagnosed properly, I had no money. I was so broke after all the doctors that didn't do anything for me.

Tony Federico: Was this a doctor who ultimately did diagnose you or was this something you went out and somehow procured your own test?

Elle Russ: I read one of Suzanne Somers' books on hormones, because I thought maybe I just had a hormonal problem since everybody's discounting the thyroid. She had mentioned a doctor in Beverly Hills.

Tony Federico: Really?

Elle Russ: Long story short, I went to him, but he was like \$600. It cost me \$600 just to get diagnosed properly. I didn't have any money after that to continue to go on with that doctor, but at least someone said, "Oh my God, you are seriously hypothyroid." Finally, I was like, "Okay, now I can know what to do now." It's not just like I have a hormonal imbalance. I do, but it's from the thyroid. Then that led me down the train. Because I didn't have any money and all these doctors had already failed me, I said I don't trust them. I did a bunch of research on my own. I talked with some fellow patients who kind of guided me through some things and gave me some ideas. I ended up taking it on my own. I was able to work from home at the time, so I just researched and I did everything that I could to get better and I did and it worked.

Tony Federico: What did you do? Because hearing that I'm thinking, "Was she ordering thyroid hormone online?" What were you doing? How did you get yourself well? What does that actually mean?

Elle Russ: Yeah, I did. I ordered thyroid hormone through the internet. I started it that way. I had used some doctors to get the blood work. I still had insurance, so I could easily just go in and have them do the blood work, but that doesn't mean I would allow them to dictate how to help me. It was more just like to use them for the blood work. That's how I got some

blood work. I went from there. I had low iron at the time, so I treated my low iron while I was also starting to dose the natural dissected thyroid hormone. I started feeling better and better. Within first six months, probably dropped 10 pounds just without even trying. I'm sure a lot of that was extreme inflammation. It just got better and better and better. Finally, I got optimized on my perfect dose. I was doing great. I felt great for about, for like six or seven years. I was feeling really good, but I still didn't know about Paleo Primal. It wasn't even really a thing at the time, so I was still eating under that old damn paradigm. I still felt like it was a struggle.

Tony Federico: Before we get into Paleo Primal, I think this might be a good time to kind of break down a little bit more detail on the thyroid hormone itself. To kind of summarize where we're at right now, you had undiagnosed hypothyroidism because doctors were testing your TSH, which isn't even a thyroid hormone specifically. It's generated by the pituitary gland. Your pituitary was kicking out this hormone and that wasn't a good indicator of what was really going on physiologically. You did the free T3, what was the ...

Elle Russ: Free T4.

Tony Federico: Free T3 and free T4.

Elle Russ: They were both at the bottom of the range, one of them was below the range.

Tony Federico: What does that mean biologically? You had TSH ...

Elle Russ: I'm dying. I was slowly dying, literally.

Tony Federico: Why was the TSH normal?

Elle Russ: No, the TSH was ... Here's the thing, it was within range and it was somewhat low within the range, but again, that's an uninformed doctor who just says, "Well, it's in range, looking great." What they're testing is, again, they're continually reordering the package. Why aren't you testing the thing that actually matters, which is the thyroid hormone in the blood that is the biologically active thyroid hormone, which is T3. Had anyone at that time during the two years tested my free T3, I would have caught it early. I would have caught it right away.

Tony Federico: Tell us a little bit about the difference between T3, T4, and then this further designation of free T3, T4.

Elle Russ: Here's really how it works in a nutshell. There's really only three things ... There's some other peripheral things, but three tests and three things that matter, which is TSH, free T3, and free T4. Here's how it works. The brain, the pituitary, senses that the body's low in thyroid hormones, T3 and T4, and it will send a signal to wake up the thyroid to make more hormones. Either it receives the signal and doesn't do anything about or it receives the signal and doesn't output enough. There's lots of different things that can happen as to why you won't get the right hormones, but the bottom line is that is kind of how it works.

The free T3 ... T4 is very interesting. Our bodies have this really

interesting slow release sort of mechanism called T4. For example, I'm on a medication, a thyroid hormone. I'm on T3 only. It's extremely rare. No one in this audience listening probably right now would need to go on T3. It's the last resort for thyroid treatment. It's a very nuance thing. Most people will never have to deal with it. I bring it up to say that I've had almost no T4 in my body for four years. Okay? T4 is a pro-hormone. It is useless unless it converts into the biologically active hormone T3. T3 is what gives us life. It is the energy. It's the coal on the fire. It is the only thing that really corresponds. Free T3 levels in a person correspond with how they're feeling. It's the only measure we can test. We can't even necessarily even test thyroid hormone metabolism per se, but we can get an idea from the free T3. Why is it called free? Free means unbound and available in your blood.

Tony Federico: And biologically active, because when you say "pro-hormone," immediately my mind goes ... This kind of dates my exercise history. I remember the Mark McGwire era in baseball and when he was getting a little scrutiny and he was like, "Well, I'm on androstenedione, a testosterone pro-hormone, so it's not testosterone, it's this pro-hormone." All these people, myself included at the time start going out and buying this pro-hormone thinking we're going to get the effects of the actual active hormone, which is testosterone. Low and behold, that's not the case. You actually get a bunch of side effects with no real kind of positive outcome. That's kind of what's happening as I understand it with this T4 dosing. Most people, and correct me if I'm wrong, most people when they get thyroid medication from their doctor, they're just getting T4 in the form of maybe like Synthroid or something?

