Introduction to Cold Exposure

Hi, ladies. Welcome back to Mastering the Menopause Transition Summit. I'm your host, doctor Sharon Stills. A pleasure to be here with you today. I've got a fun conversation coming up for you that you initially may be thinking, what the heck does this have to do with my hormones?

But you've been around here a lot to know that. To me, mastering the menopause transition is a wide variety of actions, of lifestyle, of mind shifts that you are going to take to live a long, healthy, active, sexy life.

And so as a natural physician, one of the most important things in my toolkit that I learned eons ago in med school was hydrotherapy, the use of water to help you heal, alternating water.

Hot and cold water. Just cold water. Just hot water. And today I have with me a very special guest who has made his life all about water and cold exposure.

And so some of you may have heard of Wim Hof and you may have been intrigued by that. So I invite you to sit back and relax and learn about water with me.

And I couldn't think of anyone better to have this conversation with than Thomas Seager. He is a PhD and he is the CEO and co-founder of. I forgot to ask him how to pronounce it.

Miro's co forage for the time which makes the coldest ice baths in the world. The fort provides clean ice water for the practice of deliberate cold exposure to restore metabolism and build psychological resilience, something that we are all interested in.

So welcome to the summit, Thomas. It's really nice to have you here. I'm super excited to have this conversation. Thank you Sharon, it's a pleasure to be here.

And the invite is very generous of you. Well, I was telling him before we hit record that I have been following him on Instagram, so I'm, I'm already a fan, and I've been wanting one of your units for my yard.

And we both happened to be in Phoenix, Arizona, where right now, when we're recording this, it's triple digits. So going into a cold bath is not that scary.

But I have always one of the reasons I moved from New York to Arizona was because I couldn't handle the cold. I literally used to go into my office in New York in the winter, and I would just wear my ski suit.

I'd wear to go shopping at Whole Foods. People thought I was crazy, but I didn't care because it kept me warm. And so I have always been afraid of doing a cold plunge.

But yet I have overcome that fear to really reap the benefits. And so why don't you just tell us, for starters, how did you get involved with making this unit and learning about cold and utilizing it for health purposes?

Oof, this goes back maybe 4 or 5 years. I'm 56 years old now. And, when my daughter, who was finishing high school early, you know, she's getting ready to leave the nest.

And you're probably familiar that people lives, marriages, families, they're changing. They go through these different chapters. And it was time for a pivot in my life.

And I started reading everything. One of the books was called Gorilla Mindset. Before Mike Cernovich became this big political journalist. He wrote this book called Guerilla Mindset and he said, take cold showers.

And it was just what you were saying. You said, well, I couldn't handle the cold and I've gotten over the fear of it. Well, Sharon, it's not an act of bravery if it doesn't scare you, you know?

How the Ice Bath Company Began

So this guerilla mindset book was like, you need to do the things that scare you. It's the only way, you know to build your own courage. So, what was it, November or December?

Anyway, it was winter. We'll call it winter in Phoenix. And the tap water gets down to high 50s. So I went into the shower and I hated it. I hated every minute of it.

But I was determined to, you know, do these difficult things. I was trying to grow and develop as a person. And so I'd be in there like, oh, would you?

Mike Cernovich, you know, it was years later that I discovered there's this obscure journal called, you know, the Scandinavian Journal of Circumpolar Health or something crazy.

But they do these studies in Finland, and one of them compared partial cold water immersion to whole body cold water immersion. What they discovered is that the partial immersion increases your heart rate.

You get an adrenal response. It's a stress response. Makes sense. But when you go whole body, heart rate goes down and it's associated with the dive reflex.

Your body is preparing for a different experience. When you're submerged up to your neck, it, anticipates that you will be going all the way in diving into the water.

You don't know what you're going to do, hunt for mollusks or something. You know what our ever, our ancient ancestors would do in the water? And you need to conserve oxygen.

There is I mean, this is the biological response. So the cold showers that I were taking were getting me amped up and angry. Well, the tap water gets warmer in Phoenix all the way up to 90 degrees in the summertime.

And the whole cold shower thing wasn't working anymore. But, Jason, former student of mine, he discovered them. Hoff, there's this, Burning Man yoga art group.

And so, I mean, this is all before Covid. And he said, Tom, why don't you come over? We're going to do one this morning. Yoga and then cold plunge. I'm like, that's great.

We love the whole body. We love the cold plunge. And as you can imagine, by May or June we were buying 200 bags of ice. You know, putting it in the tub.

It would felt like it lasts us 15 minutes, you know, and Jason and I are both engineers. So we said, well, we ought to be able to figure this out. You know, I know Summerland hammocks.

