

Presenter: Dr. Sara Gottfried

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**Sean:** Welcome back to The Second Opinion Series. I'm so pumped up to be hanging out with one of my favorite people, Dr. Sara Gottfried, author of the bestseller *The Hormone Cure*, and the author of the upcoming book, which I can't wait for, *The Body Cure*.

Dr. Sara, welcome!

Dr. Sara: Thank you, Sean! I'm so happy to be with you!

**Sean:** I'm very happy to have you here. You have no idea. But we're going to be talking about how to lose weight when the thyroid is off.

**Dr. Sara:** That's right. I mean, this is a problem I see in so many men and women, women more than men. This affects about twentyfold more women than men.

Sean: So why do people have a hard time losing weight when the thyroid's off?

Dr. Sara: You know, it's interesting, Sean. The thyroid is this lovely gland in your neck. Everybody knows that. It's shaped like a butterfly. But every cell in your body has a little receptor for thyroid hormone. And so that means if you're thyroid's not working for you, if it's not part of the team, then your cells are going to suffer. And thyroid is the major driver of metabolism, the rate at which you burn calories. So if your thyroid is ill and if it's not where you want it to be...And we're not talking just about T4 here. We're going to talk about all the players. If that's not happening, you're going to slow down your metabolism. And it happens in a lot of different ways. Maybe you find that your hair falls out. Maybe you gain ten pounds. There's many ways it shows up.

**Sean:** How do you know, though, that the thyroid is the actual problem? Because there's so many things that can go wrong. How do you pinpoint the thyroid itself?



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Dr. Sara: Yeah, great question. So there's a few ways that I answer that. Can I answer from my book, actually?

Sean: Absolutely! Go ahead!

Dr. Sara: I've got this questionnaire. A lot of people don't realize that this questionnaire that I put in my book *The Hormone Cure* is the one that I use with my patients and I use with working with people online. So I'm going to rock through a few of these symptoms that are characteristic for the thyroid versus some of the other hormone issues. And we'll talk about some of those other hormones, too.

So a common one is hair loss. I mentioned that already. When your thyroid is slow, your body has to make a priority decision. It has to triage. And it basically is saying, "Okay, we're not going to focus on burning fat, and we're not going to focus on growing hair." Now, a common place for that...And I'm looking at your eyebrows right now. Your eyebrows are perfect.

Sean: Oh, thank you very much! [Laughs]

Dr. Sara: So if you take your nose and you kind of draw a line past your eye, that's where your thyroid is supposed to keep your eyebrows, all the way to the corner there. And I've got bangs. But you can see that mine are a little sparse out here towards the end. And so the outer third of the eyebrows can get sparse. You can lose hair elsewhere, too.

So fifty percent of women by age fifty actually have hair loss, thirty percent of women at age thirty. And sometimes the thyroid is to blame. You can also lose eyelashes. So if you're not rocking those lashes the way that they used to be, that can be a sign. Dry skin. Dry, straw-like hair that tangles easily. So I have thyroid issues. I've revealed that already. And my hair is a little dryer than it was when I was, say, five years old. And a lot of women find this. It makes it tangle easily.

Sean: Hmm, they may think it's a shampoo issue or something like that.



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Dr. Sara: Yeah, and then they try twenty different shampoos, and they still have the same problem. So it may not be the shampoo. Get your thyroid checked.

**Sean:** The shampoo is not the root cause.

Dr. Sara: It's not the root cause. We've got to find the root cause. I feel like you read my book. It's so exciting.

Sean: Because I have read your book! [Laughs]

Dr. Sara: Thank you, Sean Croxton! Can I do a fist bump? Thank you!

Okay, thin, brittle fingernails. Again, this is not having the wrong nail polish. It could be your thyroid. Then the additional few pounds. So that's really what we're talking about today. Another five pounds, ten pounds, twenty pounds as you get older. Because a lot of women have this thing, thyropause. You've heard of andropause. You've heard of menopause. You've probably heard of sexopause, right? We talked about that last year.

Sean: We did.

Dr. Sara: And what happens for a lot of women is thyropause. And they have three main symptoms. They gain weight. They feel tired. And they have mood issues, like depression.

Sean: Do they feel cold, as well?

