The Iodine Paradox: What Every Thyroid Patient Needs to Know – With Dr. Alan Christianson Transcript

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Introduction and Guest Background

Welcome to the Thyroid Pharmacists Healing Conversations podcast. I'm your host, Dr. Isabella Wentz. And today, I have a very special guest joining me, a longtime collaborator and colleague of mine, Doctor Alan Christensen.

We're going to be talking about the low iodine approach to thyroid health. I'm going to give you a little bit more information about Dr. Alan Christensen.

He is a board-certified naturopathic endocrinologist specializing in thyroid health. A New York Times bestselling author, his works include The Hormone Healing Cookbook and The Thyroid Reset Diet.

Dr Christenson was the founding president behind the Endocrine Association of Natuopathic Physicians and has trained thousands of doctors worldwide in natural thyroid care.

He frequently appears on major national TV shows such as Dr. Oz, The Doctors, and The Today Show and his expertise has been featured in publications like Women's World and Natural Health.

Such an honor to have you here again with me, Dr Christensen. I always love collaborating with you. Welcome to the show. Thank you so much for having me Dr Wentz.

Again, any excuse to hang out and be with and love everything you do and glad to be Likewise, you don't talk about your unicycling in this new bio. I want to know what happened.

Yeah, I'm not sure why they went by the wayside, but that's one of the hobbies has been off-road unicycling, which is a lot of fun and not very common.

Well, that you and your wife moved to Minnesota lately and you've been enjoying living a different lifestyle than you have been living in Arizona for so long.

It was funny. Last week it was about 20 below and now it's about almost almost 40. So the temperature changes a lot pretty fast. But yeah, I'm from up here and I missed being in the woods, you know, just seeing looking out the window and seeing the lake and bald eagles go by and all the trees around.

And yeah. It's very, very restful and restorative. I love following you on social media and you always show the scenery where you live and it's just so gorgeous and peaceful.

And I don't think a lot of people know about your history or how you actually became interested in naturopathic medicine. I know people that follow you, they see you as super vibrant and very athletic.

and, you know, obviously very fit and knowledgeable, but you actually had a lot of health challenges when you were a kid, right? I did. Yeah, I was adopted.

My birth mother was not healthy, not in a very good place in her life, pretty young. A wonderful farm family in northern Minnesota took me in, and I had some degree of cerebral palsy, so very uncoordinated.

yeah really couldn't do a lot of sports or activities and somehow or other between that and just the struggles of life I got really heavy as an adolescent I was very obese and so it was a I really felt, you know, now we talk about fat shaming.

You know back in the 70s, we didn't, it was just normal because it wasn't as common. So there weren't many people who were big. But yeah, I felt social ostracism during the time in life in which the social world becomes so important.

And I was a bookish kid and it kind of drove me into trying to figure out how to get healthier by reading books. and it was a lot to sort out and nothing was easier at the first go.

But over time, I was able to gradually become more active and lose some weight and overcome a lotta issues. And it just left such an impression because I knew that how life-changing it is for me and how much it meant to me.

I had seen doctors and they meant well, but nothing really helped in the ways that I wanted. Then I thought, well what's the deal? As a kid I could find things in books that changed my life like this.

How many people must be really held back or not living the way they want to for reasons that don't have to be. For just simple facts lying around they don' have access to.

And that's what really just lit the fire.

Dr. Christensenu2019s Health Journey

Yeah, it's amazing that you share that because I feel like some people maybe they're listening or they are thinking it in their head. Well, like I don't know that I could ever be helped because.

I was born with this or I have this, or you know, I'm struggling with my weight and other people don' know what it is like to struggle. But you've been there and you have come to the other side and I think it has made you so much more compassionate in helping people with thyroid issues.

You know, and that's the thing, as I was in my medical studies, I knew I wanted to go into medicine and I know that diet and lifestyle were super important, so I chose a career that allowed for that.

And early on I saw that those with thyroid disease, they were doing a lot of the things that seemed like they should make sense in terms of eating well and being active, but it wasn't working for them, it was not enough for Then I saw really conflicting messages they were hearing from the conventional approach and a lot of different alternative approaches.

And I connected with that. I thought there's got to be something where there are some parts of these things have to real and some are working better than others.

Yeah, it got me going on that 30 years ago and it's been just a passion ever since. And it was kind of funny, but I was living in Scottsdale when I started experiencing some thyroid symptoms, and your clinic was like down the road from where I used to live.

I only there for a year, it's like that year. And I'm like, oh my gosh, had I known about you earlier on my healing journey, that would have changed the trajectory of my health so much, I wouldn't have had to like figure out so many stuff on own.

And I really appreciate everything you do to educate people. In addition to having a clinic for so many years, you've written a lot of books on your experience over the years working with thyroid patients.

And, I know just as I have, your philosophies have perhaps evolved a little bit with time. I know when we first met and when you first collaborated, we were talking about, I was really passionate about gut health, and I'm still passionate, about good health.

You were really passion about optimizing thyroid hormones. The way that you were doing that was a lot of times through natural desiccated thyroid. This was like really a big area of focus for you when met was really optimizing

people through using natural desiccated thyroid.

Then I know you had published a book about adrenals, and you were like, okay, this is another approach, then the metabolism reset diet. Throughout the process, I've focused on the adranals and nutrition and all these things.

I feel like our theories, the more we research and the the work with clients or patients, some of our theories really start to evolve and I know you first you were you never like necessarily in like the high iodine camp of hypothyroidism but you really took something you you like have this really really unique approach that's focused on not like low iodine and how that can actually restore thyroid health.

Can you tell us a little bit more about perhaps how you got there and what made you really focus on iodide? Yeah, yeah, great question. I think about, I guess, my journey with iodine in like three stages.

The first one was someone, a doctor with a nutrition background, knowing what it did and the basic stuff and stuff like that, and then knowing it was used in a lot of other ways, effective antiseptic, used for wounds, could also be an expectorant, uses contrast.

So I knew the basics stuff, right? That was stage one. Stage two, this one started, it's fascinating. I practiced in Arizona for so long and a lot of my patients were seasonal.

I was their doctor for half of the year and then another doctor the other half for the commonly. One gentleman, he was mid-70s and someone who was like an aspirational health model for me.

He was really involved and just did everything exactly right and super fit, amazingly healthy guy. And he comes back one year after being away and now he has toxic nodular goiter.

And it was kind of odd. In my head, I knew that in that age and demographic, that wasn't common. But when it did happen, it often after high dose iodine exposure.

I know he'd had some back issues. So I thought he must have had an MRI with contrast. And so I jumped to his back. Well, what happened with the back? No, no, there was no MRI.

Were you exposed to iodine? Is that how this happened? So basically, that's when I was first exposed, to this new model that was hitting natural medicine, pushing for a mega dose of iodide.