I ought to be able to figure out refrigeration cost me tens of thousands of dollars in spare parts and tools. And we turned Jason's backyard into a workshop.

You would think that, like, Santa's elves were going to descend at any moment, you know, and start making toys or something, and we got it to work. Which is great, because now I could do my cold exposure without having to, you know, stop at the circle K or something and load up on ice.

We had a party and somebody wanted to buy one, and so it got in our head that we were never going to get all the money back that we'd spent on this toy.

If we didn't, you know, make them and and try and make a business out of it. Nobody was doing anything like this

at the time. But we did. I put it up on it was like a prototype.

I put it up on Etsy, and an entrepreneur in San Francisco bought one. He had been looking for this for years, and so did we, because there was no such thing as an ice bath at the time that we created Maura's coat forge.

Well, one thing led to another, and the next thing you know, Jason and his wife Adrian are going up to Burning Man again before Covid with a forge, and it was set up in a ship.

They brought ice baths to the playa and it became this like subculture sensation. We got an email from Ben Greenfield in Spokane, Washington, and he's a journalist and kind of an entertainer and an athlete.

He's got a hell of a following. And he said, you know, I've been looking for an ice bath, and I'm finishing my book. Boundless. Could you tell me about yours?

And so we didn't had no idea how this all affiliate marketing and how you know, Instagram worked me and my 950 followers. Thank you very much. That's RTP, right?

And so we said, well, okay, then, you know, we'll send you a fortune. And, you know, you can see how it works for yourself. By that time, it was like November, his book was going to press.

The forge hadn't even arrived. And when it did, he's in Spokane, Washington. He wasn't sure what he'd frozen solid like 20in of ice. He couldn't even get in it.

But he believed in cold exposure so much that he put us in his book anyway. And when the, the book came out that his forge thawed out so he could get in it, it was by that time, you know, March of 2020, April of 2020, and Covid hit and everything changed.

And people got very concerned about their taking responsibility for their own health, and they wanted home equipment to do that. We were overwhelmed with the orders.

It was really the the beginning of Miracle Forge as, real company instead of a backyard hobby for Jason and Adrian and I. And we have done so much work on the business, so much research on the benefits of cold exposure.

I'm going to plug one thing on our website. There is an article that I published a couple or three weeks ago, and I think it's called, myths, Facts and Mysteries about Cold Exposure.

There are a number of misconceptions that are circulating. You know, Google search on the web. We are hard to find via Google. We don't advertise, you know, we're not search engine optimized, but your listeners who make it through, you know, 45 minutes talking about ice baths, which is a miserable experience.

Your listeners may want to go to that article, look us up at Morrow's Co forge.com, click the ice baths science and find this myths, facts and mysteries because it's going to clarify a lot of the misconceptions and say what's true.

And you know, what's a folktale? Can you speak to that? Give us some give us some examples. You know what I the facts many people that we met had experience with ice baths from being high school or college athletes.

And I'd expect some of your audience would to, whether it's track or, running or, it could be volleyball or basketball, which is really hard on the knees.

And so they were taught in high school to use ice to reduce inflammation and speed recovery. So there are two, approaches. There are those people who say, oh, it's the best thing.

And those who people say, no, it's a bunch of crap.

Cold Exposure, Metabolism, and Brown Fat

The truth is that if you're in the middle of a multi-day performance or a tournament, I'm not sure if you happen to find yourself in the middle of the tour de France.

You know, then the ice baths will bring you back to performance level faster. It will help reduce the inflammation, repair the injury inside your muscles, in your joints, and get you back on your bicycle or back on your, you know, in your jogging suit, whatever it is, a lot faster what it.

But that comes at the expense of long term gains. If we are training, do not use Ice to recover from your workout because you've got to wait at least 3 or 4 hours.

Allow your body to respond to the the micro terrors and the injuries that are part of your workout. Let your body do its work to rebuild before you do your I mean and that takes hours.

I would even suggest sleep on it. Allow your body to rebuild overnight, then do your ice baths. So what we recommend is prequel your workout. And I discovered this quite accidentally.

Do the ice baths before you do the exercise. There's a lot of reasons why, and some of them are in that article, but you were asking for an example. And so both sides of the argument, the people who say, oh, ice baths for recovery are great.

They are. If what you're going for is a short term recovery, you can perform, oh, ice baths for recovery. You're terrible. They are. If what you're going for is longer term gains because you're in a training mode.

And who's going to sort that out? I mean it took me months. You so so for women listening, what are health benefits for someone who's not a professional athlete.