**Dr. Sara:** Yeah, so cold hands, cold feet. Constipation. There's certain symptoms that really fit with the thyroid more so than other endocrine glands, like your adrenals where you make cortisol and DHEA.



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A few others, decreased sweating. Also, headaches, recurrent headaches. Muscle or joint aches, poor muscle tone, tingling in your hands and feet. The cold hands and feet is a really important one. Some partners will come in with patients and say to me, "My wife has icebergs for feet. Can you do something about it?" So that's a really common one.

Low sex drive. That's the thing that a lot of people don't talk about. Slow speech, and also sometimes people talk about brain fog. Like they just can't get it going. They need a cup or two of coffee to get their brain going.

Now another important point...And I haven't talked about this anywhere else. So this is like a super exclusive, for sure.

Sean: Exclusive!

**Dr. Sara:** For Sean Croxton, baby! So one other thing that's important is that you want to know when your thyroid started to get out of whack. And you can do that by looking at symptoms that show up in childhood versus later. And the idea, especially if you have thyroid testing that goes back to maybe when you were twenty or twenty-five. You want to make sure that you're not changing your lab levels so that they're different than what you were when you were really healthy and feeling good with your thyroid.

So here's some of the ways that you know it happened in childhood versus adulthood. I gave you the ones for adulthood. So people who are shorter often had a thyroid issue. Growth hormone plays a role there, too. But this can also be a sign that your thyroid was out of whack when you were a kid.

With your body, you could have a thick trunk. So like your torso is thicker compared to other people. Larger chest and abdomens, smaller limbs, being overweight, obese. Smaller hands, and also hyperlaxity where you can really bend your fingers back pretty far. So these are all signs in kids. Scoliosis, flat feet, thick skin and bones, and also not having fully formed sexual characteristics. Like



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you just don't have the pubic hair that someone else has. I'm a gynecologist. So you knew we were going to talk about pubic hair at some point today. [Laughs]

Sean: [Laughs]

Dr. Sara: Also, heavy birth weight, delayed growth, delayed puberty, recurrent infections as a kid, and sometimes learning disabilities. So this is from Thierry Hertoghe's book, which I think is such a good one. He's a fourth generation endocrinologist.

Sean: Yeah, I've read one of his books.

Dr. Sara: It's kind of dense. Let me just put it that way. But it's a good one.

Sean: So you can tell if someone has thyroid issues by looking at them.

**Dr. Sara:** I can tell. So, you know, I've been doing this work for twenty years. And I can just see someone and have a sense, like an intuitive hit, of what their hormonal issues are. And I can predict with about ninety-five to ninety-eight percent accuracy what their labs are going to look like.

Sean: That makes me feel all uncomfortable right now. [Laughs]

Dr. Sara: You're like a perfect hormonal specimen!

**Sean:** You know who's really good at that, is Doctor Tom O'Bryan. He can look at somebody and know exactly what's going on with them. It's a trip.

Dr. Sara: Well, it's a sign of having gray hairs that you've been doing this for a while. And you kind of know the lay of the land. Right?

Sean: Uh-huh. He's one smart dude.



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Dr. Sara: He is a smart dude.

**Sean:** Let's talk about the reasons why somebody would have a thyroid that's turning down or shutting off.

Dr. Sara: Well, the number one reason, especially here in the U.S. is autoimmune thyroiditis. And you've talked about this on your show. You've done a great job of talking about autoimmunity. I think the person who described it the most beautifully was Dr. Oz back in the day when he was on the Oprah show. So Oprah, we all know that she's had a battle with her weight. I don't know if you've noticed that. But, yeah.

When her weight goes up and down, one of the things that she came out with is that her thyroid is a problem, and she has autoimmune thyroiditis, also known as Hashimoto's thyroiditis. And Dr. Oz said, "It's like you have a frat party in your thyroid." And what that means is you have this attack on your own tissue.

So autoimmunity is where your immune system gets overactivated and it's attacking some part of your body, in this case, the thyroid. That's the cause of ninety to ninety-five percent of low thyroid function. There's a period of time with the frat party where you have too much thyroid hormone because you're destroying thyroid tissue. And then there's a period of time where you're burned out, and you're just not making thyroid hormone. It's like the after party. Or it's after the frat party, so that everyone's sort of asleep and not working so well. Not much is happening.