So that started stage two. Stage two, I went deep into that, reading it, looking at all the papers that were out, all of the popular stuff, and saw that it wasn't safe.

That's kind of how that second stage started. And the third stage is realizing that for many, there's also an opportunity in reducing it. Yeah, it's very, very fascinating.

And I feel like iodine is a very controversial nutrient in the thyroid world because our thyroid gland needs iodide to produce thyroid hormone. So when you kind of glance at it on paper, you're low in thyroid hormones.

let's give you more iodine and that like, you know, that equation checks out on paper, right?

How Iodine Became a Focus

When we start and we know that people in iodide deficient areas have higher rates of iodines induced hypothyroidism or iodides deficiency induced type of thyroidism.

So I feel like that checks, out right. But then when you kind of start looking deeper and peeling back the layers, You start realizing that okay so yes you can have iodine deficiency which can lead to hypothyroidism but actually iodide is a narrow therapeutic index nutrient so when you have too much of it holy cow this can be problematic too because now in the countries that added iodines to their salt supplies the rates of Hashimoto's are going double

triple and quadruple compared to you know the was added to the salt supply.

Could you talk a little bit more about this mechanism? Looking at it just straight up on paper, it's like, oh yeah, one plus one equals two, but it doesn't necessarily work that way, right?

Yeah, and that's the thing. I guess we're quick to think about things in our diet or nutrients or interventions as good or bad, you know, and I'd really like to encourage people to not do that.

So good and bad. That can apply to storybook characters, not even like grown up stories because they're more complicated than that, but some of the most basic kids stories have good are bad characters.

That's where good and bad should end. So I think about these things more like, I don't know, like musical notes. I mean, they're not good or bad. It's like do they belong here?

How long should they go on for? What should go around them? You know? So they are more, more that. But yeah, iodine is a really tricky one. But some of the things you mentioned about how when it was added in, the rates of Hashimoto's went up, there were some stats on that from the US.

So we started fortifying about 1924. And it's never a federal mandate, but it is voluntary in a lot of areas. The famed Mayo Clinic is from southern Minnesota, and they were near the Great Lakes.

They were in areas where there was higher rates thyroid enlargement due to low iodine in the soil. And coming up on World War I, a lot of possible soldiers weren't acceptable because they had goiters.

So that prompted more thought on this. And the fortification the decades afterwards, the rate of Hashimoto's in women in the classic ages of like 30s, 40s and 50s.

Yeah, it went up 26 fold, not percent, but fold. It skyrocketed. The mechanism, it's a complicated thing. So most nutrients, I think about your blood kind of like soup, you know, and you got stuff in the soup and that's what your organs have to work with.

And that fine. But iodine is different because it works in such small amounts that your body has to control how much comes in. You're not just swimming in soup.

It's brought in selectively. and You pull it in or you block it out. Because of that, when you get a little bit too much, You block out And the paradox is, too much can cause a lot of identical problems is too little because you shut it all down.

It's so fascinating that it works that way and it's not as straightforward. We do know definitely there are benefits to having iodine in our bodies, but too much can be toxic.

I think there's this saying, whether something is a toxin or a remedy depends on its dosage. I know certain individuals are going to be at higher risk to iodine-induced thyroid dysfunction because for every time we say something, there's going be somebody that's like, I take a whole bottle of iodide and look at me, like I feel amazing.

Who are the people that we're concerned with that they're perhaps overexposed to Iodine and that it could be problematic in them? Yeah, great questions.

There's kind of like three thresholds to think about. there's requirements, there is tolerance, and there are toxicology. So how much you require pretty much is body size.

Not a lot of genetic variation. It's more critical based on just body and age. And then also status like pregnancy, non-pregnancy. Then there's toxicology, and that's mostly tied to renal function.

So if someone has a compromise to their kidneys, they can't clear it as well and it can damage their organs more

easily. But then there is tolerance. That's to where when you're above your tolerance, it's not so much damaging organs, but it is really causing excess oxidative damage in the areas that it builds up, mostly within the thyroid.

Genetically, there a big range in tolerance And thyroid disease, you know, it's funny we talk about different causes and like these long lists of causes.

And I think about like causes in contributors is different. So a cause can make something happen all by itself. It needs no other factors. If we think of a caused in that sense, there's really only four causes of thyroid.

There's genetics, age, gender, and then iodine exposure. Yeah, gender and genetics go together, and age is just the same glitch as played out over longer periods of time.

So many, many other things, if someone's thrown to it and it's close to happening, countless things could make it more or less likely, the contributors.

But causes, there's just a few. We think that humans are really adapted to two radically different types of iodine environments, coastal or inland. And coastally adapted humans, they had a lot of iodine often.

A lot seaweed, seafood in the diet was a big part of things. So they were very good at mechanisms to detoxify it. Now, inland adapted humans often had very sparse amounts, so they were very good at just holding on to every speck and concentrating it.

But you can't be good saving every spec and then also detoxifying it, you kind of pick or choose. And with thyroid disease, nearly all types, it comes down to variations of about a dozen and a half different genetic SNPs.

And these SNPs are primarily ones correlated with iodine metabolism, with different activity of D-iodinase enzymes. So people are basically inland adapted or coastally adapted.

And the inland-adapted people now, if they're exposed to amounts that aren't even all that crazy high, that may move them out of their range of tolerance.

You know, that's really, really fascinating because I know so many people quote the Japanese.

Why Too Much Iodine Can Harm the Thyroid

Yeah. Oh my gosh. How can this be unhealthy when the japanese have so much iodine that they get through their diet and they're one of the more healthiest populations, right?

What are your thoughts about that? They're healthy in a lot of ways, but at the same time, it's not a coincidence that it was a Japanese doctor who first identified autoimmune thyroid disease.

And kind of a cool thing, first identification of auto immune disease in general. So Dr. Hikaru Hashimoto wrote a big paper back in 1907, and he saw that people with unexplained thyroid problems, when he analyzed their thyroid tissue under a microscope, he was full of immune cells, full lymphocytes.

And you realize somehow these lymphocytes were being driven in. So Japanese often do have good longevity, lower rates of many conditions, but they have the highest rates, of all versions of thyroid disease globally.

And they do, have genetic adaptations to higher amounts. But even with that, they, I really appreciate you sharing that because I feel like a lot of people that talk about that really miss that small minute detail of the higher rates of Hashimoto's in that population.

As far as I guess what might be the signs that somebody is consuming too much iodine and what what may be consequences for people beyond or maybe you can just tell us what are the consequences of having too Well, so too much back at that toxicology level, not very common, but that can even be fatal.

Back when all the old medicine bottles with the skull and crossbones on those, that was because iodine was one more popular means of suicide in the 18th century.