Elle Russ: Right. I'm going to explain term, because it is very important. T4 by itself often fails a lot of people. The way our body works is when the signal's sent ... I'm talking about someone who's got a properly working thyroid right now. Normal people. The thyroid will dispense about 80% T4, about 20% T3, and about 40%-50% of that T4 is going to convert as needed into the T3. T3 is so powerful. It acts quickly and dissipates quickly in the body. T4 has a very long life. It's a steady thing. Basically, it's this really smart mechanism for releases this powerful thing when you need it and whatever T4 is not used is flushed out through the body through a system called reverse T3, which we can get into or not get into. That's kind of how it works.

Tony Federico: Is there an enzyme that converts T4 to T3?

Elle Russ: Yes, there's a couple enzymes. They're called deiodinase. Those are involved. Selenium is an extremely important nutrient in the conversion of thyroid hormones. I had a selenium deficiency. That could have been part of it. If anyone is worried about having a thyroid issue. One of the first things anyone can do is go take 200 to 400 micrograms of selenium per day to really help with the conversion. Anyone who's on thyroid hormone should be taking that every day to avoid a conversion problem.

Everything was great. I was taking a T4/T3 combo, just like you are currently, like a natural desiccated thyroid. The reason T4 is ...

Tony Federico: Again, because these might be things people aren't familiar with ...

Elle Russ: Sure.

Tony Federico: I know what you're talking about, because I take a natural desiccated thyroid. For someone who doesn't know, could you explain what that is versus the T4 only Synthroid that most people get.

Elle Russ: Right. I'll just describe a little brief history. What happens was back in the late 1800's, people who were seriously hypothyroid and a total mess, this one brilliant doctor decided to extract sheep thyroid from a sheep and inject into a human and it worked. Then was born desiccated thyroid, which comes from pigs. It's literally like chopped up pig thyroid gland and it is in the same ratio as sort of ours is. Each pill of that has about 38 micrograms of T4 and about nine micrograms of T3. It has both. That is most mimicking how our system works anyway. Cut to T4. In the 1950's, drug companies could not patent desiccated thyroid hormone.

Tony Federico: Because it's a natural product.

Elle Russ: That's right, so they came up with Synthroid. Then they bagged and put propaganda against natural desiccated thyroid hormone and then every endocrinologist in the country became a Synthroid nazi and it became the one stop, end all be all for thyroid health until people started to be sick and it wasn't working and it started to fail people. If you really think about it ... Here's the thing, these doctors that are just prescribing Synthroid and T4 right out the gate and don't consider anything else, all they're looking at when they test these patients is their TSH and T4. Why aren't they testing the thing it should be converting to, that's the only thing that matters? Why? Because they weren't taught in medical school. Why does my doctor test it? Why do other informed doctors who know what they're doing? Why does your doctor test it? Because they know more. Because they're not just going on what they learned 30 years ago. They've actually decided to go above and beyond their initial training.

That's really been a problem for a lot of patients. Synthroid starts to fail them, they don't know why. The doctor keeps testing them, saying you're fine, but they're never testing their free T3. You can give anybody all the T4 in the world you want. It doesn't matter ...

Tony Federico: If they're not converting it.

Elle Russ: Until it punches into work. It's got to not only convert into the T3, but then the T3 needs to get into the cells. No point in driving around the office building and never punching into work. You're never going to get paid, right?

Tony Federico: It doesn't count.

Elle Russ: It's a similar thing. It's driving around the office building. Until people get their free T3 tested along with free T4 and TSH, they're not going to see the whole picture. There's other things involved too, like Hashimoto's test and things like that.

Basically, I was on what you're on and I was doing well for many years. Everything was converting fine.

Tony Federico: The desiccated pig thyroid was working.

Elle Russ: Totally working great. The only thing in that arena was that I still didn't understand fat adaptation and I was still on a bad diet, so it was still like a struggle to deal with the weight loss. I was still hungry every two, three hours, but I was feeling great. Then, one day I started to get like what were hypothyroid symptoms, but you'd think I would have recognized them as such. In my mind I was like, "I'm on thyroid hormone, so how is that even possible?" What happened was I developed a reverse T3 problem where the T4 I was taking stopped converting into the biologically active hormone, T3, and started to convert into the inactive form, which is reverse T3.

Tony Federico: Any insights why that might have taken place?

Elle Russ: Yes. Selenium deficiency is a big one, by the way, and I did have that. Later on found that out, but did have that. Any kind of stress. Stress is a real contributor to that. That includes chronic cardio. That includes all this stuff, right, so that includes the Paleo lifestyle stuff, blood sugar, cortisol. All that stuff is related. Any kind of inflammation. Something like Lyme's Disease. Any infections. Liver issues. Stagnate liver can also cause conversion problems. Even if someone's on thyroid hormone, in order to make sure it's being metabolized and converted properly and getting to where it needs to go, you need to have a few things in place. You need to have good iron storage level, which is usually not there sometimes for people with hypothyroidism. When you have hypothyroidism, sometimes your body doesn't hold on to certain nutrients. Often, hypo patients are low in vitamin D, low in ferritin iron storage, low B12, low DHEA. There's lot of things, so usually you have to do everything together. You have to support adrenals. You have to get iron in check. You have to make sure all these levels are up. Then you live the Paleo Primal lifestyle.