So that's the most common cause. Other causes are Graves' disease, which is another immune condition. You can make antibodies to the thyroid separate from Hashimoto's. Those are some of the most common problems that we see.

And then there's the secondary causes, like when you don't have the nutrition that you need or when you're a total stress case, or maybe you went on Atkins or you've been on a super low-carb



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Paleo food plan. And you've raised your reverse T3. I'm getting a little ahead of myself here. But those are some of the reasons why your thyroid can slow down, as well.

**Sean:** Let's go back to Hashimoto's. How would someone know if they have an autoimmune thyroid issue going on?

Dr. Sara: Well, there's a few ways to know. What I usually recommend people start with, what I talk about in chapter eleven of *The Hormone Cure* is that you want to do a panel. And it's not the garden variety panel that your doctor wants to do. I recommend that my listeners do a TSH, thyroid stimulating hormone. And also look at T4 and T3. So your thyroid makes T1, T2, T3, T4. You need all of these. And you want T4, which is like a storage hormone to get converted into T3. So you want to look at those.

I like to look at reverse T3, especially if someone's not getting better or I'm getting a second opinion, for instance, from someone who's been working on their thyroid for a while. And then if you're looking at autoimmunity, you want to check for antibodies. So the ones that we usually start with are, number one, TPO, thyroid peroxidase antibody. And then anti-thyroid globulin antibody. Those are the ones that, again, ninety to ninety-five percent of the time, they're going to be elevated.

Now, the problem there, though, is as with most things in medicine, labs don't always tell the full story. And occasionally you can have a frat party. You can have autoimmune thyroiditis, and the antibodies are negative. You could be at the burned out phase. Or you could be kind of early in the disease. In that case, having an exam and also an ultrasound can be helpful.

Sean: Yeah, Chris Kresser talked about that.

Dr. Sara: Yes.



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**Sean:** He also talked about T4 and T3, and the conversion of T4 to T3. But he didn't mention reverse T3. Talk about that.

**Dr. Sara:** Yeah. Well, this is interesting. So I'm glad we're going to build upon what he talked about. So T4. You know, I see this chemical reaction right in my head. So I'm going to share it with you.

Sean: Please.

Dr. Sara: So T4 can go two different ways. It can either go to T3 and make the active thyroid hormone that allows you to rock your mission and keep the hair on your head and not gain the weight. Or it can go this other pathway, which is reverse T3. And normally somewhere around—I don't remember the numbers exactly—forty to sixty percent gets converted to free T3. And the remainder goes to reverse T3. Don't quote me on that. It's somewhere around there.

So you have this ratio that your body normally has at steady state. If you have a problem, if you have a crisis in your body or you perceive that you have a crisis, then one of the ways your body kind of slows down metabolism and regulates you is to convert you to make more of the reverse T3. So if you measure reverse T3, it'll be high. It'll be way above where you want it to be.

Now, the problem with reverse T3, the big deal with it is that it blocks your thyroid receptor. It doesn't allow the receptor to get in there and have molecular sex. So you want the hormone and the receptor to have really good molecular sex.

Sean: Put the key in the key hole, right?

Dr. Sara: Yeah, that's probably a better analogy. So, yes, you want the key to fit in the lock. And if you've got some gum stuck in there because your reverse T3 is too high, you're not going to be able to boost that metabolism the way that you most want as you get older.



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**Sean:** Gotcha. You've got your Gottfried Protocol, which you write about in your book. And it's a three-step system to fix your hormones. Tell us about those three steps.

Dr. Sara: Yeah. Well, this is what I used to cure my own hormonal issues when I was in my midthirties, about ten years ago. And I had an issue with a slow thyroid and also with high cortisol, which something that I see in about ninety-one percent of the people I work with online.

Sean: And high cortisol is related to stress, correct?

**Dr. Sara:** So cortisol is a stress hormone. It's really kind of a bully. It's this hormone that just slows down all the other hormones and kind of does its business. And if you're not managing your stress, if you're not managing your cortisol, it's probably managing you. Not you, because you seem to manage your cortisol really well.

Sean: I'm chill. I keep my stress, as low as possible.

Dr. Sara: When I'm with you, I feel relaxed. My cortisol benefits from your cortisol!