So yeah, way too is fatal But that's not common. Not many cases of that occur anymore. So too much in terms of intolerance, not toxicology, but intolerant.

The first things to really go wrong are thyroid problems. And that can be thyroid autoimmunity, changes in thyroid output. You know, when someone is having thyroid, auto immunity, they're looking at most commonly a couple of the relevant antibodies, their anti-thyroid proxidase or anti thyroglobulin.

And it's worth realizing that thyroid proxidase, its job is to oxidize inactive iodide into more active iodine. And then thyroglobulin is a protein where it stores.

So when someone is above their personal tolerance, there's more iodin than thyrolobin has room to store within the thyroid. Now this free radical damage pulls in the immune cells, they start attacking things, and soon they're attacking thyrioglobulins and thyroid It's really, really fascinating.

That was one of the first things I really wanted to unravel when I was trying to heal myself with Hashimoto's was high iodine, and do I do high-iodine?

Do I low iodide? do i do just the right amount? And I came across some researchers who were limiting people's iodined intake and they actually saw like really significant improvements in thyroid function where the other things I had seen too were people who are using high dose iodines A lot of times I've seen personally in my clients where there'll be subclinical hypothyroid, maybe antibodies in the 200 range or something like that, and their thyroid antibodies jump up really high, their TSH jumps up high.

Maybe they were more fatigued before, but all of a sudden they're like, I was bedridden because of this high-dose iodine. I think it's really important to just be mindful of what this can do.

from excess iodine. As far as the low iodide approach, what do you see in your clients and patients that go on a low-iodine protocol? Do they feel better?

Did they reduce their thyroid antibodies? Does their TSH normalize? I would love to for you to provide some of the results that you're seeing in your clients because you've been doing this for quite a few years now.

I saw some research studies about it a while ago, but I've only had maybe a handful of people that I put on the low iodine protocol, so I'm excited to learn more.

Yeah, you know, nothing works 100% of the time for everyone. One of larger controlled studies showed that of those who were compliant with the approach, that roughly 78% could reverse overt hypothyroidism, average TSA scores of 14 within about three months when they were positive with antibodies.

And some were not compliant. Some weren't following it well. And then some improved but didn't reverse all the way. So if you rephrase that one to say, of those who were compliant, how many radically reversed or improved a lot?

And that was a little over 95%. I've seen numbers that have been very positive. I haven't put hard numbers on those that I have interacted with. It's always tough because we can always see biased populations.

There might be those who have tried things and found other things more helpful and really never interacted. But I had every week I'll hear dozens of people who reach out.

send cards or send messages saying that, yeah, I now have been totally cured. Someone a couple of days ago sent in a note. She had a TSH of 46, or 40, it was 46. And she had very high antibodies in the hundreds, not in thousands, for anti-thyroid peroxidase, so I think in 30s for antithyroid globulin.

I'm kind of surprised. Many are put on medicines more quickly in situations like that. But she wished not to, she wish to forego. It was about two months of following the approach and she saw that her TSH normalized.

It came down that quickly, which was a pretty quick response. So that was good. And again, not everything works for everyone, but I see these things just all the time.

Then many who are on medication, often there's a little more involved because sometimes even if your body no longer needs the medicine, it does take reducing it in a cautious way to see that really play out.

But I also see many, who they no long need medication as well. And this is something I'd love to talk about how our views have evolved. The way mine has evolved, I think the most is that I have more optimistic than I've ever been before about, how likely the body is to recover.

Well, I remember back in the day, you were very much like, not that everybody should be on thyroid medication, but you are like a very big proponent of thyroid meditation.

And for you to come out and say you can actually get off of thyroid medication or may not need them, like I just want people to understand what a big deal this is.

For you actually say this because you're so experienced in working with all of the different thyroid medications and you've done it. for so long with so many patients that this is a big deal.

It's not like some crazy person off the street that's like, you might not need medication. So this was actually something that you have seen as a naturopathic doctor.

To expand upon that, for the first decade or so of practice, I didn't really see many examples of people who were on medicines and then no longer needed them, or where they had significantly abnormal levels and were able to correct those without medication.

I really didn' see that. And I saw people trying all sorts of things. Probably the single question I heard the most from people was, you know, that they were on medication was could I get off?

Who Is Most at Risk from Excess Iodine

Can I stop someday? And I would encourage people to focus more upon their health, their function, how they're feeling and working to feel their best and put less focus on which pills they are taking, because honestly I didn't have great answers.

I don't see things that work consistently. So yes, it's been a big shift. Yeah, it's just really exciting to be in this day and age because I feel like 10 years ago when we met, there weren't a lot of these resources and now we have the low iodine approach.

I know research on selenium and myonocytol has come out for subclinical hypothyroidism. And I've seen a lots of people having success with that as well as the red light, low-level laser therapy over the thyroid gland.

So it is exciting that we can share these innovative things that can be very, very helpful. Going back for a minute here, what exactly is fidosiodine versus low-dose iodine?

This is a question that people always ask, and I would love to know if you have defined that for people. How do you know what amount is gonna be problematic for an individual with maybe Hashimoto's antibodies and thyroid symptoms that has an elevated TSH?

Well, we got to think about the global intake. You know, one's global intakes. It's kind of funny. I talked to someone recently who was saying that whenever they ate protein, they gained weight.

And like, well, it's like you're packing a suitcase. A sweater can fit in a suit case, but not if there's 10 pairs of pants in there already. proteins like that in the diet and iodine's like, that too.

So it's not that any one thing is the deal breaker. It's how much you got in a suitcase, right? It is how which is there from all sources coming in. And there's been a lot of work done on this.

Honestly, more than any other nutrient, we've tracked iodines correlation with diseases, with thyroid disease, We have more data on this than vitamin C or any other nutrient.

So many populations have been tracked during before and after changes to their iodine intake. And there's a pretty clear threshold to where thyroid disease starts to emerge.

The higher population exceeds above about 200 micrograms per day. Now, there are those who really are not prone to thyroid disease, and they can likely have short-term exposure to about 1,100 micrograms without a lot of harm.

The World Health Organization has identified that. But those prone a thyroid diseases, the more they get above 200, more likely they are to be at risk.

And it's funny, we talk about a population's level, and it is really an average. There's a dumb joke about statistician who had his head in an oven and his feet in a ice bucket, he was on an Average of 72 degrees.

In the US, the last big survey showed that. If you break it down by age, gender, ethnicity, they're all a little different, but somewhere around 30 to 40% of the population at a given point in time is exceeding 200 micrograms per day.

And if they happen to have these genetic variations making them prone to thyroid disease, that can be a problem. I looked into, when I was doing research for my book, The Hashimoto's, the Rukahs, I've looked at the iodine levels in foods, right?