Either you correct it naturally that way, totally possible. There are people that have reversed thyroid issues through just lifestyle and diet. That absolutely can happen. When it doesn't and you have to go on thyroid hormone, you still need to make sure all these things are in place. Here I was, and I hadn't even become an expert yet, I was just so excited to be better, I never even wanted to see a doctor again after that. I was like, "I'm feeling great. I'm just taking this thyroid hormone." Until it started to fail me. I started to get these symptoms again. I was so frightened about it. Then that was another scary world to be in. So few doctors in the whole world will even prescribe a patient T3 and that's kind of sometimes what you have to do to fix this problem that I had.

Tony Federico: T3, that's something that I first found out about through the bodybuilding world and it's a popular addition ...

Elle Russ: I'm glad you brought that up.

Tony Federico: To the cutting regiment in addition ... Cytomel, I believe it's ...

Elle Russ: That's right.

Tony Federico: The brand name is the T3 only. Bodybuilders will take this during their eight-week cut going from 280 down to 250 pounds or whatever they're

doing. In addition to other "supplements," of course, but that's where I first found out about T3. How did you get queued in on T3 only supplements and how did you become aware of that as an option to get you out of this next level of hypothyroidism challenge?

Elle Russ: I'm really glad you brought up the bodybuilding stuff. If bodybuilders will cycle and screw up their thyroid for six to eight weeks to burn a ton of fat, what does that tell you about T3? It's a crazy fat burner. It's a crazy fat burner.

Tony Federico: If bodybuilders are using it, there's probably a reason.

Elle Russ: Right? Here's the thing. That's really the key here. Like I said, I haven't had T4 in my body for three years, do you know what I mean? Everything's great. Now, that being said, I will go back on a T3/T4 combo and I definitely look forward to that, because being on T3 only takes a lot of attention to detail, because it is ... Once you take direct T3, it peaks in your body within about two hours and then it kind of dissipates and gets saturated in your tissues within four hours, which means you have to dose three to five times a day. There's lots of fluctuations. That's the nice thing about T4. When it converts properly, it's doing it for you.

Tony Federico: Yep. It's kind of autopilot.

Elle Russ: Yeah, it's autopilot. It's a real pain in the ass to be on T3. I wouldn't recommend it, but it is a lifesaver, because, here's the thing, T3 will not convert to reverse T3. Only T4 can convert into this inactive form. You have reverse T3 levels, everyone does. It's our body's natural way of getting rid of the excess T4 that's not converted into T3, then it just washes out. When it starts to convert too much, then a person even on thyroid hormone, might look like they have decent thyroid levels even, will be seriously hypothyroid unless they also test reverse T3 and understand that.

Then I had this second problem. Then I really knew I was going to be screwed here, because I knew that once I discovered it, I realized that it was so rare, even though it's an ever-increasing problem right now with thyroid patients, that I literally sobbed in my car after the doctor's appointment because I ... My doctor looked at me and she goes, "This is too complicated." Literally, what she said to me. I go, "Really? Medical school wasn't too complicated? The MCATs weren't too complicated?" No one was willing to help me, so I knew that I'd be on my own again. It was really frightening. I had doctors tell me I was going to kill myself, give myself a heart attack.

Tony Federico: Oh, by being told that ...

Elle Russ: Taking T3.

Tony Federico: You're like, "Hey, I'm just going to take straight T3," and they're like, "Oh that's a terrible idea?"

Elle Russ: Yeah, they're like, "We're not going ... I can't prescribe you that, I would lose my license." I was like, "Eh, I don't believe you."

Tony Federico: You knew that this was something that would eliminate all of the potential for conversion issues and everything like that. You were aware that T3 could be a solution?

Elle Russ: I was and here's the thing, for anyone out there who has a conversion problem or wants to learn more about T3 only, the only book, it's just dedicated to this entire subject that is literally a book that saved my life, is called "Recovering with T3," by Paul Robinson. He's a guy from England who's just like me. He actually just self-published this book just because he actually never had the ability to convert T4, so he was sick for like 20 years until they figure it out. He has ...

Tony Federico: I'm going to include a link to that. Actually, I found it very quickly, so awesome. We'll be able to include a link for any of our listeners.

Elle Russ: Yeah, I would. That one saved my life. Actually, reading that book made me go, "You know what, I know this is right." I also knew that and I learned from other fellow patients in online forums that ... The thing is, when you start taking ... If you have a reverse T3 problem and your T4 is not converting, what you have to do is you kind of get rid of the T4. I slowly weaned myself off of the natural thyroid hormone. Then I started to take T3. This is the way you can look at it. When you have this problem, T4 converts into reverse T3 and you can kind of imagine reverse T3 as like a guard in front of a door blocking the entrance to the cell. Even though your T3 levels might look good on a test, you're feeling hypothyroid and you're wondering why. That's why we do a ratio between the free T3 and the reverse T3. They're online calculators. You can just type in your free T3 result and your reverse T3 result, which have to be taken at the same time. Usually a ratio of 20 or higher is healthy. Mine was like 12. My ratio was like 12. [Crosstalk 00:41:20]

Tony Federico: Your reverse T3 was blocking. It was thyroid blocking.

Elle Russ: It was high and it was bad. I started to fear that I would get another gynecologic issue. I was just so afraid of what this was going to do to me. That was another year and a half, although I was a little bit more on top of it and knew some resources to go to find out and then someone let me know about this guy's book who had just come out at the time. It was a real life saver for me. Again, I was on my own and had to correct it on my own, so I did.