But where we're, you know, we're on our hormonal journey, we're going through menopause, and we just want to have good health and age gracefully and have clarity.

And how does the ice baths fit into that? How does cold exposure help? There are two dimensions, the physiological and the psychological. I'm going to talk about the physiological.

First, one of the myths is that ice baths are going to help you lose weight. And it is true that ice baths will activate your brown fat. They will clear glucose from your bloodstream.

They will increase your insulin sensitivity. You can reverse type two diabetes, ten days of deliberate cold exposure, no exercise, no changes in the diet.

I've got a really good study out of Germany on this. Because the cold exposure does so much for your brown fat. Improve your sensitivity that with any other changes, your type two diabetes will be resolved.

Oh that's great. What it will not do is help you lose weight even though you're burning fat while you're in the ice baths, and this has been very well documented.

There are compensatory metabolic processes. One of the reasons that the ice baths helps you sleep is because it lowers your core or basal body temperature while you're sleeping, and this helps your brain.

This helps you sleep and also reduces your metabolism. So even though you're all psyched up about the ice baths that you took and you've done great things for your blood sugar and great things for your metabolic health, and you have burn fat, your body will compensate later in the evening, especially.

You get a great night's sleep. But you you didn't burn any extra calories. Most people, although they say they want to lose weight and they probably should.

I mean, I'm one of them. What we're really concerned about is body composition. It is not the weight. It's not even

the BMI. It is what is the composition of your body that is important.

And here ice baths can help. If ice baths, we're going to help you lose weight. Then wouldn't there be, you know, Instagram models or something like that?

Wouldn't we see before and after pictures? You know, here I was, I was 250 pounds overweight, 250 pounds. And here I am, and now I weigh 190. And you know how I did it.

It was I there's none of those, those, those pictures exist for keto. Those pictures exist for, you know, intensive exercise program. Those pictures do not exist for people who are doing ice baths.

And there's a reason ice baths are a route to metabolic health, but they are not. And they are a good route to improving your body composition. But they're not for losing weight.

Diet is going to help you lose weight. So that's one of the physiological things. But let's talk about kind of a bummer, but that's really fascinating about type two diabetes.

I know it's extraordinary. We have a case study on, our website and, ostensibly, you know, the headline is about cats. Cats are, obligate carnivores. But the cat food that you buy in the store is awful.

Soybean meal and corn flour. And so when you feed your cat dry cat food, you are shocking their metabolic system with too many carbohydrates. So the canned food, the carnivorous food is better for the cats.

Well, there's a case study on our website of a woman. She's a former model. She struggled with anorexia. She's six foot one and 130 pounds. As a doctor, you can appreciate she was at 12% body fat and suffering from body dysmorphia, as many anorexics do.

She resolved her type two diabetes. So imagine someone that thin with an HBA one C of 7.2. It was extraordinary. She resolved to diabetes by eliminating the most of the liquid carbohydrates, getting the fruit juice and the soda out of her diet, starting ice baths practice, and improving her exercise.

When she saw her cats were topping out at 20 pounds, she made a connection. She said, wait a second, this is how I fixed my metabolism and she did not need to lose weight.

As a matter of fact, she needed to gain and she did. But when she saw her cats, she said, if this is the way my body is responding to the change in my environment and in my diet, and I've resolved my type two diabetes, what am I doing to my cats?

So she wrote this article about cats are obligate carnivores. Do not put your cat in the ice bath. That's not what we're talking about here. And in the middle of the article is this wonderful case study of her resolving a.

Her doctor was about to put her on insulin, which would have been the worst thing for her. It would have made her metabolism worse. And instead she changed her diet.

She started an ice baths practice. She started doing yoga, and she went from 7.2 down to like the 5.0, 4.9, where she really ought to be. You would think that's a medical miracle, except it's happening over and over again.

We've got some good continuous glucose monitoring data on what happens to people who are insulin resistant when they begin an ice baths practice. So you might have members of your audience who, they feel, oh, my hormones are changing, my metabolism is changing.

Hypothyroid, sadism and thyroid disorders are a big one. Ice baths correct that the thyroid signals the metabolism. So now the question is what signals the thyroid?

When you told me that you couldn't tolerate the cold, I was thinking, oh, Sharon's lost all her brown fat because the

only way to recruit and maintain brown fat into adulthood is cold exposure.

Adrian, Jason's wife, who co-founded Roscoe for Joe. She grew up in Florida. She moved to Arizona. She was never cold and she couldn't stand the cold.

And we didn't even know brown fat was a thing until about 10 or 11 years ago, when the advanced Pet scan started picking it up. Well, now we know that adults who don't experience regular cold exposure have no brown fat.