Sean: Awesome! Glad to help!

Dr. Sara: Oh, my gosh! So the issue here...What were we talking about? [Laughs]

**Sean:** The three steps.

**Dr. Sara:** Oh, the three steps. Yeah, so the idea here is that when your thyroid is out of whack, you want to use this three-step process that I developed, which I call The Gottfried Protocol. The first step is that you make targeted lifestyle changes. And these are the ones that are really proven to move the needle. The second step is to take proven botanical therapies. And if those don't work, then you move on to stage three, which is that you take bioidentical hormones, but at the lowest doses and for the shortest duration to solve your symptoms.



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So the three steps...And I'm happy to go through some of them with the thyroid. What do you think?

Sean: Yeah, I love the three-step protocol because a lot of people tend to skip all the way to the end. And they don't address the lifestyle factors at all. When I was doing health coaching, people weren't sleeping at all. They had high stress. They weren't eating the right foods. So let's talk about food. I think that's like step one of the protocol. Talk about that.

Dr. Sara: Sure. Well, I'm glad you raised that because what I see all the time...And what I was trained to do in mainstream medicine was to say, "Okay, your TSH is a problem. Your thyroid stimulating hormone is five," for instance, which is way too high. And that means your thyroid's underperforming. So let's take you and give you some Synthroid, some T4, some levothyroxine. So that's an immediate jump to step three, which I don't think serves anyone well, just as you described.

So food. Let's talk about food. I want to talk about the food that helps and the food that causes problems.

Sean: Go for it.

Dr. Sara: So the food that helps, number one, you want to reduce inflammation. So this is one of those places where I think an anti-inflammatory Paleo food plan can be really a good idea. You just have to make sure that you don't go too low with the carbohydrates when you have thyroid dysfunction. So I think that eating the kind of Paleolithic foods that our ancestors ate, things like the crustaceans, vegetables, vegetables, vegetables—but not the goitrogenic ones, as we'll get to in a moment—and sweet potatoes and the wild game. Those things are really anti-inflammatory. They especially can help you if you have autoimmune thyroiditis.



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You want to basically take care of the gut. You want to eat the foods that nourish your gut. And so I think of that as being mostly clean proteins, slow carbohydrates, and vegetables, vegetables, vegetables.

Sean: And a "slow carbohydrate" means what?

Dr. Sara: So these are the carbohydrates that don't bump your blood sugar super high because we know that if your body becomes insulin resistant and you become numb to the message that insulin is trying to give your body, then that can also further damage your thyroid. So we don't want that. It's really common to see insulin resistance and leptin resistance, another hormone in people who have thyroid issues.

So what we want with the slow carbs is things like sweet potatoes. You probably saw my kitchen. I have like twenty sweet potatoes sitting over there. I just love sweet potatoes!

Sean: Is that your go-to carb?

Dr. Sara: That's my go-to carb. And then the carbs that you get from the non-starchy vegetables, I think, are also really nourishing for you. I start my day with a shake. I think the amount of carbohydrates that we have in the shake that I vetted and developed is really nourishing for women. So you want to have a certain number of carbs. And you've got to figure out what is your reference range? What's too much in the way of carbohydrates? And what's too little? And you want to stay away from those high glycemic index, high glycemic load carbohydrates.

**Sean:** You mentioned the Paleo diet, which I love. I just call it just eating real food. But you also mentioned it being not a good thing if it's too low in carbohydrates. How does somebody know if their diet is too low in carbohydrates?

Dr. Sara: Well, this is interesting. I am curious. And I want to hear from you, also, about how you dial that in for people. And I know you just were talking to Chris Kresser. I adore him. And he's got



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this book *Personal Paleo Code* that he just came out with. And he talks in the back of the book about how to dial in the carbohydrates first, and how that's really your first goal when you're figuring out the optimal food plan. And one of the caveats he makes is that if you have thyroid issues, you want to be careful with the very low-carb version of this.

So how do you figure it out? Well, I would say first of all, if you go on Paleo and you're in ketogenesis—so you're spilling ketones in your urine, your breath changes, and maybe you're getting, I don't know, ten to fifteen grams of carbs a day—it's probably not enough. And it could cause your thyroid to dysfunction so that you've got more symptoms, maybe more hair loss. Maybe you're actually gaining weight, which doesn't make any sense if you're on Paleo.