I'm still on T3 only. It's been four years now. It's great, but, again, it's one of these things that does require ... It's too much fluctuation. It requires a lot of attention to detail. It's also really hard to get. If I were to travel to another country and ran out of my T3, I don't know that I could convince any medical professional to give me T3 only. That being said, if I were in that situation, I would take Armour Thyroid or even T4 it was available. I would do whatever I could. It's kind of a little bit of a dangerous place too, because it's so fast acting. I probably couldn't go 48 hours without my T3 without maybe some complications. In the event I get into a car accident, I'm in a coma, God forbid, that would be a scenario where people would have to know what I was on. T4 ...

Tony Federico: Thankfully, we're doing this podcast, so lots of people know the situation.

Elle Russ: And I'm not driving. Right. I'm not driving. Also, basically, T4, like what you're on right now, if you just stopped your thyroid medication today, it would take a good 10 or so days for that T4 to really dissipate. You might start to feel kind of depressed and sleepy 10 days from now, but it just takes longer to get out of the body. It's more stable and that's why doctors would prefer that patients do have some T4. Frankly, if you're on a T4/T3 combo, that's more [Inaudible 00:43:01]. As I told you, the thyroid doesn't just pump out T4 and rely solely on conversion. It also pumps out direct T3. Armour Thyroid, desiccated, or any kind of T3/T4 combo, there are doctors who can compound and exact the medication within a microgram for a patient. There are patients that can feel the difference between a couple of micrograms.

There's so many different ways you can couture the thyroid hormone for a patient. Generally, people do really well on what you're taking, natural desiccated thyroid hormone, Nature-Thyroid, West-Thyroid, Armour Thyroid, those are kind of the classic name brands. More and more now, there's more and more reverse T3 problems happening. What you and I know about chronic cardio stress, the modern world. This is why, nutrient deficiencies, grains, bad gut health. Gut health is also responsible for conversion. Basically, the Paleo Primal life is absolutely in line how our thyroid [Inaudible 00:43:59] works. Whether you want to correct it naturally or whether you want to optimize what you're already on or whether you just want to get better because you know you need thyroid hormone and every doctor's telling you, it's all possible, but you're probably not going to have the most success unless you live a Primal Paleo lifestyle as well.

Tony Federico: How did you come upon Primal Paleo, and you said it was one of the things you attribute to helping resolve some of the other lifestyle issues that were feeding your thyroid mis-function. Where was your first exposure to Primal Paleo? How did that come about?

Elle Russ: I told some people at the beach that I'm friends with that I had gotten a job with this guy named Mark Sisson ...

Tony Federico: Okay, so back up ...

Elle Russ: One them screams, "Mark Sisson?"

Tony Federico: How do you just get a job with Mark Sisson? What does that job posting look like? What was that interview.

Elle Russ: It was a great interview, because Mark's hilarious. I just wanted a job in Malibu where I lived where I didn't really work full-time or even fully part-time, but just kind of like help out. I just kind of wanted to test the waters there and some of that stuff. I actually had three opportunities with three different writers, oddly enough, in Malibu. I met with Mark and I was like done. I worked with him and I would be in his house. I'd stop by. I'd do errands for them or odd jobs here and there. I read his book when I first started working there, but I kind of like flipped through it half-assed, because I read the "Zone," I read all this stuff. I was just kind of flipping through going, "Yeah, yeah, coconut oil's good, grains are bad, whatever." You know, I was like, "Yeah, yeah, yeah." Read it all and I kind of didn't even really, I didn't even adopt. I didn't even stop eating grains or anything.

Tony Federico: Really?

Elle Russ: Yeah, but you know what, here's the thing, I still wasn't able ... I was doing hot yoga six days a week, I was working out. Even though I was on T3 and I had solved the reverse T3 problem by the time I met Mark, I couldn't lose the weight I had gained from that last bought. I could not. I was like, "What the hell?" After about a year of being close to Mark, after looking at him and Carrie, I was like "Wait a minute, these guys are like 20 years older than me and they look 1,000 times better than me, this is wrong." I actually watched his transformational seminar, which is like a two-hour seminar he gave in Chicago. That changed my life. Then I was like, "Okay, now I really get this." I went back and read the book and then I did it. Then I really started to get success, but like everyone else, like a lot of people, I made classic mistakes along the way for quite a while.

Tony Federico: Even though you had Mark Sisson right there, you could've talked to him, you still ...

Elle Russ: I did. I talked him. He'd be like, "What are you snacking on?" I'd be like, "Nuts." He'd be like, "Oooh, be careful." Each mistake, I would talk to him, but also when you work someone like that, you also don't want to bug them with their time with dumb questions when you can actually just go to their blog and find out. I actually would go to Mark's Daily Apple a lot to try to find out some information. I did speak with him and people in the company, but I still was making mistakes, then I became Primal health coach, realized more.

What really did it was, I had always had what I thought was a real problem, an obsession with food, and a sugar addiction, I had some mental problem like I would have to go to Over Eater's Anonymous. Why did I have to use so much willpower to control. That's what really, aside ...

Tony Federico: You thought there was something wrong with you. You just thought this ...

Elle Russ: Yeah, inherently wrong with me, like I'm messed up somehow. Then, when I got fat adapted, I was like, "Oh my God. I cannot believe I lived all those years like that when this is how it could be." Now, honestly, I rarely think about food. That sounds really messed up to even come out of my mouth, because it's all I thought about. It's all I thought about. It was just on my mind constantly and wishing I could eat more than I could and trying so hard not to eat the sugar. Look, when you're hypothyroid, not only does every system in the body get out of whack, but also things like candida. I had candida. I had inflammation. I had fibrocystic breasts. I had all of these things that no amount of Paleo Primal living could just solve on its own completely. Sometimes you need to look a little further, especially if you've been sick for a while. If you've been sick for a while, then you might need some supplements. You might need to do some other things. I started to do all of those things. What I noticed is that I was able to drop my dose of T3 in half, which is pretty substantial.

