## Nathan Crane:

Okay. Hello, hello. Welcome, everybody. It's Nathan Crane, director of the Health and Healing Club. So great to see all of you joining us for these Ask the Expert sessions, they are incredibly valuable, not only to myself, but I know to many of you in the community, because you tell us that they are. So, I'm really happy to have my friend and colleague Dr. Michelle Sands with us here today. Michelle, how you doing?

Dr. Michelle Sands: I'm doing great. Thanks so much.
Nathan Crane: We are both newish Floridians here to talk about the-
Dr. Michelle Sands:
Florida transplants.
Nathan Crane:
Just talking about the pros and cons of living in Florida so far. So far, for me, it's been worth it. What about for you?
Dr. Michelle Sands:
Oh, we love it. I love being able Well, we were in Vermont previously. So, those of you who live in the colder climate, you know what I'm talking about. You're just inside all winter. And when you do go outside, you're putting on like 10 layers of clothes. That's like, you got to go get the mail, but you got to put on boots and gloves and extra jackets. It's just a pain in the butt. It's like a hindrance to get outside. I love to be outside, so it's just nice to be able to go for a walk after dinner any day of the year that I want. So, that's one of the drivers for us moving down here for sure is just being outside.
Nathan Crane:
Same here. And sunshine, get a lot more vitamin D, now there's so-
Dr. Michelle Sands:
Yeah, it's huge.
Nathan Crane:
much breeze here, the air is so fresh actually. It's quite amazing. Donna says, "Hello from the Pennsylvania mountains." Hello, Donna.
Dr. Michelle Sands:
Hey.
Nathan Crane:

Michael says, "Lots of people moving to Florida last year or two." Yep. Different reasons for that.

Dr. Michelle Sands:

Yeah. For a variety of reasons. Right?

#### Nathan Crane:

Exactly. So, before we dive in, I'm actually going to officially introduce Dr. Michelle here, give you a little bit of her bio and the work she's been doing is amazing. I'm really looking forward to this. A lot of you have submitted great questions on the website ahead of time. So, we're going to start diving right into those. If you have questions that you want to ask Dr. Michelle during this interview, you can chat them into chat below, or you can raise your hand, your icon, we can call you in and actually come in and ask your question live. We try to get through as many of these questions as we can every two weeks. Then these recordings live inside the Health and Healing Club. So, you can go back and watch the recordings.

#### Nathan Crane:

As usual, this is not medical advice. This is informational only. So, make sure you consult with your own healthcare practitioner, whoever that may be, or somebody like Dr. Michelle Sands, if you want to consult with her, I know she does consults. You can contact her through her website at glownaturalwellness.com. She has a lot of great resources there for you. So, before we do, I want to congratulate our winner of our very first Health and Healing Club Testimonial Challenge, which is Carol. Carol, are you... Hey, there's Carol. Hey, you want to jump in and say, hello? Yay.

#### Carol Butler:

Well, I am so excited. It was enough for me to do the video, because I thought about it so long and so much. It was always too long and I had to keep making it shorter and shorter, and I had so much fun. Then I won, oh my God, Nathan. Thank you.

#### Nathan Crane:

Oh, well, thank you. I want to show it to everybody right now. Are you okay with that? I loved it.

Carol Butler:

Yes.

## Nathan Crane:

It is so creative. It's so genuine. So, the reason you won is because it was so authentic, it was creative. It's your truth. It's was inspiring to hear what you said. So, I'm going to share it with everyone right now. It's only a couple minutes and then we're going to dive in. Everybody cool with that? All right.

Dr. Michelle Sands:

Bring it on. I want to see.

Nathan Crane:

Let's see here. I think this should work. Can everybody see this?

Dr. Michelle Sands:

Yes.

Carol Butler:

Nathan Crane:
Okay. Here we go. Let me know if you can hear it okay.
Carol Butler:
Hello. I'm, Carol Butler. Hi. I have stage four breast cancer. Yes, I'm smiling because what I have learned from the Health and Healing Club is amazing. I have unbounded energy and my scans are excellent. I have changed my diet, eliminating foods that drain my energy. I sure miss my cheese, but it's out of my life. I have added foods-
Nathan Crane:
I love that.
Carol Butler:
that give me health. Being part of this community helps me feel less isolated, less alone, and eliminate some of my fear of having cancer and the future. Nathan, I have never met you, maybe someday, but I see you so often that I feel you're my friend. By the way, I recently renewed my membership. One of the top benefits I get from the Health and Healing Club is Ask the Expert, I generally ask a question and I get a wonderful response. I always get my questions directly answered. If that was the only thing that the Health and Healing Club offered, I would still join. Learning about fasting and the health benefits of fasting has been great for me. I've never fasted before, but now I'm up to 20 hours overnight and I feel terrific the next day. The third benefit is my daily meditation practice. My body and my mind get to rest and relax every day and I will do that forever. I am so excited about being in the Health and Healing Club that I feel like dancing.
Nathan Crane:
Oh, I love it. Love it. Yay. Woo-hoo. That was awesome.
Dr. Michelle Sands:
Wow. That's going to be tough to beat.
Nathan Crane: I know. Right? Isn't that amazing? That was so awesome. I love that. And I love that you dance, Carol. That is so awesome.