Then Beekman he was on Instagram. He wrote a great book, called Why We Get Sick. It's all about insulin resistance. And, Ben did a little monologue on Instagram about how it is brown fat that produces thyroid hormone.

So if we don't have brown fat because we don't have cold exposure now, we don't have thyroid and now our thyroid is dysregulated. So I go to the library and sure enough, there are people who tragically have had thyroidectomy because there's such a thing is thyroid.

Can't they remove the thyroid and then they study the bloodstream. And in this study they were looking for thyroid stimulating hormone. And sure enough, they got this great correlation between the amount of brown fat.

There's no thyroid in their body, but the brown fat was still producing thyroid stimulating hormone, as if they still had a thyroid. And it matched right there with what Ben Beekman was saying.

When your thyroid is dysregulated, there are things you can do with diet and they're going to help. But you're going to go to your doctor. Not you, Sharon, but an Alabama, medical doctor will say you're going to be on these prescriptions for the rest of your life.

It's not true. Because thyroid disorders can be corrected when you stimulate, activate, and recruit new brown fat using cold exposure. You have our attention.

This is, Oh, good. Yes. This is fantastic. So we've got type two diabetes. We've got hypothyroidism. Are there any other medical conditions that called exposure we'll help with?

There are. And it's because something like eight out of the ten leading causes of death in the United States, not medical errors. But some eight out of ten of these can be traced back to metabolic disorders.

So, as you know, there's something called metabolic syndrome.

Practical Cold Plunge Protocols and Mental Benefits

It amounts to insulin resistance, which, sometimes you'll hear from your doctor is prediabetes. Prediabetes is it's a vague, general unhelpful term. Insulin resistance is prediabetes.

And so now, you know, maybe you don't have your full on type two, but the insulin resistance is the source of cardiovascular disorders. It, unfortunately, some 80% of tumor cells feed exclusively off of glucose.

So it puts you at increased risk for cancer. And it is the precursor to cardiovascular disease. So it is almost unbelievable the risk profiles and the way they improve when you're taking care of your metabolism.

A lot of people have trouble, going low carb, going into keto, getting enough exercise, these lifestyle changes, they've been very difficult for people to implement.

But you give me 11 minutes a week and I'll put brown fat on your body with an ice pack. It will stabilize your blood glucose levels. It will fix your metabolic disorder.

It will lower all of these systemic risks that cause premature death in America. Now, you're not going to like it. I mean, it could be 11 miserable minutes, but we will talk about the psychological effects, when we wrap up the

physiological.

Okay. So how does that 11 minutes break down? Is that like. Well, right now we don't know. What I'm doing is I'm quoting a study from Denmark. There's a woman there. She's a PhD.

And she recently published this study in cell. She gathered so much data like you wouldn't believe. It is the most exhaustive repository of data on brown fat and human subjects that have ever seen.

Her name is Susanna. I'm going to mix this Serb or Serb, or you got to stick a potato in your mouth to pronounce Danish correctly. So the English version would be like Sjoberg.

But if you ever go to Denmark and you say that they're going to be okay, you know nothing. And I don't want to mess it up. So I'm trying. But Susanna Sjoberg and, it's a great study.

What she did was compare Danes who practice winter swimming. And it's pretty cold in the fjord in Denmark. You know, they measure it in degrees Celsius, but upper 30s.

Lower 40s. It can get even colder because she's been winter swimming and posting. The temperatures, she says 11 minutes because when they surveyed the Danish winter swimmers, the average was 11 minutes.

And when they assayed them for brown fat, they all had higher levels of brown fat. She knows, and it doesn't matter how you get it. One, you know, and a half minutes, seven days a week.

We'll do it. Five minutes. One day, you know, three minutes the next day and three minutes another day. That'll do it. And because the sample that she had these winter swimmers, their practices were really all over the place.

It was kind of random. We don't know how to optimize your cold exposure or whether it really makes a difference. What we do know is 11 minutes will get you the brown fat.

You might be able to do it in less. We haven't we haven't done the next study to show that. So when I get a machine from you and put it in my backyard, what are you going to.

Because I want to build the brown fat. So what are you gonna recommend that I. Are you going to recommend I go in it every morning, like for the listeners.

Like what's kind of practical? What what should we expect? You're going to want to go in it every morning. I'll tell you why. I'm not going to use the word addiction.

I have too much experience with that to misuse the word. However, you might feel, a compulsion because your body will become habituated to the dopamine reaction that you get.