Tony Federico: Oh, okay.

Elle Russ: Then I just kept lowering it. I started to be like, "Hmm." I just started to find out all these nuances and basically I was my own science experiment. Through that and through all the success that I had, I finally felt like in the first time in my life, and I'm still so excited about this, that I don't think about food. It's really crazy. When I do, it's just a lovely thing, then I eat and then it's wonderful, but it's like ... If you've ever been there, you know what it's like. It feels like you're going have ... I used to be a smoker. It's almost like when you're a smoker and you're so addicted, the thought of even quitting or not being a smoker is "I don't even want to know what that's like, because I don't ever want to not want that." When you are an addict, sugar addict, and when you're a food addict and you eat lots of food and you overeat, which is also inflammatory, and someone tells you in the Paleo Primal community, "Oh it's so great what little amount of food you can get away with," you don't want to hear that. You're like, "Well, I want to eat more food than I'm eating now." The idea of eating even less food seems like hell.

Tony Federico: Which is why you exercise two hours a day [Crosstalk 00:49:25]

Elle Russ: You could become fat adapted, it's amazing what happens. It's amazing. It's just amazing. It changes your brain, your life. It wasn't just that, but it also was that thyroid hormone metabolism became even more optimized.

Tony Federico: That's awesome.

Elle Russ: There was the connections there and then there's all sorts of nuances of course to that. It was like a light bulb went off, because I had been helping people with thyroid stuff for a while because of what I went through. People would say, "You know, you should write a book," and I'd be like, "Eh, all the books have been written, what am I going to write," because I didn't feel like there was any angle that hadn't been discussed, but yet I still couldn't find that damn book I wanted to read, which was like "How do I lose the weight now even though my thyroid hormones are great? I'm optimized, I feel wonderful, but why can't I lose this damn weight?" That's the book I couldn't find, so I wrote it.

Tony Federico: Beautiful. I don't know if the book was done, I think you were just about done with it when we talked the first time and this was an off-the-books talk about your book, you were talking to me about my own thyroid issue. My issue, in case anybody's hearing this and is not aware, when I was, I think I was 14-15, I had a cyst or a lump on my thyroid that was noticed during a routine physical. This was before going into high school, my freshman year, so first year of high school, noticed a lump. They did a fine-needle biopsy. There was some kind of gunky blood in there and that's like a red flag of possible cancer. A week before starting freshman year of high school, get my thyroid removed completely. Initially, it was supposed to be a lobectomy, so they're supposed to just take out one-half of this butterfly shaped gland. They went in, they weren't able to determine if the cyst was cancerous or not, so they went with the whole kit and caboodle, took the whole thing out. Fifteen years old, just starting high school. Walking into the high school day one with a bandage on your throat, that's not really a great experience in and of itself.

Elle Russ: That's not a popularity winner.

Tony Federico: Definitely doesn't win over any new friends, but that also marked the beginning of my relationship with Synthroid, because, obviously, I'm a kid, I didn't know any better. I started on Synthroid at that time. Basically, I was on just T4, like we were discussing, this whole time.

Elle Russ: Probably just once a day in the morning ...

Tony Federico: Once a day in the morning.

Elle Russ: Which is the appropriate dosing for T4. People with T4 usually don't take it twice a day. They take it once.

Tony Federico: Yeah. I'm on that and this is years and years and years and years. It seemed like I always needed more, so they kept giving me more and more.

Elle Russ: Why did you ... Tired? You just weren't feeling right? What was it that you kept going back and going something ...

Tony Federico: That or my TSH levels were high, so they're like, "Okay, your pituitary is saying that you need more thyroid hormone, so let's give you more T4." Kind of going back to what you were saying before, this isn't really the way to solve it, but that's what they were doing. At a certain point, I was just like, "This can't be right." I think I had some awareness of Paleo. This is probably just when I was getting into it, probably maybe like five years ago or so. Right before I moved to Jacksonville, so maybe more like four years ago. I went to my doctor and was like, "Look man, I heard about this thing, desiccated pig thyroid. I want to give it a shot just because I'm passing out, literally straight up passing out at 2 o'clock in the afternoon every day, can't even stay awake."

Elle Russ: Classic.

Tony Federico: "I'm working out like insane and I'm definitely not losing weight. I'm definitely not ripped. In fact gain weight very easily. I look at food and I gain weight."

Elle Russ: Yeah.

Tony Federico: Cravings for sugar. What you were saying about thinking that your mind was just a sugar ... Thinking that you were just a sugarholic. I 100% relate to that statement.

Elle Russ: You feel like you're defective. What doesn't everyone else have a problem, but like I have a problem?

Tony Federico: There's an instance where my wife and I were at a wedding and we were supposed to be out on the dance floor dancing and I kept sneaking back to the dessert table.

Elle Russ: Oh totally.

Tony Federico: Literally, a problem. I had a problem with sugar. It was like an addictive drug-like substance for me. I talked to a doctor who just, frankly, I don't

think he cared enough one way or another, he was just a general practitioner, he wasn't an endocrinologist. He was like, "Oh sure, I'll write it for you." That's how I got on Armour Thyroid. Started feeling significantly better. [Crosstalk 00:53:55]

Elle Russ: You were getting some direct T3, yeah.