And so we know things like seaweed snacks, iodized salt are some of the highest for iodide content. What are the other foods that may contain iodines?

Yeah, it's hard to get good data. There have been several large NHANES studies on iodine that have done looking at different parts of the country, different sources repeatedly.

Basically, I found about 638 foods and about 50 samples per food that I analyzed and I wrote the thyroid reset diet. And what I saw was that there's some foods that consistently have pretty safe amounts, nothing has none.

Some foods have very consistent, safe amount, some goods consistently, have moderate amounts and then some food always have a lot or sometimes have lot, right?

And some things you mentioned, seaweed snacks, iodized salt, not really a big surprise for most. But there are a couple of weird outliers. Something I saw that was really made me curious.

There's so many people who have done better when they've gone gluten-free and dairy- free. Totally true. No debate about that. Your audience has shown that, and when I look back at sources of iodine in the diet, the most common sources don't have much more iodine than they've had in the past, and we're not eating much of them than we have in past with the exception of processed grains and dairy.

Those are two things that people now eat more than in prior decades, AND the amount of iodines in those foods can have MUCH more that it's had before.

So those are often very big sources people don t think about. That's really interesting because I feel like there's so much research going on on why bread might be problematic.

And then for people with celiac disease, which is more common in Hashimoto's, then it could be the gluten component. For people, with SIBO, 50% of Hashimoto's individuals might have, it can be a FODMAP component, It could also be a whole bunch of other things, but iodine could play a role in this as well.

With dairy, we thought it was casein or whey that were problematic, it could be the iodide component of dairy why that can be triggering for so many people.

That's a fascinating point to consider. Now, this is something that you really opened my eyes to, So I thought all of the iodine that we were intaking came from our food, but it's not just our foods that can contain iodide, right?

Can you tell us more about the other places it might be lurking? Yeah, I guess salt kind of goes in food sometimes or not. But yeah, so salts can have it fortified and it can be naturally occurring.

Oddly, there's many salts that have a lot, yet their label says this salt does not supply iodine and essential nutrient. So that can happen. That's a tricky one.

Supplements. Iodine is something that's extremely chemically reactive. That's why it's useful. It's an antiseptic. We think about bleach or peroxide or iodine in the same vein.

But because it is reactive, it can be very unpredictable and very unstable. When in supplements, almost never has the labeled amounts.

Low-Iodine Results and Medication Reduction

About three years ago, there was an assay of the iodide content in prenatal vitamins, and it looked at 120 different products. And what it saw was that exactly zero of the products were within 10% of labeled amounts.

and many had three or four fold above the labeled amounts. So yeah, a basal dietary intake, it's hard to get lower than about like 100 micrograms, even if you're deliberate.

If you think about 200 as a target for general safety, and then if there's more coming in from supplements, It's very hard get on track. Then the other big category is personal care products.

Iodine does absorb across intact skin, or of course also mucous membranes or damaged skin. Prior to 2018, Many hand sanitizers contained iodine as part of their sanitizing agents.

Well, it was noticed that hospital workers were being exposed to unsafe amounts and having higher rates of thyroid issues accordingly. And so it's banned from hand sanitizer then.

In many parts of the world have banned it from other personal care products. We've not. It's a useful molecule. Its an antiseptic. it makes creams not separate.

Makes things not get the wrong color. Does a lot of really useful stuff, but we absorb it. The amounts that affect us are so minuscule. I did the math on one of my wife's conditioners.

You know, I took her conditioner, and I pumped it as directed, then I weighed that, it was about 20 grams, looks like 20 million micrograms. Many conditioner's will have polyvinyl pyridone, also called PVP.

There's a few other names for that. Now, if you buy natural cosmetics, you won't have that you'll have kelp extract, but it's the same thing. yeah, sea vegetable extract.

It's the same thing. And that can make up maybe one or three percent of the formulation. Not a lot, right? Well, PVP is about 12% iodine, and about 4% of that is absorbed across intact skin.

So you take that 20 million times the 1% times, the 12%, times 4%, and you've still got over a thousand

micrograms that might enter your bloodstream from one personal care product.

Yeah, that really opened up my eyes when you told me about that. That there could be iodine in our personal care products. And as a pharmacologist, the thing about topical skin application, it bypasses the liver.

So usually if you take something orally, like the livers kind of works on it and you might not absorb as much of it. But when absorb it in the skin, you don't have that first pass effect.

I think people don't really appreciate like how impactful topical application. So you're putting on lotion or you are putting deep conditioner into your hair and that's absorbing through your scalp.

That could be quite impactful. I think you mentioned some of the ingredients we should be on the lookout for, like kelp extract. Are there any others to be looking out for?

I typically recommend clean hair, and skin products. And I'm wondering if this might be one of reasons why people feel better with clean skin care. probably, there's actually a lot of different names for PVP, but they're all some version of PVT, which is iodine is basically a lotion stabilizer.

Yeah. Thank you for sharing that. I think that's hugely eye-opening. You also talked about prenatal vitamins, and now I know A big concern for me is women of childbearing age and making sure that they are adequately supported through their pregnancy postpartum period.

We do know that thyroid disorders are more common in the post-partem period and that also women with thyroid disorder are at higher risk for miscarriage and having pregnancy complications and so on and forth.

And so the RDA for pregnant women for iodine is going to be higher. I want to give some reassurance perhaps to women in their childbearing ages. What should they be doing?

Because if you have Hashimoto's and high thyroid antibodies, what do you do about your prenatal? Yeah. A big question, too, that kind of categorizes what someone would need to do is whether they're on thyroid medication.

So when they are on third medication, they re meeting a great deal of iodine intake from that also. That's also worth taking into account. But yeah, those who are not on their medication and are pregnant, and again, this is not the bad guy.

It's not a bad thing. We need it. Its life-affirming. The amounts are higher during pregnancy. The recent papers coming out have shown that the requirements are high, not as much as we thought in the past.

So current guidelines suggest somewhere around like that 100 to 300 micrograms being a good reasonable target. But above that, we'll see a lot of these same issues emerge.

And kind of surprising, but the American College of Gynecology, the America Academy of Clinical Endocrinology the Americans Heart Association, there's not clear guidelines recommending iodine extra intake for pregnant women, believe it or not.

And they've shown that iodine supplements during pregnancy, they correlate with higher rates of thyroid antibodies, greater rates and morning sickness, but they do not correlate, with better health outcomes for the mother or the baby.

There was a large Cochran review done about that recently, and those are some of the conclusions they showed. That's very interesting. And I would say, kind of as a caveat to that, for women that are in their trying to become pregnant or pregnant.