And it's like three, four times the levels of dopamine. You know, that's the pleasure hormone. And we love that feeling. So you might find yourself craving the ice baths and you will want to practice every day.

I do sometimes I mean Phoenix in the summer. And it's 116°F now. Sometimes I'll do two. However, in the winter it's tough. So what I say is 2 to 4 minutes, maybe five times a week, and you can see how if all you're doing is two minutes and you're getting five times, it gets you really close to that 11 minute threshold.

There's going to be days when you miss. Traveling is the worst for me because I don't have my forage. And then I'll come back. And it's been when I came back from Quantico, you know, is at this conference.

And I was giving a talk and I was very jazzed about it because it's an academic conference. And I'm like, oh, imagine the Navy wants to hear from me. You know, but it's been five days without my forage.

And, boy, it was tough. I wanted to do it, but those first 15 seconds were really difficult. We breathe. We have a

whole method. So what would I recommend when you get your forage?

Even if it's just 30s, you know, you can kind of psych yourself out when you're starting to say, I'm just going to going, I'm going to go in real quick.

The most difficult thing is the first 15 seconds, because you will experience the gas briefly. You will experience as you go deeper the dive reflex. And these two, there's something called autonomic conflict.

One is saying pump yourself up, especially as you first get in and the other is saying, calm yourself down. Something neurologically is activating your fight or flight response.

This is the autonomic sympathetic nervous system. And every cell in your body. Sharon is going to be trying to tell you that you are going to die when you first get in, and that's when your brain has to take over and your brain says, this is what code feels like.

That's our mantra. You talking back to your cells and you say, this is not this is what cold feels like. And after you get through those 30s, this is why I say, just tell yourself I'm going to do 30s.

After you get through that, we've got some really good data on brain waves. It's backed up by what's in the literature on heart rate. You go down into a meditative brainwave state and you stay there.

I suck at meditation. Like, if I'm going to find my keys or something, you know, I will go, okay, I'm going to meditate. And then all these crazy thoughts go through my mind.

And in a way, meditation is helpful, but I keep quiet in my mind. I'm terrible at it. So we took, a woman who's a trainer. We've done, a guy who teaches improv theater.

He's a theater director. He's got a lot of meditation experience, and we've done some other people just kind of random walks of life. And we've measured the brain waves, dry land, you know, and then wet, cold.

And you would think that who could possibly meditate, meditate while they're in an ice bath? But it's not what happens. It's involuntary. The dopamine reaction, the norepinephrine reaction, the, sympathetic response of your body activates you at first.

And you think that you're having one, but your brain responds in, in this counterintuitive way. It goes down into a meditative state, and you get the benefits of the meditation without, you know, 20 years of monastic training to to be able to put yourself there.

So that's some of what's happening on the, psychological side. We advocate not cold exposure. So much for exercise recovery, but for management of stress.

Once you've come out of the ice baths and you, you know, been in this conversation with the cells of your body and you've talked them down off the ledge, so to speak, and you've said, this is what cold feels like.

I'm feeling cold now, and I'm okay with that. And you come out and you feel euphoria. It feels like you've cheated death, and then you go through the rest of your day and nothing bad can happen to you.

You know, somebody cuts you off on the ten, you don't care. You just survive that. You you feel so much more brave that you can keep, that you can maintain that calm feeling for hours because you you're victorious.

Yeah I can, I can testify to that. When I did my first ice bath I was so I go to Germany every year to study and take physicians over to learn European biological medicine.

And we always go to the Friedrich Spa, which is all time water sanatorium. And at the end they have the cold plunge. And I have always been afraid of it.

And I like, run in and I scream and I run out and it's like a whole mess. And I see my friend in there just meditating, and I'm like, how do you do that?

So I did my first training and Wim Hof and did a cold ice bath. I was terrified to go in the cold water, but it's kind of like when I have patients who are terrified of getting their blood drawn.

And I'm like, trust me, the fear you're experiencing now is so much more worse than what's going to actually happen when I stick the needle in your arm.

And so that was my experience with the cold, the the stress and the fear I put myself through about going in the bath when I finally got in it. Yes, I had that first 15 seconds, sympathetic.

But once I settled down and I am a experienced meditator and believe very much in meditation, once I settled into that, it was just like so peaceful and so meditative.

Instead of going in with the crazy screaming, just focusing and breathing helped guide me through that process. You've got it. You're doing it right, so you'll be able to put yourself in that mental state the more you practice it.

Just psychologically, you won't need the stimulation of the cold after you've practiced it. You'll be able to activate it inside yourself. And, that comes in handy for me when, when I'm negotiating or, when I'm activated because, being, I don't know, criticized on Twitter or something like that, you know, it it helps me to remember that I can flip that switch.