Tony Federico: Now I know that. A couple years into that, that's when we first talked. When we talked the first time, I was like, "Oh, I'm on this desiccated pig thyroid." I'm thinking I got it all figured out. You gave me a couple tips. This is what I'm getting at. You gave me a couple tips. Let's say someone's already kind of broken out of the mold of Synthroid only. They're suffering from hypothyroidism. They've been on Synthroid and it's not working. They get onto the natural thyroid hormone, they're feeling better. That's where I was. What you told me, you were like, "Okay, start trying to split the dose. Don't take it all at once." What I'm thinking and realizing is that's kind of spreading out some of that T3 portion.

Elle Russ: Right.

Tony Federico: I started doing that. After last time we talked, I started doing that every day.

Elle Russ: Couple months ago, right? That was like ... okay.

Tony Federico: A few months ago. Here's my question to you, because this we haven't talked about and want to know what your thoughts are, because I don't really know, frankly, what to do, and hey I'm talking to the person who wrote the book on the Paleo thyroid fix. I think my endocrinologist, this most recent time, she just tested my TSH. I thought I was going to be perfectly fine and good, so ...

Elle Russ: You should know better.

Tony Federico: I know, I know, but full disclosure here, she just tested TSH. It was significantly above kind of that normal range. Now, in addition to splitting my dose, I had also reduced my dose.

Elle Russ: Oh, that's interesting.

Tony Federico: You know what, I'm sorry, I messed that up. My TSH was basically zero.

Elle Russ: I was going to say, because if it were high, that makes sense. Actually, that's normal.

Tony Federico: I had it mixed up in my head for a second there. That's what happened. I reduced my dose, I split my dose, and my TSH was basically zero, so my pituitary apparently was like "Whoa, there's a lot of thyroid here," even though I was taking less than I was prescribed.

Elle Russ: Who told you to reduce your dose? You just intuitively thought I'll reduce it and split it versus just splitting it?

Tony Federico: Yeah, I guess I felt like I was feeling like pretty good. I was not really thinking I needed as much. That's kind of where I'm at right now. I'm

actually about to get retested in the next week or so.

Elle Russ: All right, we're going to talk then when this podcast is over about what should get tested. Here's a big mistake that was made. First of all, you went to an endocrinologist.

Tony Federico: First problem.

Elle Russ: First problem.

Tony Federico: Rookie mistake.

Elle Russ: Rookie mistake, they really are and here's why. Unfortunately, endocrinologists are classically the most uninformed, steeped in ego, and they know nothing other than what they learned 30-40 years ago that are 1973 thyroid protocols, and they only test either TSH or T4. As we know from this discussion, that is insanity, because they're not even testing what matters.

Tony Federico: 100%.

Elle Russ: Here's what your endocrinologist doesn't know. This is why this is hilarious. I'm so glad you brought this up. All right, so, for people on a T3/T4 combo, I don't care how that is, whether it's in a desiccated pill, anything with direct T3 will suppress the TSH, that's normal. When people are optimized on desiccated it is very, very common that the TSH will be like 0.01. Here's why, the TSH, which is like that wake-up call to the thyroid ... Let's say your neighbor is like, "Hey man, I don't have an alarm clock, can you wake me up every day at 6?" You're like, "Yeah, no problem." You wake him up every day at 6, but then one day you hear that there's an alarm going off over there and then you see that he's gotten his own alarm clock, and you're like, "All right, no need to wake him up anymore." The pituitary ...

Tony Federico: It's like okay, it got the message.

Elle Russ: It's shutting up, because ...

Tony Federico: Okay, we're cool.

Elle Russ: That's right. Here's the thing, endocrinologists get freaked out when they see [Inaudible 00:57:45]. Glad you brought this up. Here's why. This keeps people sick ...

Tony Federico: I'm potentially going to be walking in there and getting my dose Armour cut significantly. I see that's where this is heading.

Elle Russ: You'll get hypothyroid, yes. This is why we need to talk after this podcast.

Tony Federico: Good, okay, thank you. Thank you for the intervention.

Elle Russ: We're going to save your life after the podcast. Here's why, 30-40 years ago, before they knew any of this stuff, doctors were taught ... They did some studies where people would have nodules on their thyroids, these lumps ...

Tony Federico: That's what I had.

Elle Russ: What they would do to get rid of them is they would pump the person with a bunch of T4, essentially making them hypothyroid, shut down their TSH, and then the nodules would go away, but then there would be all these problems like hypothyroidism and all these other issues. Cardiac issues and all sorts of stuff that would happen. They don't do that anymore, first of all, to get rid of nodules. That's an old outdated practice, but that's where the fear came, because in those cases, the TSH was suppressed. Now, informed doctors, who know what they're doing, know that anybody who is optimized on natural desiccated thyroid hormone will have a suppressed TSH period, end of story. It's not the goal, but it's what happens with optimization.

Tony Federico: Interesting.

Elle Russ: For anyone to look at the TSH at all, at all, as a way of dosing somebody or managing or diagnosing doesn't know what they're doing and you run from those doctors.

Tony Federico: Well, sorry, doc.

Elle Russ: Really.