This is probably not the time to think about weaning off of thyroid meds, right? The research does show that thyroid medications with thyroid antibodies and we have better pregnancy outcomes when we our TSH optimized and

utilizing low dose thyroid, med can help with pregnancy, outcomes and fertility and so on and forth.

Would you agree with that or what's your take on that? I've watched that literature pretty closely. I'll back up one more step that I was saying before about during pregnancy.

So I broke down foods into the lower, moderate, higher right-hand source. During pregnancy, I encourage one or two servings of moderate intake per day from foods.

That's the best way to get stable amounts, and there's lots of good options that way. Yeah, as far as thyroid and pregnancy and levels, I've watched that literature very closely, and it's evolved quite a bit.

What we now know is that, yeah, thyroid autoimmunity can affect pregnancy regardless of thyroid levels. And we also know that thyroid level, even within the normal range, can effect fertility.

So what we call subclinical hypo during pregnancy is different than the non-pregnant state. Yeah, I think it's interesting to keep an eye on the literature and as it evolves.

I know for me personally, if somebody is trying to get pregnant, i'm comfortable with telling them that they should probably optimize their thyroid hormone function if their TSH is elevated and if they have thyroid antibodies.

We'll kind of watch to see what more things evolve from that. The other, I think, important nutrient that oftentimes goes hand in hand with iodine is selenium.

And so that's another thing to consider, like, not necessarily doing just one thing in isolation, is to make sure that you're balancing the books. So, you know, looking at your ferritin levels, for pregnancy.

But I would love to actually talk a little bit more about the practicality of how do you get this low iodine approach for somebody who is perhaps thinking about like maybe they have subclinical hypothyroidism, or they haven't elevated TSH, elevated thyroid antibodies, and they're like, Okay, how Do I implement this into my life?

Like, How do I make it practical? You know, it's a really straightforward thing. The first step I encourage is just doing a quick inventory of personal care products.

And I did an analysis of just top sellers and kind of went through a bunch of topsellers. My hunch is that about a quarter to a third of products do have iodine.

So the flip side of that is most do not. If one of your favorites does, you'll see a lot of good parallel swaps that do, not that's easy to work around.

Once you know that you kind know. That so there's that. and then swapping out salt, doing versions of salt that don't have added iodine or don t have a lot of naturally occurring iodide, and that's super painless.

You're not having to give up on salt. Just changing the types. Then I think about really supplements doing an inventory that way, so back up one more step.

So if 200 micrograms above that is where we start seeing problems emerge, it seems that reversing it is a short-term timeframe of below 100 micrograms.

So yes, going below a hundred for some deliberate period of time is where most of that healing tends to occur. And with that target, again, even with being deliberately low in the diet, it's hard to get much lower than that.

So everything else pushes you over. That's where just being aware of it in supplements and avoiding makes a big difference. And there's thinking about the foods.

With the food, there are so many great options. There's no major food categories one has to give up. If someone is

already gluten-free, that's easy. They're already cutting out on a lot of big sources.

It's the same thing for dairy. And then also what we realize is that if someone is choosing to be paleo, autoimmune paleovegan, it's easy. But at the same time, there are ways in which if somebody is cutting out things that often have a lot of iodine, they may be missing some categories by which they're still getting a lots.

So taking what your diet is, if it is healthy, specific in some way, and just being more specific about the iodide content. Not a hard thing. All food categories are still available with some workarounds.

Fruits, vegetables, nuts, seeds, beans, animal proteins.

Practical Ways to Lower Iodine Exposure

These are things that really aren't big factors, so those don't really require limitation. There's plenty to eat. I think one of the things you had taught me about was the sea salt.

And you started talking about it, but I would love to get a little bit more clarity because there's different colors of sea-salt, and you might be able to tell by the colors as to their iodine content.

Is that right? Well, the more colors they have, more impurities they in general. That's what the color are. So there's that. Some types of sea salt have had assays showing they're generally low, some are higher than others.

Pink Himalayan has had a few assay that have been contradictory and not all been the same, but some have shown amounts that are quite high that has shown up.

And my mode of action with iodine has been you'll see things that have very different assays. And because my goal is to help someone get to a safe range, I'll say, look, let's be cautious.

So if things occasionally have high amounts, that's worth taking into account and working around. Those can be big sources of that. Thankfully, there's a lot of good salts that don't have it.

I didn't ask you about this, but this is a really important question. Do MRIs expose you to iodine? There's certain medical procedures that can cause a huge exposure.

Can you share maybe more about that? Yeah, yeah. So not so much the imaging itself, but contrast agents. In many cases, iodine is used as a contrast agent.

And it's kind of curious. There's versions of iodide used with those that are cleared rather rapidly. They're versions that often the body can clear. Not everyone can clean as others, though.

Sometimes they can stay in the bottom longer term and be problematic. But yes, if someone does have thyroid disease, it is worth talking about what kind contrast is proposed if they're going to get an MRI or a CT with contrast.

Yeah, I feel like that's such a key important thing to share because I know I've seen countless people who really had significant challenges after having that iodine contrast on.

I had an MRI, but they didn't use contrast. That isn't something that the MRI doesn't in itself cause it, right? Yeah. The next big medical source would be amiodarone, not a commonly used medication, We talked about 200 micrograms being a safe upper limit.

So each tablet of amiodarine is usually 250 milligrams, so it's a lot. And it causes so much damage. It's never given without there being lot of thought and without a few other options.

No one ever takes it lightly to prescribe it. But it has a long list of side effects that can come on six months after someone has used it, and most of those equate to the high amount of iodine in it Yeah, I remember learning about

that one in pharmacy school and it was like thyroid monitor, thyroid function, monitor thyroid, function.

It was a really big deal with it where because of that high iodine content, it can be very problematic for some people. In my experience, have also seen people who are like, oh, well, i'm just going to eat a whole bunch of seaweed snacks or they take those.

I want to say, is it called Lugol's or some other high dose iodide liquid where they essentially hear that their like it's going to help boost your energy and at first it can but then within a time a period of taking it they might feel a crash and they feel significantly worse so i've seen some people you know inadvertently like overdose themselves Do you have like a, you know, if somebody is in that, we talked about kind of people that are on an average daily exposure of iodine and this plan can work really well for them just to reduce their overall total load.

What about people who may be like mega dosed on iodide? What like what do you do for that? Do have something that you recommend that they follow? In the past, I've just been like, okay, We're not going to do that.

And we're going follow a low dose iodides protocol at this point, right? You know, the thing is the body can't clear a lot of iodine above a certain threshold.

So most of it is cleared through our kidneys. Some when we get exposed to a what some is also cleared, through the biliary routes in the stool and the sweat.

But those things all have limitations. And then what happens is within the thyroid. there are the proteins that store iodine, thyroglobulin mostly. Each molecule has designated spots for about 13 iodide atoms, but there's about 60 areas that it can end up.