I dance. Yeah. But I'll tell you, I am so passionate about everything that you do in this club. It was so

authentic because that's how I feel, it's real, so real. I can't wait to hear Michelle.

#### Nathan Crane:

Yeah. So, with that, without further ado, let's dive in. So, thank you, Carol, for sharing that and let me officially introduce Michelle. So, Dr. Michelle Sands is an international bestselling author, a licensed naturopathic physician, and a functional medicine doctor. She's a female hormone and epigenetics expert, board certified holistic nutritionist, certified personal trainer, endurance athlete, wife and mother. She's passionate about helping women harness the power of nature and impact their genetic expression to live vibrantly. She uses modern science, functional lab testing, holistic lifestyle modifications, supplementation, homeopathy. Her famous Glow Protocol, we'll talk a little bit about, to help optimize health physically, mentally, emotionally, and spiritually. Her website is glownaturalwellness.com. Dr. Michelle Sands, thank you again for being here with us.

#### Dr. Michelle Sands:

Of course. Thank you so much for having me.

#### Nathan Crane:

So, I'm going to start some questions that came in right from our website. Let me pull up my other document here. We got a lot of good ones. This is actually from James. And James... I know you work a lot with women, but I think you work with some men as well. Right?

#### Dr. Michelle Sands:

It's funny, because my marketing and my main focus is towards women, but many of these women have sons and husbands who once their wives and moms, once the people are around them start getting healthier and more vibrant. The husband's like, "Hey, I want some of that." So, I end up working with men as well. You know what's funny is a lot of the things that help women's health and hormones also do help men's health and hormones. We have different organs, but a lot of the foundational principles still apply.

# Nathan Crane:

Absolutely. So, I want to go to James question was, "How to increase testosterone in older men and decrease estrogen?"

# Dr. Michelle Sands:

Oh, that's a great question. I mean, it's definitely a problem. We talk a lot about women going through menopause, where our estrogen and progesterone decline, but men also do go through a similar phenomenon called andropause. For men, it's a little more gradual. For women, when they hit menopause and their menstrual cycles and their ovaries just kind of drop off and women kind of go down a quicker drop. So, it's more abrupt. And women have a lot of those immediate symptoms. But men do have a gradual decline. There are actually a lot of things lifestyle-wise that you can do to help improve your testosterone levels.

## Dr. Michelle Sands:

Number one, healthy diet. So, eating a healthy, anti-inflammatory diet is going to be crucial. Avoiding the artificial foods, the GMOs, because those are going to affect the overall endocrine system, put stress on your body. So, that's very important as a foundation. I'm sure you guys talk a lot about that here in

the Health and Healing Club. For men specifically exercise with weight training is going to be very important for boosting testosterone levels. There's actually some studies that show lifting heavy weights will actually boost testosterone levels both in men and women, but more so in men. One of the best exercises for boosting testosterone happens to be chopping wood.

#### Dr. Michelle Sands:

Now, I don't know why, but the act of chopping wood is the biggest testosterone booster, but you can simulate that in the gym. I actually just worked out, that's why I'm kind of in my workout clothes. We have a gym in our house, but we were doing some rotational poles with the cable machine. You can simulate that at home with resistance bands, with weights. So, you don't have to have a full gym. You don't actually have to go to the gym. You can do squats, which use your bigger muscles in your body. So, body weight exercises, weight training. So, for men, exercise is going to be important.

## Dr. Michelle Sands:

Then what goes along with that as well is maintaining a healthy weight. So, when men are a little bit overweight or have extra fat on them, they're going to make more estrogen, because your fat cells will actually make estrogen. So, keeping your weight at a healthy weight is going to help with both your testosterone levels and balancing out that estrogen. Then supplement-wise or nutrient-wise, vitamin D is probably the biggest mover for testosterone. Men who have lower vitamin D levels tend to have like 20% less testosterone. This is men over age 60. So, this is super important. A lot of us in the United States, except for those of us that live in Florida, who are out in the sun, tend to have low vitamin D levels.

### Dr. Michelle Sands:

So, in the study that I was referencing that raised testosterone levels by 20%, they were only taking 3,500 IUs of vitamin D, which that's actually pretty low. I typically will recommend like 5,000 IUs based on your levels. So, when you get your blood tests done, this can be done at your doctor's office, they can draw your blood. Or you can also order these tests yourself online. A vitamin D test is pretty inexpensive, probably about \$50. You want your levels to be between... Now, if you're in the US, between 60 and 90 ng/dL, that's the measurement, nanograms per deciliter. So, between 60 and 90 is optimal. If you're like 50 or 40 or 30, then you want to supplement with vitamin D to bring those levels up.