Tony Federico: Looks like I'm going to be going in a different direction. Maybe you can make some recommendations for me after the podcast, because when we sat down and had the consultation, she's like "How are you feeling?" I'm like "I feel good. My weight and everything's fine." She's like, "Man, you're not losing weight?" I'm like, "No, in fact, I probably gained a little weight, not unintentionally, I've been trying to add some muscle mass, so that made sense." She's like, "All right, are you sleeping okay?" I'm like, "Yeah, I sleep fine." "Are you this, this, and this?" All the symptoms of hyperthyroidism, which is what she was assuming based on looking at the TSH number and I didn't have any of those symptoms. She's like "I don't understand this, so let's like wait a month and then ..."

Elle Russ: Exactly, she doesn't understand this. Exactly. Endocrinologists are the worst. I actually talk about this in the interview with the doctor in my book. I literally ask the doctor why don't endocrinologists know this stuff? Why are they afraid of a suppressed TSH? We go through and I have a doctor detailing exactly why doctors are afraid of this stuff and why they're stupid and uninformed. All of those details will be in my book, coming from a doctor if you don't believe it from me, read it from a doctor. That's why. Here's the thing, T4, because it's a pro-hormone and it's gradually converting, when someone's on T4 only, they should not have a suppressed TSH. There should be some activity there.

Tony Federico: Right, right.

Elle Russ: Their levels are different. When anyone is taking anything with direct T3 it suppresses that signal pretty quickly.

Tony Federico: This is really a byproduct of that Synthroid pushing, pharma business model.

Elle Russ: It's like comparing apples to oranges. Comparing Synthroid treatment and analysis to desiccated treatment analysis. They're both going to be different. Okay, another kind of false endocrine thing here is just the idea of taking any thyroid hormone once a day ... Our thyroids don't pump out everything we need ...

Tony Federico: Doesn't just like squirt and then that's it?

Elle Russ: Then you're done, right? Just a lot of problems with T4 and it works well for people too. Some people have been doing well on it for years and it's fine, but it's failed more people than I've ever known who have succeeded at it. You've experienced a little bit of it yourself. Anyone who is on a T3/T4 combo who's doctor is afraid of a suppressed TSH, you run, because they don't know what they're doing. For example, my TSH ...

Tony Federico: Glad we had this talk.

Elle Russ: My TSH has been zero for like 10-12 years.

Tony Federico: Wow.

Elle Russ: So has every success story in my book. Anyone who's optimized on anything containing T3, usually ... Now on the way to optimization, you might have a TSH still there, but eventually ... Again, it's not the goal, you're not trying to suppress the person's TSH, it's what naturally happens when they're optimized, because, think about it, you have steady levels of thyroid hormone in the blood and the brain goes, "I'm good, don't even need to say anything." That's TSH.

Tony Federico: Makes sense.

Elle Russ: Makes total sense. Anyone can read about this online. In fact, one of the best websites for all of this stuff is called [stopthethyroidmadness.com](http://stopthethyroidmadness.com). If anyone doesn't know about that, go there. I couldn't even create a better website if I tried.

Tony Federico: We'll link to that as well, for sure.

Elle Russ: Yeah, that book is also really, really, really amazing and everyone who's got a thyroid issue should just have it on hand and have it around. You'll want to share it with people who might have problems coming up. Again, that's why the title of my book is "Stop Feeling Fat, Foggy, and Fatigued at the Hands of Uninformed Doctors." Listen, right now in this podcast, the audience is listening. You almost just went in there and got more hypothyroid.

Tony Federico: Totally.

Elle Russ: Had you not told me that and I just had this discussion with you, you'd be heading down the wrong path. That's what my whole goal is, trying to steer people in the right direction, because there are doctors who get this stuff. Here's the thing, functional medical doctors, MD's with functional medical experience, anti-aging experience, people who've gone above and beyond their training who spend time with their patients, these are the people that usually know about these nuances.

Now, the fact that your doctor just tested your TSH, right there is a "just run." Even if they tested your TSH and T4, you run. If they're scared of a suppressed TSH when you are on something containing T3, you run. You know what I mean? Because they don't know what they're doing. Essentially, this is how it works and, again, everyone is individual, because everyone is on different levels of grains. I know people on four grains. I know people on one grain a day of thyroid hormone. It's all what works for the person, but essentially ...

Tony Federico: I'm on three and I had an additional maybe fraction. It was three an additional quarter or something like that and that's what I stopped a couple months ago.

Elle Russ: Now you're on three?

Tony Federico: Yeah.

Elle Russ: You take two in the morning and one in the afternoon or ...

Tony Federico: I split the three grains. It's one 1.5 morning, 1.5 afternoon.

Elle Russ: Okay. Here's another reason multi-dosing with something that has T3 in it. Because T3 is so fast acting, it's better to (A) spread it out a little bit, afternoon slump maybe then, so that there's, it's more [Inaudible 01:04:18], but also it's ... Where's my thought on this, trying to reach for it. Sometimes taking too much of a T3 in one dose can be too taxing on the adrenals.

Tony Federico: Right. I think I was starting to get a little jacked up and started to want caffeine and stuff like that a little bit more.

Elle Russ: Right, so you kind of even out now. You could do half and half or you could do two to one. Sometimes you can do a two to one ratio. You could either do two in the morning and then one grain in the afternoon or two and a half in the morning and half grain in the afternoon at 4 o'clock. Some people split it evenly like you do. It just depends. You can mess around with this. Some people feel like they might need a little bit of a stronger, the heavier dose, like the two to one would be morning, waking up, cortisol, start your day, so that's when you would maybe need some of that energy. Then have a little bit later. That's the reason to multi-dose. You're getting some direct T3. It's the same things with Cytomel, you have to spread it out. You don't just give someone like 100 micrograms of T3 in the morning and like, "See you later," because it's going to disappear in four hours, it's probably going to make them hyper, they're going to have heart palps, it's just too much.