I can the mantra that I use in my thought, this is what cold feels like will create the same, psychological response when I feel like I'm being attacked.

It's activates the same fight or flight. And I can say, I mean, it's kind of weird, but this is what cold feels like. It's not cold. I'm not in the ice baths.

But I've already become attuned to the mantra. And then I remember to breathe. You you can't get in a fight, you know, you can't yell at somebody while you're breathing. And so.

Brings me back to my rational self.

Anxiety, Hormones, and Testosterone Effects

And that is so mindful the way you say it. I'm saying this is what cold feels like. That's what I always teach patients when it comes to being mindful.

We're just identifying where when you have a headache, this is what my headache feels like. This is the color of it. This is the temperature of it's so that's such a good way to explain it.

So for women listening who are suffering with anxiety, depression, fatigue, low libido, insomnia, how will the ice baths help with those types of issues?

Okay, you went through a lot of issues. And I'm trying to remember them in reverse order. Insomnia, libido, anxiety. We're all in there. Let's talk about anxiety. First, Viktor Frankl wrote a great book called Man's Search for meaning, and it was the first time I encountered this phrase anticipatory anxiety.

Anxiety is not the state of fear. You know, fear is. Oh, my God, I'm about to get, you know, hit by a bear. Or, you know, fear is a logical, rational, self-protective response to something happening in the present moment.

Anxiety is when you're worrying about the thing that isn't happening. It's only happening in your imagination. So this is what I came away from. Victor Frankl's phrase, anticipatory anxiety.

My daughter's got a calculus final, and she worries about it all day. She's not in the exam, but somehow she's afraid that she's going to go fail the exam.

Now, I'm not saying I did a good job raising my daughter because she's a little foul mouthed, but I remember her calculus final day and I said, you know, Emma, would you say something or other?

And she said, yeah, yes, I will get to your request as soon as I go finish fucking up my calculus test. And then she prepared herself. She took the anxiety away by imagining kind of this worst possible outcome, resigning herself to that and saying, it's going to be fun.

She got to beat. I was so proud. She's a great student. It was her only be, but in a way, it was an achievement because she learned to deal with her bitter anxiety.

I experienced the exact same thing when I'm staring down at my board and I see huge chunks of ice, you know, floating around the top. This still happens to me.

I wrote an article that said, set your forge to a temperature that frightens you because it's not an act of bravery if you're not scared. And then I relax.

I remember my daughter, I don't I don't expect me to be perfect. And sometimes I will say to myself exactly these words. Here's what's going to happen when I say, here's what's going to happen.

It's like I become locked in on the thing that I was anxious about. There are now no other alternatives. I have hypnotized myself. So I might say, here's what's going to happen.

I'm going to put in a toe. The toe is going to feel cold. I'm going to step all the way in and I'm going to experience the gas reflex. I'm going to sink down into my armpits, and I'm going to hate every second of it.

I'm going to remember to breathe, and then I'm going to decide if I want to get out or stay in. I treat this screenplay in my mind of, here's what's going to happen, and I learned that both by reading Victor Frankl's book and talking to my daughter, she'd say, well, here's what's going to happen.

I'm going to walk into that contest that I've prepared for, that I've studied for, and I'm going to fail it. I'm going to see that grades show up on my transcript, and then I'm going to decide if I want to take the class over again or not.

Anxiety disappears. When we practice this sort of, this here's what's going to happen. Self-hypnosis in the forge, we can transfer it to any other aspect of, like, you got a meeting with your accountant in which, I mean, I don't know, Sharon, which she says, no, no, you misunderstood depreciation.

And now you're going to owe the IRS 22,000 more dollars. You get this. That's something I would be anxious about. Here's what's going to happen. And the anxiety goes way down.

And it puts you in a position of saying, I'm going to go up to this point, and then I'm going to make a decision based upon the experience I just had.

So that's one, libido. This was a surprising finding that if you do your ice bath before your exercise, testosterone goes through the roof. Now, before the ladies get to, you know, well, I don't want to grow a beard, but we've only studied this in men, so I don't really know how it applies to women.

And I don't know what through the roof means for women. But I was going through this thing. I was getting all my blood work done. I'm like, okay, I'm going to be in this health and wellness thing.

I got to get a baseline bloodwork. Bloodwork came back fine, except for one thing a big red exclamation mark next to my prostate specific antigen. So if there's any men in your audience at all, I'd say is it thing that might be part of their routine bloodwork and it's not definitive.