And also it can make your labs more abnormal. So you can track your labs and kind of see what happens based on the amount of carbs that you put in. But I find most women don't do so well on a very low-carb food plan. Our neurotransmitters, our hormones, are more complicated. And we tend to have more stress than men. And the very low-carb often just doesn't serve us very well.

**Sean:** We were off camera talking about this one. And you said that you maybe stumbled upon some research or have an opinion about this. Tell our audience that.

Dr. Sara: Yeah, this is really interesting. So I love talking about Paleo and about this whole issue of carbohydrates and what's right for women. And I found in my practice, especially as Paleo got more popular, I found in my practice that a lot of women would come see me. And they'd say, "Hey, I started this Paleo food plan. And I'm not losing weight." Or, "I'm gaining weight." And maybe they even started going to a Cross Fit box. And they're gaining weight. They're not having the kind of loss of body fat that they were hoping for. And what I found is that women are just more complicated.

Sean: In more ways than one! [Laughs]



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Dr. Sara: [Laughs] So we have more estrogen. We have less testosterone. That whole thing of the testosterone advantage and how that helps men lose weight faster than women. That's working against us. Our liver is more complicated. We're more congested with this pathway called glucuronidation in the liver.

Sean: That's a mouthful!

Dr. Sara: And endocrine disruptors affect us disproportionately, probably because of all the cosmetics that we put on and other things that we get exposed to. So what I found...And I was talking to Terry Wahls about this, another physician. She said that she's seen in her research that when people have a body mass index of twenty-three—so remember that's the height and weight ratio—when you have a body mass index of twenty-three or less, Paleo doesn't seem to deliver the weight loss that we expect.

Sean: For women?

Dr. Sara: For women.

Sean: Gotcha.

Dr. Sara: And a lot of the research on Paleo, unfortunately, is in the guys.

**Sean:** That's interesting. We're just focusing on the guys and we're completely missing half the population?

Dr. Sara: You know, it's true that it's a lot simpler to study the guys. Right? You're simpler in some ways.

Sean: We're not as complicated.



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Dr. Sara: Not always! But you're simpler in some ways. When it comes to the guys, we have hundreds of years of medical research where we assume that what happens in guys also happens in women. And the more that we actually look at these gender differences, it turns out it's not the case. Like we don't respond to stress the same way. We tend and befriend. We don't fight or flight. We don't have the same sort of neurotransmitters balance that men have. It's a little more complicated for us.

**Sean:** Sticking with food, what are some foods that our audience should avoid if they have a thyroid issue?

**Dr. Sara:** Yeah. Oh, my gosh. Okay, so let's go through the list. So number one is the goitrogenic foods. Now, this is another weird name, right? Goitrogen.

Sean: Goiter.

**Dr. Sara:** Goiter. So it's called that because it's thought to slow down the thyroid and even contribute to growing the size of the thyroid, not a pretty thing. So goitrogenic foods, these are things like cruciferous vegetables. There's certain foods, if you just do a search online for goitrogens, you'll find a whole long list. But there's certain foods that you think are healthy, like kale and Brussels sprouts, that if you eat them raw, they can slow down your thyroid function.

It's funny. I had a patient who came to see me last week who is what we're talking about. She is a forty-two-year-old woman. She came to see me because her doctor told her her thyroid was just fine. And I didn't actually agree with that. She was trying to lose weight. She'd gained about twelve pounds in the past year. And nothing seemed to be working.

She tried a juice fast. So she was having her green juices all day long. And nothing could be worse for someone with a thyroid problem because she's drinking these goitrogenic juices. This particular juice fast had no fiber in it. So we need our fiber for our estrogen, which also helps the thyroid. So that's one that you want to stay away from.



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Another is gluten. Now, the data on gluten is not as good as I would like for it to be. But it appears that because it's so commonly a reason why you have leaky gut or you poke holes in your gut, that it seems to contribute to autoimmune thyroiditis. So I find that a lot of people, if you just take the gluten out, it can make a big difference in their thyroid.

The third one is soy.

Sean: Yeah, that's a big one.