Tony Federico: Yep.

Elle Russ: You kind of spread it out and that's how that works.

Tony Federico: Wow.

Elle Russ: Having the suppressed TSH being 0.01, now that would be a concern if you were on T4, just because it's like a different way, that's okay, then someone go "Oh my God, you could be hyperthyroid" or something might be wrong. The other thing too is I had ... I'm a fast talker. I've

always been [Inaudible 01:05:54] Chicago person. I had a doctor once tell me that I was overstimulated because of the way that I spoke.

Tony Federico: Interesting.

Elle Russ: I looked at them and I said, "You know what, you clearly don't know me." Over stimulation is not from personality, you can test it. You can test pulse, heart rate, you know what I mean? Temperature. There are ways to see if you are actually hyperthyroid. That's great doctoring, great guess work.

Tony Federico: Right.

Elle Russ: Where'd you get your MD? You know what I mean? Everyone whose known me forever would be like, "What? You've always been ..." You know what I mean? This is my personality.

Tony Federico: About as valid as looking at someone who's overweight and saying their lazy.

Elle Russ: That's right. That's right, back to that. A suppressed TSH is not a problem for someone on T3. Again, it's not the goal, it's what happens.

Tony Federico: I'm so glad we had this call.

Elle Russ: Me too.

Tony Federico: Glad we were able to follow up, because you may have just saved my butt. Quite possibly one of the most personally beneficial podcasts I've ever done and hopefully for some of our audience out there who may be suffering from thyroid issues getting queued into your book and hearing this podcast hopefully will help them out as well. You mentioned before we started recording today a couple ways that people can find you. What would you recommend for people who want to hear more about what you do.

Elle Russ: Go to my website, [elleruss.com](http://elleruss.com), which is E-L-L-E R-U-S-S dot com. You can either contact me there. You can see also some of the podcasts I've done for Primal Blueprint on there, anything about me. You can find out about my book. My book is available for pre-order on Amazon right now, the Paleo Thyroid Solution. It does come out September 8, but you can pre-order it now. It's really great. It's one of those things where I wish I had it when I was going through all of this, because I'm touching on all aspects. I'm also one of the only authors that I know, actually maybe there's one other author, that has had all of these problems.

Tony Federico: Speaking from personal experience.

Elle Russ: Yeah. I didn't just have standard hypothyroidism. I did and then I had this extra problem. I had adrenal fatigue. I've had every symptom and every problem related to this subject, so I really empathize, but also it's like I had to figure it out by myself. I'd like to save everybody years of struggle and BS and nightmare doctors and just go right to the source. That is also why I have a great doctor on the book to confirm everything that I'm saying and to back it up and to also give his experience. Really what it comes down to is that doctors just stop learning at some point.

You know? That's the problem.

Tony Federico: Yeah, kind of take what they got in med school and that could have been a dubious quality in some situations and then just kind of stop there.

Elle Russ: Right, exactly.

Tony Federico: Elle, thank you so much for the call today, for the complimentary consultation, really appreciate that. Yeah, I recommend that everybody out there listening to this check out your site, [elleruss.com](http://elleruss.com), and then check out your book, "The Paleo Thyroid Solution" as well. Thanks again.

Elle Russ: Thanks so much.

Tony Federico: That was Elle Russ, author of "The Paleo Thyroid Solution." You can find out more about Elle on her website, [elleruss.com](http://elleruss.com). You can read an excerpt from her book, "The Paleo Thyroid Solution," by going to [primalblueprintpublishing.com](http://primalblueprintpublishing.com). We will also be including links to all the websites and resources mentioned on today's show in the show notes on [paleomagonline](http://paleomagonline). Remember that you need to log in with your Paleo Magazine account information to access our podcast page. Next week's show will be a Paleo radio byte with Ben Phelps. Ben lost over 100 pounds by following the Paleo lifestyle and is now doing things he never could do before. Here's a preview.

Ben Phelps: I started training in martial arts, because it was just something that I always wanted to do, always super interested in it. Actually, it was one of the happiest moments when I could sign up, because I was always like, "I'm never going to go in there. I'm super out of shape." I'm in the best shape of my life now and I still struggle to keep up a lot of times in class. It gets pretty intense. I'm just happy to be at a point where I can do something that I enjoy and not be restricted by weight at all.

Tony Federico: To find out more about Ben's primal transformation, you'll have to tune in to next week's show. To make sure you don't miss it, be sure to subscribe to Paleo Magazine Radio on iTunes or favorite us on Stitcher. Once again, I'd like to thank the sponsor of today's show, Ancient Nutrition, smoothies, nut butter, Chilean coffee will never be the same now that I know you can mix bone broth protein into them. If you have a curious, but delicious way that you like to enjoy your bone broth protein, be sure to share with me and it might get posted on our social media pages. Just email me at [tony@paleomagonline.doc](mailto:tony@paleomagonline.doc). Paleo Magazine Radio is brought to you by the Paleo Media Group. Our show music features the song "Light it Up" by Morgan Heritage and Jo Mersa Marley. Paleo Radio Magazine is produced by me and on behalf of everyone at Paleo Magazine, thank you for listening.