I think about like, you see like the clown car, all the clouds roll out. There's not that many seats in the car. But there was a whole lot of clowns in there.

That's like too much iodined on thyro globulins. It's no longer in a seat, it's spilled over. The thyroid gets rid of iodines by making hormone and by releasing hormone.

there's only a speck of iodine that goes out through non-hormonal mechanisms. It's almost negligible. So when you're not making a lot of hormone and or you are on medication, iodide doesn't leave your thyroid very fast.

it's mostly staying there. And so if your daily intake is above some threshold, you may stay at an excess for quite some time. and it is only when can get your intake below a threshold where you can make a gradient that you start clearing it.

If there has been really high exposure, You mentioned some great things, some super important nutrients like selenium and zinc and iron. Make sure those things are all in appropriate levels.

Lacking those, then all of your iodine regulating enzymes, the D-iodinase enzymes only work more poorly. So those can help things work to a normal optimal level.

There's no way to rapid fire it out though, other than just time and yeah. Yeah, that can be quite tricky. I know a lot of times for people that have had those really high doses of exposure, you know, the tincture of time is what you need to really work through that process.

A lot of the research on selenium, when I was writing my book Hashimoto's The Root Cause, I just spent a lot time on Selenia. It's a very, very important thyroid nutrient.

And again, it's also one of those narrow therapeutic index nutrients. And that can work really well in synergy with selenium. And I remember seeing that people who were selinium deficient were more likely to have adverse reactions to iodine.

Has that been your experience as well? I know I typically, for most people that I work with, selanium is one of the nutrients that comes up for me as something to potentially consider if I see elevated thyroid antibodies.

Yeah, so people have their genetic iodine window, and the genes making someone prone to thyroid disease make the top of that window a little lower. And then to compound that, if someone has certain nutrient deficiencies, that can narrow it further.

So you can only expand your windows so much, but if you're lacking things, it gets tighter. There are some who argue that iodine is harmless with enough selenium, just not true.

Kind of a fun thing about selinium. There's often concern about getting excess from dietary sources. So a couple of weird things, there's paradise nuts and Brazil nuts.

Now paradise, nuts are not commonly on the market in North America, so almost never come across them. Brazil Nuts are. there was a study done in Brazil and Honestly, if they had asked me to approve the study, I don't think it was ethical to have done in the first place, but they did it.

What they do is they wanted to see if the selenium in Brazil nuts could become toxic at some threshold. So they gave it to preschoolers, like a lot. Like these preschools, they were consuming about 20% of their caloric intake from Brazil Nuts.

And this was done for three months. There was a similar cohort of kids who were on more common diets. Now another wrinkle, these were kids that were rather nutritionally poor.

They were somewhat malnourished. So if someone's apt to have a problem show up, it's even more likely when they're not at a full state nutritionly. Now, they did do a lot of tracking.

They tracked many markers of selenium's function, such as glutathione, selinium status, which is serum selinum, and selenin excretion, like selinin in the hair and the nails.

And what they saw is that the kids who were, I'm sorry, back up to the count, If you were thinking of an adult dose, it was about 30 to 40 Brazil nuts per day for a comparison to what it would be for an adults.

Is that how much these kids were doing for three months? The amount of selenium in Brazil that's can vary tremendously from time to time and batch to batch.

Totally true. Now, these kits in terms of their general health and overall scores of health in vitality, they end up being better than the cohort peers they were compared against.

Their glutathione status was fine. Their serum selenium was find. The selinium excretion was very high. They had a lot in their hair and their nails. This has led many to believe that the versions of seleneium metabolites in Brazil nuts are ones that their body can excrete more readily.

I don't think it's likely to overdose on them with reasonable intakes because in that extreme scenario, the kids didn't even overdose them. That is encouraging.

I feel like Brazil nuts are something that is our great source of selenium. In my experience, I haven't seen them move the needle as much as I have with selinium supplements per se, but that's urging that we can still enjoy them without worrying about like overdosing on them.

fascinating. So selenium works in different ways. It's part of the diet and it's used for a nutritional co-factor, but it also has effects that are non-nutritional, that our pharmacologic.

Yes, supplementation works and ways that parallel to dietary seleneum. In dietary Selenum, its benefits are more correlated with the degree to which someone is lacking in Seleneium.

If they're low, it'll help, if not. But independently of that, Selaneum can have pharmacological effects are often useful. Yeah, it's been so interesting to learn about nutrients and how they can be used to replenish deficiency and also that they could also take on other kinds of like pharmacological properties and selenium is one too when you do use it as a nutrient.

Typically, I don't like seeing it above 400 micrograms because you can actually become selenium toxic when you do take it as a nutrient. So just kind of a caveat for everybody listening.

With a lot of these things we're talking about, more is not necessarily merrier. We do want to make sure that they are in range. I'm telling you that I've seen that before, selenosis.

Yeah, tell me more about that. I know there was a compounding pharmacy that didn't do their math correctly, and there were big incidents of that, I want to stay on show horses or something.

There was case in humans too. This was about I think 15 years or so ago. It was kind of a supplement manufacturer made it incorrectly, so that happened.

In the later 90s, when antioxidants were more in vogue, there was a lot of antioxidant products that would include selenium, vitamin C, Vitamin A, zinc, and a patient of mine was taking, it ended up being about a thousand microns per day, but I didn't know that was the culprit at all.

He had a lotta vague malaise-type symptoms, he had rather unusual findings on his blood count, He was starting to see some hair loss. And on physical exam, he had, this is the funny thing we learned in medical school, a gingival stippling.

He had blue lines on his gums. And I saw that, and I remembered that was often a sign of lead poisoning. And also that did fit the abnormalities on his blood count.

That's what I was really suspecting. And just by stupid luck, the test that I did, which also showed his lead levels, happened to show his RBC amounts of selenium.

Lead was fine, but selinium was like 50 times above range. It was way, way off. And then I went through everything he was taking more thoroughly, like, oh, wow.

So we had him. The prescription was knock it off. You know, don't do that. And his scores came down and things went away. But it looks a lot like lead poisoning.

Yes, it can happen. Yeah, I haven't had any clients with selenium toxicity, but I have had some readers writing into me and saying that they were taking seleniom supplements for a long time and that the ended up essentially having levels that were too high and hair loss is one of the symptoms.

Pregnancy, Supplements, and Testing

In my experience, and just trying to ask more questions, some of them had the CBS gene mutation, that can perhaps increase that likelihood and maybe some I want to say maybe some issues with sulfur absorption and perhaps they were taking a few other things, but I have seen people writing in about this and generally speaking, I feel like, again, this is something that you want a really monitor and be mindful of when you are utilizing nutrients.