# Dr. Michelle Sands:

Some people genetically don't take the sun and turn it into vitamin D as well as others. So, there's some genetic variants that will inhibit that. If you're one of those people, you'll want to supplement with vitamin D, going out on the sun might not do it for everybody. So, vitamin D is going to be super big. So, I'd recommend, if testosterone levels are low, getting your vitamin D checked. Like I said, it's very inexpensive, your doctor, if you have insurance, your doctor will probably run it for free. But if you can't get your doctor to run it for some reason, because insurance now, especially Medicare, is being really funny about tests that aren't for diseases. Medicare just came out with a statement that said they do not cover anything that is preventative or in an effort to improve quality of life, which I thought was insane. But that's their actual statement on their website.

#### Dr. Michelle Sands:

So, if you can't get it run through your doctor, it's totally worth it to either reach out to a practitioner like myself. I don't know if Nathan does any testing, but you can also go online, there's websites called like Direct Labs, where you can just order your own tests without a prescription, and they'll send you the results. If you have, you can look it up, or like I'm telling you between 60 and 90, you'll know if your levels are good. We do a lot of training in our practice on how to read your own lab tests as well. Because I think that a lot of times in conventional medicine, you'll go to the doctor and they'll run your vitamin D and they'll be like, "All your levels look good." And you only have 40. Because in conventional medicine they say anything over 30 is considered normal, but that's suboptimal. So, our optimal levels are different than what conventional medicine says is good or bad.

## Nathan Crane:

I want to flag that term right there, because that's a huge takeaway for anyone working with a conventional doctor or conventional oncologist, for example, they say... Look for words like normal when they say, "Oh yeah, your range is normal. You're in the normal." Which normal, especially if you're diagnosed with a chronic disease, you do not want to be at normal, we need to get to optimal. That's what you're saying.

## Dr. Michelle Sands:

Yeah. And you got to think about how they get the normal ranges, it's actually average of all the people who take the test. I'm saying that the majority of Americans are deficient in vitamin D, the average of all the people who take a vitamin D test are probably going to be low. So, the numbers are coming out lower. We really will need that optimal level if we want optimal hormone balance. Will you die if you have your vitamin D at 40? No. So, conventional... You're not going to have a disease, but you're going to have suboptimal testosterone levels. And for women, suboptimal estrogen, progesterone levels as well. That's a problem for our quality of life. That's a problem for how we feel and our ability to enjoy our life. It's not going to cause a disease per se directly. But indirectly, it's going to affect how your body's working. So, vitamin D, I can't talk about it enough, super important.

#### Dr. Michelle Sands:

Other nutrients as well, zinc. Zinc can help increase testosterone levels. If it's deficient, testosterone levels can be lower. Then magnesium is important for increasing levels of free testosterone. So, with hormones, we have our total hormone level, and then we have sex hormone binding globulin, which is the enzyme that binds up your hormones to make them kind of unusable in the body. If you don't have enough magnesium, you'll bind more of your testosterone, so you can't really use it. So, you have all the effects of having lower testosterone when your total testosterone might be enough. So, magnesium will allow you to have more free testosterone more available for you to use.

# Dr. Michelle Sands:

Then other lifestyle things you can do, sleep, having proper sleep is going to be important for your body to be able to produce testosterone. Then probably one of the biggest is going to be stress. So, reducing your stress, having some stress reduction practices in your life, it could be journaling in the morning. It could be breathing exercises. It could be gratitude practice. It could be meditation. It could be yoga or tai chi. It doesn't have to be the same thing for everybody. I have a lot of patients that are super busy

and one of the reasons they're stressed is because they are super busy. So, if I tell them, "Add in something else." That stresses them out even more. So, I like to just see like, "Well, what do you do when you wake up in the morning?" And they might be like, "Well, I make a cup of coffee and then I start checking my emails."

#### Dr. Michelle Sands:

I'll be like, "Well, can we negotiate that? While you're making your coffee, can you do some journaling? Maybe just write down your thoughts, get in touch with how you feel or write while you're doing your coffee, maybe just breathe in for a count of four, hold it for a count of four, breathe out for a count of four and then hold that for a count of four and repeat that for three minutes." And just getting a practice in that you can do every day that isn't too crazy, going to take up too much time, that alone, having that practice every day, that can totally affect how your brain... Because you have your hypothalamus and your pituitary gland that sends messages to your gonads in this place to make testosterone.

## Dr. Michelle Sands:

If your brain is stressed, that message, you're going to be sending the message to make cortisol instead of making testosterone. This could be stress from bills, it could be stress from relationships, it could be stress from chronic pain or other health conditions that you have. No matter where the stress is coming from, having a stress reduction practice is so essential both for testosterone, but this goes for all of our hormones, whether it be thyroid hormone, estrogen, progesterone, all of our hormones, they have a inverse relationship with stress.