**Dr. Sara:** So soy is interesting. Oh, my gosh. The data that I've seen is that a single serving of soy can slow down your thyroid by about seven percent.

Sean: Really?

Dr. Sara: So, Sean, we want to be careful about those three things in particular: the goitrogens, the soy, and the gluten.

**Sean:** Well, getting back to the goitrogens, the cruciferous vegetables, what if they're prepared properly? What if they're not raw?

Dr. Sara: Yeah, good. Okay, so this is one of those things where there's a bit of urban legend around goitrogens. And I took a look at the literature when I wrote my book *The Hormone Cure*, and wasn't so impressed. I was pretty underwhelmed at the data on goitrogens. It turns out that if you lightly cook goitrogens, they lose that goitrogenic activity. So that's another thing that you can do. The main point is you don't want to eat them raw. You want to lightly cook them.

**Sean:** Beyond food, are there any other lifestyle modifications that you recommend to someone who has this problem?



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**Dr. Sara:** Definitely. So another issue when it comes to step one of the Gottfried Protocol with your thyroid is that you want to be managing the cortisol. So if cortisol is way too high or if it's too low, that also is going to slow down your thyroid function. You're just not going to convert from T4 to free T3 as well. So you want to make sure that you're really managing your cortisol.

Now, how do you do that with your lifestyle? Well, you can hit the pause button. Figure out what's really going to help you hit the pause button. One thing I'm rockin' right now is on my iPhone, I love Inner Balance. It's a way to manage your heart rate variability. I do it for about ten minutes a day with this app that you can get for free—Inner Balance—that totally works for me and my cortisol levels.

Another thing is you don't want to spend hours at the gym doing cardio. And I imagine you have something to say about this, too! Burst training is much better for your thyroid, right?

Sean: And it's quicker!

Dr. Sara: And it's quicker!

Sean: You can get in and out a lot faster. More bang for your buck.

Dr. Sara: Yeah! Don't spend your life at the gym!. Exactly!

**Sean:** Yeah. I had so many personal training clients who would stay on the treadmill for an hour. It's so terrible for you.

Dr. Sara: Well, what happens...I mean, one of the many things that happens besides increase your risk of injury is that when you're on the treadmill for an hour or an hour-and-a-half or whatever trying to burn your

calories, what happens is that you're raising your cortisol. And that causes problems with your thyroid.



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Sean: Step two of The Gottfried Protocol.

Dr. Sara: Step two is to take proven botanical therapies. Now, in chapter four of my book, I talk about all the ones that help you with cortisol, things like rhodiola and ashwagandha. When it comes to the thyroid, unfortunately, the herbals just aren't well proven. I looked at all of the research we have on things like—you're going to like this one—kanchanar guggulu. It's an Ayurvedic herb that's supposed to help your thyroid. I even had it prescribed to me by an Ayurvedic physician.

Sean: Say that one more time.

Dr. Sara: Kanchanar guggulu.

Sean: Wow.

Dr. Sara: And it turns out, there's no data in humans that it actually helps. So there aren't any herbal therapies that I found are effective directly on the thyroid.

Sean: What's your take...And this isn't an herb. But what's your take iodine and the thyroid?

Dr. Sara: Iodine's interesting. Most of us run around either not getting enough iodine, or actually getting too much. And as with anything in the body, as with any micronutrient, you want to be in that sweet spot where you're not getting too much, you're not getting too little. If you have the frat party, if you have autoimmune thyroiditis, you have to be really careful because your dynamic range is not as broad when it comes to the safe dose of iodine.

But what I recommend when it comes to iodine is to focus first on the food sources, things like sea vegetables, sources that you get from eating. And then I think you'll be safe, as opposed to taking an iodine supplement.



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**Sean:** Let's rewind this a little bit and talk about exercise again. Now, we went over burst training. First of all, maybe give our audience an example of what burst training is so they'll know what to do when they go to the gym next time.

Dr. Sara: Okay, well I think we should do a his and her. Well, I'll give you my burst training. Then you give me yours. How's that?

**Sean:** That sounds good.

Dr. Sara: Okay, so I do burst training a couple ways. I actually do some cardio burst training where I'll get on the elliptical or I'll go running. And I'll warm up for five minutes. And then I'll go as hard as I can, like pedal to the metal for one minute. And then I'll rest for one to two minutes. And then I'll do it again. So I'll do about seven to ten bursts like that and get my workout done usually by twenty-five, thirty minutes. So that's one way to do it. I also do it with weights.