I did want to ask you about this. When you have somebody on the low iodine protocol, what markers are you measuring? We talked a little bit about TSH, so you're actually seeing that T SH going down for people.

Are there other markers that you are looking out for to make sure things are moving in the right direction that they're benefiting from the protocol? You know thyroid hormones, thyroid antibodies, markers of thyroid inflammation are relevant.

The curious thing is that there's a narrow context in which iodine tests are helpful. They're not predictive to see who would benefit or not. You would think that you could just do a test and say, oh, I'm high.

This will help. Or, well, i'm lower normal. I shouldn't bother with this. It's not like that. So there are definitely if someone is really high, that can be a problem.

But even those who are not high sometimes still benefit by reducing. And that's because what's happening within the thyroid is not the same as what we see in the blood or in urine.

The one time they can help is if Someone has been doing the approach for a while and not sure if they're seeing clear benefits. In that case, they can then test urinary iodine to creatinine ratios and get a ballpark idea on whether they're at a therapeutic level or not.

You mentioned those who might have consumed really high amounts from drops or whatnot. Yeah, in those cases, They can see if they've cleared it and got down to a range just yet or That makes sense.

Thank you for sharing that. What about in terms of thinking about, I know with certain nutrients or protocols, let's say if I have a person with multiple chemical sensitivities, that I'm like, okay, you're going to really benefit from liver support.

If I a have person that's just super, super irritable and burned out, like okay. Let's focus on your adrenals. And there's other people where I'm like, yeah, this might be too much for you.

And we're not going to go there with you just yet. Do you have any kind of people like that when you see them where you're like this would be a really good fit for a low iodine protocol?

Or you would like yep, let's not do that right now with. You like do you any patient profiles or categories that you put into those buckets? The difficulty is that for probably about 25 years, no one has seen me that doesn't have thyroid disease.

Yeah, no kidding. That's what it's helpful for. In terms of efficacy, to date, I've not seen studies of any other intervention actually reversing thyroid disease.

I wish we had more studies. The studies aren't perfect. But yeah, not all things work for all people. To date I have never seen other interventions fully reverse it once it is established.

So yeah, I think diet is a big factor and a good place to start. And if someone's already on a diet of some sort, that's great, but I'm going to encourage them to do it in a way to where they're also taking their iodine into account.

Yeah, I think that's such great advice. I Think the only studies that I've come across were in subclinical hypothyroidism, not like an overt hypathyroid ism.

And those were like celiac, or if you're celia gluten free diet, and then if You have, And then the my own acetal selenium and vitamin D for some people.

Those have improved those have Improved markers, i've seen studies show some improvement, but i'm not seeing studies of those showing reversal of disease.

Okay, so are you seeing like zero thyroid antibodies as well and then like just completely normal TSH, like around one with the low iodine protocol? Quite commonly, and I wouldn't say one being a mandatory target, but there's also published studies on overt hypothyroidism, you know, 60% reversal for adults with overt hyperthyroid.

Multiple studies and subclinical to where we're seeing, between first study 50 to 70% reverse low with sub clinical. So, so yeah, like full on disease reversal.

I think that gives a lot of hope. And this is a really, really exciting protocol. What people doing is like throwing their thyroid meds in the trash and being like, I'm going to start this tomorrow.

Can we talk about if somebody is already on thyroid meth? Maybe they've had thyroid disease for five, 10, 15, 20 years. They're already in a pretty high dose.

How would they If they had hopes of coming off of their meds and managing things naturally, how would they think about the process? What would you caution them to do?

There's been a couple of good studies done on the idea of de-prescribing. People are putting on medications, but there's not normally a process by which they're taken off.

If you start on something, you often end up staying on that. So some of the studies, actually, I'm sorry, all of them have a mixture of people, most of whom are probably subclinical or normal but perhaps not optimal.

But then also many were overt. Their thyroid really was shutting down. It's funny, but what we call subclinical hypothyroidism is actually not hypathyroid.

There's not a lack of thyroid hormone. there's a risk for that happening, But it hasn't happened just yet. Yeah, at overt hypotherapy, now the thyroid is decompensating and it's really shutting down.

So the studies I'm going to mention, there is a mix of people like that. And in them, they've shown that about 84% can successfully lower the dose of meds with no negative changes to symptoms or levels.

and about half of that cohort can come off. Now, some of the more recent ones have also added in iodine regulation. Basically, it's talking about some the bigger outlying sources of iodide and having them avoid those.

But they've shown that many can reduce. And the studies that I'm alluding to really haven't been done with other elaborate facets of care. They're not saying, hey, let's make sure your adrenals are healthy.

Let's do X, Y, Z. It's pretty much here's your meds. Here's a table schedule. Have at it. There's really not a lot more than that that's done. And even with that little involvement, many people can do fine on less.

But it is something that you do need supervision with. That does take some monitoring. Yeah. Yeah, thank you so much for sharing that. I think generally speaking, you know, working with a practitioner and then testing your numbers and looking out for your symptoms to make sure that you're tolerating the dosage reductions is a great point.

Do you have perhaps like an increment that you might recommend for a person to think about. Because I know I've seen people that were like, I'm going to cut my meds in half tomorrow.

And I am like well, maybe that's not the best idea, right? It's kind of shocking, but some of the recent papers were aggressive. We're doing it over only several weeks.

Most studies to date have done a two month timeframe. So basically a 25% reduction every other week for eight weeks has been most typical. But there's a lot of art and science to that.

And it's important to work with someone who really understands that process. A really common pitfall is someone will say they want to quit, their doctor is on board with the idea, maybe not experienced with it.

Then the doctor will test them right during their taper and see, oh, whether TSH has gone up or you can't do this. Well, that's normal. That's supposed to happen.

And that part of your body gets your thyroid going again. So it does really take understanding how things look and how the scores, what to test when and what it's going to look like at different time frames.

Yeah, I mean, it makes sense because your T SH will signal your brain to make more thyroid hormone. But the question is, is your Or is your thyroid going to be able to meet that demand?

And if it is, then that's a good thing. And, if not, that may be a conversation for like, hey, this maybe didn't work. How much time do you give the TSH to optimize with a dosage reduction?

What would you recommend? Because, like you said, some doctors might be like this ain't working. Let's go back to the drawing board, right? Yeah, if someone is actually off of medication, it's gonna be six months to reach a full baseline again.

Thankfully, T3 and T4 levels can be assessed and understood in a shorter timeframe, and you can still see how the thyroid is performing, but it can take some time for the TSH to level out.

That's amazing. Thank you so much for sharing that. I know there are people that have been interested in getting off of thyroid medications, and I've never really had a great answer for them before where I'd just been like, you know, for some people this can happen and we do it very gradually, I recommend doing it gradually and slowly with time, but this is like a protocol that you've been perfecting over the last few years and testing, so I really appreciate you sharing it with us.