# Dr. Michelle Sands:

So, when we're highly stressed, our body's focus is to produce more adrenaline and cortisol and produce less of our sex hormones. Because if you think about it, in prehistoric times, when we were stressed, it usually meant that we were falling off a cliff or running from a tiger. And if you're running from a tiger or falling off a cliff, you need adrenaline, you need your body to have more energy to your extremities, so you can save yourself. You don't need more testosterone, estrogen, so that you can have a sex drive. That's not a time to be making babies. It's a time to save yourself. So these systems in our body, they're actually created for those types of situations.

## Dr. Michelle Sands:

But now, here we are in 2022, which stress is not running from a tiger. Stress is like, we just got another bill in the mail. Or stress is we just turn on the news and they're telling us crazy things that we don't want to happen in our lives. Or our boss is telling us we have to work more hours. Or whatever it is. Those are the stressors. Now, they're not life or death stressors, but our body can't tell the difference. Our body doesn't know whether it's life or death or if it's something that's just stressing us out. So, it's still turning off those hormones that we don't want to turn off and turning on that cortisol and that adrenaline and we get anxiety, we get insomnia, we get all kinds of worked up rapid heart rate and we're not able to make our sex hormones that are important for our bones and our heart and our brain, and of course, our sex drive and our weight maintenance and all of those things that we want. But it's really stress is probably one of the biggest things that we need to conquer.

#### Nathan Crane:

I love that you shared some really great examples there. In Carol's testimonial that we saw as we opened up, talking about having a daily meditation practice, just how essential that is for our health and wellbeing and our mental, emotional wellbeing and helping regulate our hormones and downregulate excess cortisol. All the things you just talked about is so essential. So I'm glad you brought that up.

#### Dr. Michelle Sands:

Yeah. You've got to realize our hormones are like our messengers, kind of like our wifi in our body that's telling different parts of our body to do different things. But they're affected by all of the input. So, every move we make, every thought we have, every step we take, everything we're doing, our environment affects our hormones. So, we're very much connected to our environment. So, we got to just remember that when we're making choices of what to eat or we're making choices of whether to say yes or no to a responsibility, these are all hormonal choices. Yeah, what you said is so important.

#### Nathan Crane:

I love that. So, I want to go to the next question. That was wonderful, by the way, you just shared so much gold in that answer. So, thank you.

Dr. Michelle Sands:

Oh, thank you.

# Nathan Crane:

I want to go to Karen. Karen had asked a question. She says, "I've got breast cancer 15 years ago. That was estrogen and progesterone-driven. I had surgery and chemo followed by Tamoxifen. So I went into menopause at age 50, I'm 64 years old now, can I use a natural estrogen/progesterone replacement?"

# Dr. Michelle Sands:

It is possible. So, when someone has breast cancer and then they have treatment, the cancer's gone and if they've been on Tamoxifen or another hormone lowering medication, because that's what those medications do, they keep your hormones low, and they've been off it for two years. Then, I'll take it on a case-by-case scenario, we'll do a little history, medical history intake, we'll test your hormone levels and we'll look at your symptoms. Yes, it can be possible. We do have women in our practice who are on bioidentical topical hormones. So, not oral hormones, but topical hormones. And those can actually help improve quality of life and sometimes prevent recurrence of cancers, because you're taking up the estrogen receptor with a healthy bioidentical estrogen instead of a xenoestrogen or something from the environment that could be bad for you.

#### Dr. Michelle Sands:

But it's not true for all cases. So, I can't say it with a definite yes, that it would be the right choice for you, but it can definitely be a choice that we can investigate. But you want to work with somebody who is really, really knowledgeable in bioidentical hormone replacement and you never want to use oral hormones, whether they be synthetic or bioidentical, because it's the metabolites that break down... Because oral hormones go, you take them orally, of course, and then you swallow them. They go into your digestive tract and then they have to go to the liver for processing. The liver breaks those down

into hormone metabolites. Then that goes to your tissues. Where when you use topical hormones, the hormone goes into your bloodstream to your tissues. And then once it's already used, then it goes through your liver for detoxing out of your body. So, you want that first pass of the hormone, that's a healthier way to do it. Then the second pass, after its already gone through the liver.

#### Dr. Michelle Sands:

Because sometimes those metabolites, depending on your genetics and your lifestyle, you can make more of the harmful metabolites than the healthy metabolites of estrogen. So, estrogen, when we have estrogen, it can break down through three different pathways. So, it's the two, the four and the 16. So, basically, there's two of those pathways are less healthy and one of the pathways is more healthy. And one of the ways you can ensure that you're breaking your hormones down better pathways is there's testing you can do to see which pathways you're going down, but eating cruciferous vegetables that have a compound Indol-3-Carbinol in it, those help to push your estrogens down the more healthy pathways. And then taking a supplement called DIM, D-I-M, that will also help push your estrogen down the healthier pathway. So, those are ways to kind of ensure.