But what do you mean by "burst training?"

Sean: I like the step mill. You know, the revolving steps?

Dr. Sara: Whoo! Yes. You can't cheat on those.

Sean: You can't cheat for nuthin'! You can kind of hold on. But it just looks bad when you're holding on to the handles like that. But that's my favorite thing to do. I've been doing that for years. And I do a minute on, a minute off. So, of course, I get warmed up for about three to four minutes. Then I literally get off the machine, press pause, and there's like a little countdown timer. And by the time it gets to one minute, I go back up. I press the button. It starts up. I do a minute. Hop off.

And it's really cool when you can do it with a partner, when you can find a partner who can hang because you don't even have to stop the machine. You slide off and they jump up. And you just keep going.



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Dr. Sara: Well, that sounds like fun!

Sean: It kind of makes a scene in the gym. But it's kind of cool.

Dr. Sara: Okay, next time you come to Berkeley, we're going to do that together.

Sean: Let's do it! I'll be back!

Dr. Sara: All right, can I do one on weightlifting?

Sean: Absolutely.

Dr. Sara: So we know with women, we know that fifteen, twenty minutes a couple times a week really makes a difference. And so what I like to do with burst training with weight lifting is—this is actually a JJ Virgin thing—where you get on the machine or you get your free weights, and you go all out. Like, push yourself really hard with the weights in terms of the reps that you do. And you do that for a minute. And then you take about a minute break. And you just keep doing that with different forms of whatever resistance training you're using. I'll do arms one day and legs the next day, etcetera.

Sean: What about things like yoga, tai chi, meditation? Tell us all that stuff!

**Dr. Sara:** Oh, that! Okay. So, yes, I am a yoga teacher. So I'm glad you asked me about that. So it's interesting. The tradition in yoga is that one of the ways to take care of your thyroid is actually to do shoulder stands. So shoulder stands, very interesting. So the idea there is that when you do a shoulder stand, and you...I can't demonstrate it because I've got a dress on.

But when you are squeezing out, you do the chin lock when you're upside down. You can just visualize with me, okay. When you squeeze out all that stale, old blood in your thyroid and then you release it, all this fresh life energy, this prAna and fresh blood comes in with all the new nutrients



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and the oxygen. That's a good thing! So shoulder stand, some people need to modify it with a chair. You can just look online to see how to do this.

You've got to be a little careful with shoulder stand because it's a lot of weight on the delicate little cervical vertebrae of your neck. So you want to be careful about that piece, and have a teacher watch you do it so you've got good form.

Sean: Do you recommend meditation or anything for stress reduction?

Dr. Sara: Oh, definitely! Definitely. So I don't think about it as stress reduction just because I don't think any of us are very good at reducing stress. I know I don't want to reduce my stress. I just want to dance with it better. So I use the Inner Balance app, which helps you train in heart rate variability. It helps you kind of balance the nervous system, the fight-or-flight on position of the nervous system with the parasympathetic, the rest and digest half of your nervous system to help kind of marry them a little better with heart rate training. I do that.

And I also meditate each morning. I do, like, five to ten minutes. Some people, you suggest meditation to them, and they look at you cross eyed like you're nuts. And for those people, I'll tell them, "Okay, I want you to do a detox bath." And you do a hot bath. Stick some Epsom salt—like a cup—in your bath water, as hot as you can stand. And stay in there for ten to fifteen minutes. Most people can do that. And that really helps your cortisol levels, as well.

Sean: So we've covered step one and step two. Give us the third one.

**Dr. Sara:** So step three is bioidentical hormones, but at the lowest doses and for the shortest duration. And the idea there is you don't want to get into a problem with hormone resistance of just cranking up the dose because you're resistant to it.

And it's interesting, if you get to that point—and a lot of women, especially, get to this point where



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they need some thyroid medication—what I generally recommend is that you replace all the thyroid hormones. Don't just go for one. Don't go for T4 because that often doesn't work so well.

Sean: Synthroid is T4, right?