Tapering Thyroid Medication Safely

For people that maybe want to learn more about this or how they could work with you, and I know you've also trained some practitioners on this, can you give them a little bit more information?

Sure. Our easiest resource would just be drchristianson.com. I've got quite a bit of information there about lots of free blogs on deprescribing and there's a digital program that guides people through the process as well.

But yeah, there is information available and it's something that Currently, I think my record is 45 years, someone who was on medication for 45 year that is now on none and totally stable.

So you'll hear things talking about certain timeframes, certain diagnoses, and really the more someone is doing the kind of things that you're teaching about, the thorough they are with their health, that the better their odds are.

That's really, really fascinating. And just to clarify, I think I maybe have asked, but does this protocol also lower thyroid antibodies, or do you expect to see them staying the same or going higher when you do this?

No, in nearly all cases, they come down. The consensus now is that medication use doesn't have a big effect on antibodies in all nearly cases. So the antibodies are so important.

They affect a lot of health and many symptoms, regardless of thyroid levels. But meds don't often do much for them, good or bad. Okay. And the low iodine approach, does it lower the thyroid antibodies too?

Well, yeah, again, so thyroid peroxidase, it's the enzyme that oxidizes iodide and thyroglogin is a protein that stores it. So they're all about iodines.

When it is lowered, they come down for most people by pretty dramatic amounts. I always kind of have this theory that thyroglobulin antibodies might be related to iodine overdose and just like toxicity in general.

I don't know if you've had any kind, I dunno, thoughts on that. There's a lot of good data about thyroblobulins antibodies specifically being affected by things apart from thyroid autoimmunity.

So they can be non-specific related inflammatory change. other autoimmune diseases, chronic infections, also thyroid volume. You know, we've got thyroglobulin and antithyroglubulin, but thyroid volum can also skew antitheroglobulins.

So yeah, other things can affect it as well. Yeah. Really, really interesting stuff. You are actually providing a free iodine food list for people listening today.

So I'm going to be linking that to the show notes. Thank you so much for providing that for us. That's going be incredibly helpful. Because like you said, it's kind of hard to track down this information, but you actually have tracked it down for so we really appreciate that.

you also created a documentary. and it's invisibleiodine.com. Can you tell us a little bit more about that? You know, it's the whole story. It's something that we don't think about, but it has been a big driver of thyroid disease.

And the correlation of iodine increasing in the diets has correlated with the rates of many types of thyroid disease going up. But the positive message is that most people can get to a low threshold and reverse the problem.

So this really talks about just all the data around how these things have changed over what time period they've changed, some of the hidden sources of that, and how you can be more aware of it all.

Thank you. I'm going to add both of those to the show notes. Thank You so much for everything that you do for the thyroid community. Now I am going put you on the spot a little bit.

What's the wellness hack that You refuse to participate in? At some point in time, I've done almost anything you can imagine. Everything extreme, tried all of it.

At this point, i won't do extreme diets anymore. I've done enough. I like to have a wide range of healthy foods and good enough amounts. That's just it, I won't do extreme food eliminations anymore.

You're done. Well, not everything is healthy for all people, for sure. And I don't consume all things. But yeah, don' like going on super narrow diets anymore, Most outlandish thing you've ever tried for your health.

So now this will help you understand why I didn't want to extreme diets any more. In trying everything, I once ran some version of a alternative cancer treatment protocol and I followed it in writing a paper on it, in medical school.

So for two weeks I lived on raw liver and raw collard greens, nothing else. And I put them in a blender and blended it up and choked it down and that was it.

Now, there's not a lot of foods that I don't like, but I still can't stomach collard greens. They're great foods. But ever since then, I'm like nope, that's the only thing I can do.

I think I need to send you like a medal because I this is the most extreme thing that anybody has done. So there is one more bad level. This was in medical school.

It was a starving student. That was broke. Had a crappy old cheap blender. Didn't even blend it up very good. Oh man, man. I'm going to try to get that out of my mind.

Do not try that at home. There's no reason to. Your personal routine, if you had the supplement police come to your house and say, I am going take away all of your supplements, but you can keep one, what would that be?

If it's just one probably vitamin D. I'm pretty fair complexed, I am in the north. We don't see a lot of sun that often and I need to do without that one entirely.

A lot of my friends in the northern hemisphere and in Canada have said that. Nobody in Texas has mentioned vitamin D. Do you have any guilty pleasures that are not doctor approved?

Maybe somebody would see you and they'd be like, is that Dr. Alan Christensen? Is he really doing that? You've known me for quite a while. Nothing all that interesting.

I do endurance races sometimes. The days before those, it's funny because you need a certain amount of calories, certain number of carbohydrate, and you can't do a lot of fiber.

You can just be filling up on whole food carbohydrates or you're going to be spending a whole lot more time in the rest stops than you want to do on your race.

Resources and Closing Conversation

It's all fiber-free, super high-carb foods. I'll make Rice Krispie Treats. That's an easy thing to get down that won't bother my stomach in high amounts or tons and tons of white rice.

So during those times, that's probably the closest thing. Apart from that, probably my biggest guilty pleasure is there are some really good NA beers nowadays.

And I really love those. So I'll have several a week. Yeah. When in Minnesota, like when in the Midwest, you've got to have your beers, right? Well, they're doing more non-alcoholic versions.

That's the NA part. And I have to tell everybody, so Dr. Christensen, if you ever go to a costume party with him, just be prepared, like bring a camera.

He is like so fun and so hilarious. And I mean, I've been at like wellness conferences and functional medicine conferences with him where they, somebody decides to have a costume party and Dr.

Christensen always takes it to the next level. I know like one year you came as Borat I got a picture of you and you're doing something kind of like this big and your mouth That sounds about right.

Do you have that picture? Maybe we can use it for promoting this episode. You can find it somewhere. Thank you so much, Dr. Christiansen. This has been so fun picking your brain.

I'm so excited to learn about your low iodine protocol and so exciting to share this with people because I feel like there's so many people that really want to do things the natural way, and they're wondering if there is anything they can utilize to get off of thyroid meds and really optimize their thyroid function.

And for some individuals, this could actually be a key. In a sea of everybody talking about high iodine, I fell like you're actually showing that this different approach can work really, really well.

And you have so much experience and evidence to back this up. I really appreciate you coming out with this approach. Your book, Thyroid Reset Diet, is where people can get the whole protocol if they wanted to perhaps learn more about that.

Is that right? It's all there. Recipes, meal plans, the story, lots of the science if you want it. Perfect. Thank you so much for taking the time to connect with us and for everybody listening.

I hope that this has been a healing part of your journey. Until next time.