#### Dr. Michelle Sands:

I always recommend anyone who's had breast cancer or has a history of breast cancer to, if they can, test their hormone metabolites. There's two labs that we use. One of them is called Precision Analytical. It's called the DUTCH Test. That will test, it's a beautiful test, has really nice graphs, very easy to read, but it'll test your hormone levels, but it'll also test how you break down your hormones, which is just as important I feel like, as your hormone levels, is seeing how you're breaking them down. If you are breaking them down the less favorable pathways, then we can push that with supplements and food.

#### Dr. Michelle Sands:

Then the other test is similar. It's just by another lab called ZRT and they also do the... They're actually has the same technology, it's just the DUTCH test is prettier. And if you're someone who doesn't have a doctor to help you look at it, the DUTCH test is easier to read. But they're both very good tests. So, I would recommend testing and then looking at pushing the pathways down the healthier pathways. Then, if you do decide to, and you got the green light, to try bioidentical topical hormones, make sure that you're testing every few months to ensure that your levels are staying within the ideal range. So, when we do hormones in our practice, we automatically test every four months for everybody, because everybody's going to absorb their hormones differently. 20 milligrams for one woman might be too little and for another woman it might be too much. So, we always want to make sure that we're in the proper range. But it's not off the table. So, that's kind of my... It's individual. It's my final answer. Yeah.

# Nathan Crane:

Yeah, no, it's important to say that, obviously, it's individual and yet there are commonalities, as you're talking about. I have a question for you about root cause of hormone level imbalance. For example, like with cancer, when we say an estrogen-driven breast cancer, what tends to happen is we start to demonize estrogen as the cause of the breast cancer and say, "Oh, estrogen's bad. Let's do everything we can to lower that estrogen using whether it's drugs or other methods," versus asking the question, "What is going on at the root cause that's increasing the estrogen level?" I know you do a lot of work with that with your patients, right?

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Exactly.

#### Nathan Crane:

Trying to identify what's actually going on in your body and your diet and your lifestyle that's increasing these hormones? And what can we do to actually help your body naturally balance them?

## Dr. Michelle Sands:

Yeah. And a lot of times it's not even that the total estrogen is too high, it's because too high of a proportion of that estrogen is metabolizing down the carcinogenic pathway. So, what happens is when estrogen, too much of it, metabolizes down that pathway, it causes DNA damage and then that DNA damage is what leads to the cancer. So, it's not about... Because estrogen, we need estrogen for our brains to work. We need estrogen for our heart health. We need estrogen for our bones. We need estrogen for so many processes in our body. So, it's super important of a hormone, but the problem is the way it's metabolizing. Part of that is genetic and part of it is lifestyle. So, we've gotten away from eating fruits and vegetables as much as we used to and we're eating more kind of processed, packaged foods. We're not eating raw as much as we used to.

#### Dr. Michelle Sands:

So, raw broccoli is great. Broccoli sprouts are another amazing thing that you can use as a way to push that pathway. We don't eat a lot of sprouted food anymore either. So, these things are going to help push that pathway if it's down the improper pathway. So, it's not a death sentence. It's not that once it's there, you can't do anything about it. It's just that most people don't know it's there. Unfortunately, most gynecologists and most conventional doctors are never testing this, so women never know. Then the other thing with estrogen as well is that there are thousands of estrogen-like compounds in the environment now that we're never in our environment before. There's xenoestrogens and xenobiotics that are in plastics and the receipt paper that you get from the grocery store. So, that's another tip, never take the receipt, never hold onto the receipt when you go to the grocery store or any store, say, "No thank you." Because that receipt, the paper, the film on the paper is very estrogenic.

## Dr. Michelle Sands:

There's just so many different things that are... The Teflon pans, so many things that are adding these fake estrogen and these fake estrogens are very problematic and they lead to more cases like cancer than your own endogenous estrogen does. Then the other part is a lot of girls are on birth control pills. So, a lot of the birth control pills are synthetic estrogen. So, synthetic estrogen is very dangerous and it automatically metabolizes not so great and not in a favorable way. So, that creates more of those negative metabolites that can lead to more cancer.

#### Dr. Michelle Sands:

This is something that most doctors don't counsel young girls and women on at all, they just put them on birth control. A lot of times, not even for family planning purposes, but because they have menstrual cramps or because they have heavy bleeding, instead of figuring out what the root cause is. They're just covering up the bandaid with the synthetic hormone that has many side effects, including cancer and

heart disease and blood clotting, and a lot of things that is unfortunate. So, a lot of women are on those medications earlier in their life and then later can develop breast cancer.

#### Nathan Crane:

Yeah, exactly. It's kind of a sad state of affairs with that with young girls right now.

Dr. Michelle Sands:

Yeah.