But it's a marker that is correlated with increased risk of prostate cancer. I got concerned, so I started talking to men about prostate health, and it was sounded terrible.

I decided I was going to see if I could bring my PSA down with ice baths and keto going in and out of ketosis. The ice baths is great for that. Fastest way to stimulate endogenous ketone production is an ice baths.

Well, sure enough, nine months later, my PSA had gone from over seven to under one. I was at 0.8. Isn't that wonderful? But something else jumped out of my labs now.

The big red exclamation mark was next to free and total testosterone. What the heck is. I went to my urologist and, you know, I mentioned I'm in my mid 50s at the time, and my urologist, he thought I must have been juicing, like using a cream or so.

I needed to come right out and accuse me of that. He said, Tom, let's do another test. We're going to test you for luteinizing hormone. I had to look it up.

Metabolic precursor to testosterone. So if my LH is also high, it suggests that I'm endogenously naturally producing this. And we were talking like the levels of an oversexed 19 year old.

This was so. And luteinizing hormone came back with a red exclamation mark way too high. It was as if I had these teenage testosterone levels. I had to go to the library.

I mean, not literally, but, you know, go online and read the journal articles. And sure enough, there was a 1991 study of these Japanese college students when they did exercise and then an Ice bath for recovery, testosterone went away.

Now, not good for body composition, not good for muscle development when they did an ice bath and then exercise to recover from the cold. You know when they did it in the other order, luteinizing hormone and testosterone went way up.

And I was like, that's it. Because here I was, I had my prostate scare, I was doing more. I didn't have I would come out and be so cold. And I mean, you know, jumping jacks, push ups, and I get my steel mates out and stuff.

So I would get not it doesn't even take 20 minutes, just a few minutes of exercise to restore the circulation to my fingertips. So I thought, but I was having this huge hormonal benefit as well.

Well, for men, you know, this is great because you can maintain high testosterone levels well into middle age. But I've got a lot of questions about what it does for women.

And so far, I mean, the only answer is, well, it's great for ladies when their men have higher testosterone levels than that. And I feel a lot of ladies watching, but a lot of them have partners who, you know, for good health.

We have to we have to both be healthy if we're in a relationship. And so that that's and my experience is that prostate issues, contrary to popular belief, are from low testosterone, not too much testosterone.

So I actually treat prostate cancer with testosterone. No. Okay. One of the things that we can do with your patients is, experiment with this endogenous method because it's been repeated.

Jason did the same thing. He measures his testosterone on his birthday every year. He's up into the mid nine hundreds. He's almost at 1000. I peaked out over a thousand.

But, you know, testosterone goes up and down seasonally and throughout the day. We've since there've been more studies, studies on, you know, Italian rugby players and it seems really obscure.

But testosterone supplementation is a huge industry. It's full of charlatans. And when we find something that is

rooted in the science and repeatable in men as old as I am, we want to shout it from the rooftops and say, try it for yourself and see how it works and test it shows up in women.

It will be harder to detect because the testosterone levels are so low. But testosterone is also. It feeds the libido in women as well. So it might be if there's a woman struggling with libido, it could be her relationship. It every relationship I've been in, women are more responsive than men.

That is, they might not feel desire until it's stimulated in them. So that could be one thing. It also could be low key is a thing for women too. It's just that nobody talks about it.

We do in my practice. That's her straight away. And testosterone for women is so important. Not just for a sex drive, but for muscle and for anxiety than for bloodshot.

I mean, there's so many different emotions. Health, maintaining body composition. Yep. I agree, it's two overlooked because, it's so testosterone gets a bad name.

It's associated with steroids and bodybuilders and hyper masculinity. And people don't realize that in women it's supposed to be imbalance, and they're subject to many of the same environmental insults, whether it's diet or pollution that men are.

It even though it's more difficult to detect. Yes. There are millions of women with low teeth and not even asking a question of their doctors. Like you are right. Yes.

Well, around here we are. We are very familiar. We know that hormones are a symphony. Just like men have estrogen and progesterone. It's just we have them in different ratios and it's all about finding the balance.

So before we finish, are there crunch because I'm like ready to get my ice bath. But are there countries. Are there country indications that for are there some people listening who it's like you might think it sounds great and want to get out, run out and get one, but it's not a good idea for you.

The autonomic conflict that I talked about earlier, it scares a lot of people. If they have a heart condition, if they have, heartbeat irregularity, the idea of entering autonomic conflict, I mean, it's frightening.

So we wrote an article where the only ice bath and cold plunge company in the world to do this. It's called the dangers of ice baths or the dangers of deliberate cold exposure.