**Dr. Sara:** So Synthroid, levothyroxine, those are forms of synthetic T4. So what I like is the natural desiccated thyroid hormone. There's a couple different brands out there. One is Armour Thyroid. Another is Nature-Throid. Nature-Throid has a new brand that I like a lot called Nature-Throid P or Westhroid P, which is a pure version of thyroid hormone, T1, T2, T3, T4, together with some MCTs, some medium-chain triglycerides. We know that MCT is really good for the thyroid.

Sean: MCT oil?

Dr. Sara: Yes.

**Sean:** What do you do? What do you put it in? What do you put that in? Do you just drink it straight?

Dr. Sara: So I use MCT oil when I make my smoothie in the morning.

Sean: Okay.

**Dr. Sara:** And then a little later, I'm going to make some soup with you. And I'm going to put some in there, too.

Sean: I'm looking forward to that!

Dr. Sara: Yeah!

**Sean:** You've covered a lot of stuff in the time we've had together. Is there anything else that you want to add?



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**Dr. Sara:** Well, one question I get asked a lot, Sean, is about the optimal ranges for labs when it comes to the thyroid. So I'd love to talk about that. We can finish there.

Sean: Go for it. Absolutely.

Dr. Sara: So it's interesting. I went through this medical training at Harvard Medical School and then UCSF. And I got taught that there is this very broad range that is considered to be normal when it comes to thyroid hormones. And it turns out this is that bell-shaped curve that we all learned about it statistics. It's normal for ninety-five percent of the population.

But I can tell you, I don't want to be like ninety-five percent of the population. I want to be in that optimal range where my thyroid is totally rockin' it. So that range is a little bit different than what you're going to see at your lab reference range. And a lot of the national organizations in endocrinology—the people who are experts at thyroid—agree with this.

So one study I looked at took people who had a completely normal thyroid function. And they looked at TSH, thyroid stimulating hormone. And they found that instead of these old school ranges of 0.5 to 4.5, a much more accurate, optimal range is 0.3 to 1.5. So that's the range that I really recommend for folks.

And if you're having a hard time getting into that range, you're having a hard time maybe getting your free T3 where you want it to be, I even track the ratio of free T3 to reverse T3 if you want to really geek out about this. I like to track that ratio. Then you want to be tracking these almost like you track your 401(k). You want to have a dashboard on your computer and really be looking at these each quarter until you're in the optimal ranges that I talk about in my book *The Hormone Cure*.

**Sean:** So you said 0.3 to 1.5 for TSH? But a doctor will still show you your test scores and be like, "It's a 4.4. You're good!"

Dr. Sara: Exactly.



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Sean: That's crazy!

Dr. Sara: Amazing!

**Sean:** That is crazy.

Dr. Sara: I see it happen probably five times a day in my practice.

Sean: Do you want to give us the optimal ranges for maybe T4, T3, free, all that stuff?

Dr. Sara: Yeah, so the interesting thing when it comes to these other hormones is that they vary a little bit from lab to lab. So what is sometimes easier—and what I talk about in my book—is that you want to kind of divide the normal range you see on your lab reference ranges. So like for free T3, for instance, and free T4, you want to be at the top half of the normal range. And that really shows that your thyroid is functioning.

Reverse T3 is a little bit different because remember we don't want that to get too high. So you want reverse T3 to be in the bottom half of the normal range. So whatever your range is at your lab, top half for free T3 and free T4, bottom half for reverse T3.

Sean: And remind us of the autoimmune antibody test. What are those called?

Dr. Sara: So with your thyroid peroxidase antibodies, again, you want to be within the normal range for your lab. And I forget those numbers, something like less than thirty or twenty-five, something like that. And same thing with your anti-thyroid globulin. You want to be within the normal range, which is that your antibodies are not elevated.

**Sean:** Mmm hmm. Great stuff. Great stuff with the doctor, Dr. Dr. Sara Gottfried. It's been a good time! Thank you so much!



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Dr. Sara: Oh, my pleasure, Sean.

Sean: Head out there and grab her book The Hormone Cure. It's in paperback now.

Dr. Sara: That's right!

**Sean:** So, yeah, go out there and grab that. And look out for *The Body Cure* coming out in January of next year?

Dr. Sara: March 2015.

Sean: March 2015. Thanks so much!

Dr. Sara: My pleasure!