#### Nathan Crane:

So, I'm going to move on to another question, this is a really good one. Actually, there's a couple questions here that tie into a little bit of what you just said. So, Donna is asking, she says, "I have MS, so I've had many MRIs with contrast, 20 to 25 MRIs with contrast over 10 years." I don't know if this is part of the question or if it's a statement, she says, "So is it possible," or, "So, it is possible," I don't know, "That the contrast agents are part of my entering early menopause with ovarian failure?" So, I guess that's part one. "If so," yes, that was a question. "If so, will time spent in far-infrared sauna assist in detoxing it?" I know of quite a bit of science that does show far-infrared saunas do detox heavy metals from the body through the skin, through sweating. So, I know that there is science that supports that, I don't know about contrast from MRIs specifically, do you, Michelle?

## Dr. Michelle Sands:

Yeah. So, when you get the MRI, the reason why they do the contrast is because they're able to see better, but that contrast agent has in it a heavy metal called gadolinium. So, it's G-A-D-O-L-L-I-N-I-U-M, I think. So, that is a pretty toxic heavy metal. If you get one MRI, your body has its own detoxification system and most people can detox it. Now, there was a thing out, I don't know if you guys know about this, but several years ago, Chuck Norris's wife had a huge lawsuit against the company that makes the contrast agent, because she got super sick after just a couple MRIs. It turns out that some people genetically do well with these, that particular metal. That's true for all metals. Some people, if I'm exposed to mercury, I get very sick. So, some people are just more sensitive to certain metals.

## Dr. Michelle Sands:

But having that many, anything you can do to help your body detox is going to be great. So, sweating is one... Our skin is one of our largest detox organs. So, sitting in a far-infrared sauna, that's going to definitely help the downstream detox, but unfortunately the heavy metal sometimes can get locked in our tissues. They can get locked in our bone. They can get locked in our fat cells. So, detoxing that amount of heavy metals can need a little bit more of a more aggressive approach. One of the things you can do is there's a compound called zeolite. Zeolite is a very good binder and that can actually help to bind the heavy metal and help you get it out of the body.

# Dr. Michelle Sands:

So, you're going to want to do anything you can to help you have regular bowel movements. Because one of the ways you detox is through your bowel movements. Drink lots of water, because that's going to help you urinate and get toxins out that way. Continue the far-infrared sauna, because that's going to help you sweat. Then you may want to incorporate some liver health with some milk thistle or bitter

herbs to help liver support. Tying in that question about, is this the reason for the hormone imbalance or the premature ovarian failure? It can be tied to it, because of the stress it's putting on the body and because of the fact that it's taxing the liver and the liver is really important for our hormone balance as well.

#### Dr. Michelle Sands:

Also, for me, I don't know if many of you know my story, but I was diagnosed with ovarian failure in my 20s, at age 21. I didn't have periods at all. I had a lot of health issues. But I was like, "What's wrong with me?" They did my blood test and were like, "Oh you have the hormones of like a 55 year old woman." And then I had more tests and more tests for the [inaudible 00:34:32] next years, I went to like seven different doctors. They're like, "Oh, you're in early menopause. You have premature ovarian failure. You're never going to have children." At the same time, I also had mercury toxicity, because I had a bunch of fillings. I had Hashimoto's thyroiditis. So, I had a thyroid issue. Then I had a lot of gut issues. So, I just went years and years of trying, find anybody who can help me. I went to Reiki healers, and I went to chiropractors, I went to every single doctor and nobody really had anything for me except for medications or things to cover up my symptoms.

## Dr. Michelle Sands:

Then I went back to school to become a naturopathic physician. During that time, I learned about all the systems of the body and how they're all connected, how the gut is connected to your hormones and how your mitochondria and your energy production systems are connected to all the other systems and your detox, the way you assimilate food and how you use your nutrients and how this is all connected. So, I'm like, "Well, maybe I can at least heal my gut and improve my thyroid function." So, I started putting all the practices in place. Then, 10 years later, I started getting my periods again. I met my husband, we got married. I told him, "I'm sorry, we're not going to be able to have kids." He's like, "No problem." And then we go on vacation and I get pregnant.

## Dr. Michelle Sands:

So, my ovaries did come back online. I had normal hormone levels now, because I was able to detox out all of the metals and fix the other issues that my body was experiencing. So, it's possible that that is the reason why this is happening. Of course, I don't have the rest of this person who asks the questions medical history. So, I don't know what else is going on in their life that might have been a contributor as well. But it's definitely possible. But zeolite is a binder that can be used. In our practice, we use a three-month process, where we open up the detox pathways first and then we work on detoxing any toxins from the body tissues. Then we work on detoxing the toxins from the brain tissues, so that it can move downstream. That will give you less toxin side effects. A lot of times when we do a detox, we get symptoms of flu and it starts to... Because the toxins are moving around. So, in our practice, we like to do a more gentle way to detox, especially when there's that much toxicity going on.

# Nathan Crane:

Absolutely. Yeah. I mean, you start detoxing, you can definitely feel sick. So, you got to be aware of that. And that's where those binders come in to really help move that out. As you said, making sure you're having good bowel movements, two or three a day, if you're going to be doing detoxing, because if you're not having that good of a bowel movement, then those toxins can get reabsorbed back into the bloodstream and cause some serious problems.