There are three, that people talk about. Or you can read about on Wikipedia. And the first one that's obvious is hypothermia. Hypothermia is not a danger.

It takes more than 30 minutes to to for your core body temperature to reach a medical definition of hypothermia. Yes. You get cold. Yes. Your skin gets cold. Yes.

A lot of things happen. It's not hypothermia. And it turns out that excessive heat is way more dangerous than excessive cold. The world record for, being immersed up to your neck in ice cubes is, like, 122 minutes, and those guys recovered fine.

I'm not worried about hypothermia. Because you're not going to be in there for 45 minutes. I was reading Kelly McGonigal. The upside of Stress, and it's a wonderful book.

And in there she said, two minutes of freezing cold water can kill you. I'm still here. I've done 22 minutes.

Safety, Contraindications, and Finding a Forge

She's just wrong about that. So this is a myth. Okay. The second one that people overlook is drowning. Look, anytime you're in the bath, drowning is a risk.

So what do we say about hypothermia? Well, don't stay in there for an hour. What do we say about drowning? For sober and supervised children? I don't think you actually need a buddy, but.

But if you go in there drunk, bad things can happen. People drown in bathtubs, for goodness sakes. And so, two safety tips. This third one, the autonomic conflict.

You go feet first and you breathe the breathing signals your body that you are not diving. You are not going down under the water. You do not have to conserve oxygen.

You take control of your breath and it will get you through the dive reflex. It's okay that your heart rate slows down. What we're trying to manage here is the autonomic conflict.

You go in feet first, not face first, because you go in face first, then your body's like, okay, we got to shut it all down. We're diving. So you go in feet first and you breathe.

You will experience the gasp reflex. And guess what? The antidote to that is to breathe. So these are the safety tips. I'm not a medical doctor. I'm a PhD.

And so the contra indications, they're not my specialty. What I want to do is create I want to address these three dangers so that people, have confidence in their experience.

The last one that's really important to us is there's no coercion, there's no bullying, there's no shaming. You get in and out of your own volition, and it is fine to talk to, Doctor Sharon first and say, you know, I'm a little worried about this, and there are so many things that we could be anxious about.

And if your medical doctor is saying, look, I don't see a problem for you with the autonomic conflict. And I've never found a documented case of automatic autonomic conflict resulting in a death.

It's just not in the literature. But it could be out there because I know that, we do put our we put stress on our heart system by doing this. So it'd be the one that I would say talk to your doctor about.

Great. Yeah. Just remembering where we are. I may be a doctor, but I'm not your doctor, so check with your doctor for anything we're recommending here to make sure it's safe for you.

So where can where can ladies who are interested for themselves and or their their male partners, where can they learn more? There is a page on our website called Find a Forge.

We have a number of people, small businesses who have a forge. And, you know, I don't know what it is. They all have different models, but you can buy a subscription, or you can do 25 bucks a pop or something like that.

I wish there were more in Phoenix. Of course. You can come to us at Morrow's Cove Forge. There's one in Berkeley. There's one in Nashville, there's one in Virginia.

So if you go to find a forge and you type in your zip code, it'll say, this is the forge nearest you. And if there isn't one close enough, then contact us info at Morrow's Co forge.com and we'll get you in our production.

Q Sharon, you know what you have to do. There's an online store, there's a credit card. You got to type in your information and it's summer time. The forge is really popular.

It takes a couple of months to, you know, make your forge and ship it out to you. Cool. Well, thank you for coming and sharing some really fascinating information about our thing. I want to leave you with sharing, ladies or their partners.

I have done what we call a partner plunge. It is a magnificent experience. My girlfriend and I, we were having an argument. She wasn't happy with me, but we also had a photo shoot schedule, and she showed up for the photo

shoot, like she said she was going to.

We went into the forge together. We held hands, we locked eyes. Everything melted away. All of the anger and the. But you said. And the accuses, it didn't matter.

It was a wonderful experience. If your audience is able to, you know, persuade their partners to do this with them, to meditate together in this eye contact, cold exposure kind of way, I want to hear about it because we don't have an exhaustive study.

I n equals one. It's a magical experience that I had, and I want to know if we can create that kind of magic for other couples, you know? So couples therapy in the cold I love it.

Well, awesome. Thank you for, for being here and sharing such fascinating information and just for solidifying that there are so many different ways to heal.

And they don't have to all come in a pill bottle. So, I hope you all enjoyed this. I hope you all have a new opening about what cold can do for you. And for those of you that are really inspired, such as myself, that you take action.

So, thanks for being here. Be well and usually say stay warm or say stay chilly and we'll be back with another interview soon.