#### Dr. Michelle Sands:

Yeah. So, you want to make sure everything's flowing out. So, that's where the sauna comes in. That's where drinking plenty of water comes in. If you have trouble with bowel movement, you can consider a coffee enema or something like that, just to make sure things are flowing and that's going to help you bind and move out, bind and move out. Then also just having things like spirulina and chlorella and herbs in your diet as well can also help as weak binders. But the nature has so many things that we can use to help us overcome the manmade kind of interferences that we've put in. So, always look to nature first, always look to food as a foundation and lifestyle as a foundation and then add in the supplements, because supplements are supplemental to all the foundational stuff that we do.

#### Nathan Crane:

Exactly. Exactly. Beautiful. All right. I want to go to the next question here. Thank you so much for that answer. That was fantastic. This is from Mindy and Mindy's asking, "Is it true that bioidentical hormones can cause breast cancer if you have a SNP that does not allow you to detox or metabolize them?"

Dr. Michelle Sands:

Okay. So, she's talking about the genetic-

Nathan Crane:

Pathway, right, yeah.

# Dr. Michelle Sands:

... variant that we just talked about that can break estrogen down the improper pathway. This is true for the estrogen that your body produces. It's also true if you're adding more estrogen in. So, the answer is yes, it could, if you're not metabolizing the estrogen properly. So, you want to make sure that your estrogen metabolism is ideal before adding in more hormones.

#### Nathan Crane:

So, your estrogen metabolism is ideal. What's the range that you're looking for? So, that test that you talk about, DUTCH test is a good way to find out if your metabolism is working properly?

## Dr. Michelle Sands:

Yeah. So, it shows you, it's nice because it has a little graph, but basically like 70% to 80% of your estrogen should break down the two pathway, which is the favorable, the good pathway. And then a smaller amount, like 4% to 7% should break down the four pathway, which is the most dangerous pathway. Then the rest of it, which is like 10% or 8% should break down the 16 pathway, which is, it's kind of like a neutral pathway. It's not necessarily good or bad. But you want the majority, like 80% to go down that two pathway, which is going to be the healthy estrogen pathway.

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Got it.

### Dr. Michelle Sands:

That's how nature intended it to be. But yes, there are some genetic variants that if you're not eating your broccoli and taking your DIM and doing your broccoli spouts, then it can go down the improper pathway. Then there's also on the phase two of estrogen metabolism or detox, where methylation is involved. So, you have to methylate the estrogen so that it can move out of your body. So, some people don't methylate the estrogen very well. So, it will actually recirculate throughout the body. So, that can be one issue.

#### Dr. Michelle Sands:

Then also if you have liver toxicity or if you're drinking alcohol, or if you're taking in prescription meds that are causing liver insufficiencies, then what can happen is your body will put estrogen on the side and it won't break it down right away, because it's got to deal with the more dangerous compounds that you're putting in like alcohol, alcohol is a poison to your body. So, if you're drinking alcohol, your body's going to be like, your liver's going to say, "Okay, let me deal with alcohol. And then I'll deal with the estrogen later." And while the estrogen's sitting, it's kind of recirculating and it's not getting broken down properly and that can lead to higher levels of the improper metabolites.

#### Nathan Crane:

Got it. So, thank you for that. Mindy had a follow-up question, which is, "If breast cancer's driven by exogenous hormones, is it important to avoid dairy in all forms forever?" My short answer is yes, there's no real benefit to have dairy in our lives at all, aside from the addictive taste and nature of it. But what's your answer?

## Dr. Michelle Sands:

So, breast cancer can be a result of exogenous or endogenous hormones. So, it can be from the hormones your body is making if they're not metabolizing properly. So, I just wanted to say that. Milk, there's so many issues with milk, as far as inflammation, damage to the digestion, it doesn't really have any benefit. So, if there are hormones in milk, there's not supposed to be hormones in milk legally, but we know that there probably are, because they pump the cows up, especially if it's not organic, grassfed milk. The cows are pumped up with a lot of hormones and steroids and stress and then that's passed through to us. So, I would just recommend not drinking milk, not necessarily because it's a direct causation to breast cancer, so that's a causation for so many other health issues and hormone imbalances.

## Nathan Crane:

Yeah. I mean, we do know that... I mean, there's studies in PubMed, for example, that shows dairy plays a pretty key role in the development of things like prostate cancer, prostate cancer is generally a hormone-related cancer as well. So, there's a lot of studies around dairy and it's increasing IGF-1, for example, which if you have cancer or cancer risk, you definitely don't want your IGF-1 being increased with something like dairy. So, it's just safe to get dairy out of your diet altogether.

#### Nathan Crane:

Carol, I know what you said about the cheese, it's hard. I mean, I grew up on cheddar cheese. My mom used to, in the kitchen, she would grate this huge plate of cheddar cheese as she would make tacos or

some kind of dish. Every time she would sit there and grate a half a block of cheese, I'd run in as a kid and I'd take handfuls and just shovel it in my mouth. I'd drink a half gallon plus of milk a day. I just was so addicted to dairy. Then, by the time I was in my late teens, or late teens, early 20s, I had so many digestive issues and health problems and it wasn't only dairy, but I know once I got dairy out of my diet in my early 20s, along with switching to a plant-based diet and a lot of other changes, a lot of those issues eventually went away, which is really cool.

#### Dr. Michelle Sands:

Yeah. And even for those of us that have younger children or grandchildren, acne is a huge issue in developing girls and even PMS and having cramping and stuff like that, pulling milk out is a huge way to help a lot of those issues that the teenagers are facing as well. So, yeah, I grew up with... Well, I grew up in an Italian family, so it was pizza, pasta, pastries, donuts, milk. That was like all of our food groups. I'm lactose intolerant and gluten sensitive. So, once I pulled those out, my whole world changed. I just thought that everybody felt nauseous after they ate, because my dad would unbuckle his belt after 8:00 and he'd be like, "Oh, I need to go lay down." So, I'm like, "Oh, that's normal." But I realized it wasn't.

#### Nathan Crane:

Yeah. Carol, I see you have your hand raised. You want to jump in and ask a question?

#### Carol Butler:

Yes. Well, first of all, I miss cheese almost more than I miss ice cream. I'll just say.

# Nathan Crane:

There's some good almond cheese substitutes, believe it or not.

# Dr. Michelle Sands:

Yeah. Cashew cheese too. I tried to make it myself, but I had a huge fail. So, now I just buy it.

# Nathan Crane:

Yeah. I mean, it tastes really, really good, by the way, you can experiment. Yeah.

### Carol Butler:

I'll try it. I wanted to ask, I'm not exactly sure how to ask this question. I was listening the other night to Dr. Fuhrman. He talks so fast. Anyway, he was talking about high glycemic foods in relation to breast cancer. So, can you say anything... I mean, he was talking about insulin and all of that, but also in relation to breast cancer. I'm wondering if you could help me on that.

#### Dr. Michelle Sands:

Yeah. So, everything's connected in the body. So, when you have high glycemic foods, that's going to raise your blood sugar, which is going to raise your insulin, which affects your cortisol. Then the inflammation itself can affect how your body breaks things down. So, you could be pushing more of your metabolites down the improper pathway due to the downstream effect of inflammation and that raises blood sugar. And sugar feeds cancer. So, if you already have any dormant cancer cells, when you have

higher sugar, you're going to feed that cancer. So, you definitely, anytime you have a predisposition to cancer or you have cancer, or you're afraid of cancer, lower sugar is going to be a less hospitable environment for cancer to grow.

Carol Butler:

And carbohydrates as well, I guess?

#### Dr. Michelle Sands:

Carbohydrates themselves, as a macronutrient, aren't bad. In my practice, I don't say, "Oh, everyone should be keto," or, "Everyone should have no carbs." I think that carbohydrates are important for energy and, for some women, for hormone balance as well. It's just the moderation and knowing how your body responds. So, what we like to recommend is you can get an over-the-counter blood sugar monitor and you can test your blood sugar at home. And you can see how you respond to different food combinations and different foods. It's weird, because some people can eat blueberries and not have a blood sugar spike, but other people can't eat blueberries. Like for them, even though it's a low-glycemic fruit, it's very individualized how your body processes things. So, I don't recommend like don't eat any carbs. I really recommend a balanced diet, but looking at what's balanced for you and eating whole real carbs, don't eat bread... Bread doesn't grow on trees.

#### Dr. Michelle Sands:

Eat things that come in nature and in moderation. So, when you make your plate, I usually recommend cutting your plate down the middle, so you have a half circle and a half circle. One side is all green, leafy vegetables and broccoli and stuff like that. Then cut the other side in halves and then you have your protein and then you have your carbs down on the lower quarter. So, it's like a quarter of your plate. If you look at serving sizes for carbs, you'd be really shocked of how small it is. Half of a sweet potato is a serving size. But we tend to eat a giant potato as our serving size. So, I'm just keeping the carbs in moderation. For everybody, that's going to be a little different, depends on how active you are. I exercise a lot. I do a lot of weightlifting. So, I eat carbs around the time that I work out, because my body will burn through them. But I don't eat a lot of carbs later in the day, because that will raise my blood sugar and the type of carbs matter.

Caro	But	ler:
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Thank you.

## Nathan Crane:

Yeah. That's the big takeaway there, is the type of carbs matter. Not all sugar is bad sugar. Sugar gets demonized and then people translate that as to, "Oh well fruit has sugar. So all fruit is bad for you." Which is not true. Right?

Dr. Michelle Sands:

Right.

#### Nathan Crane:

Or same thing, like vegetables, so vegetables are carbs, or quinoa, or beans are carbs and those turn to sugars, so those are bad for you. So, that's how people get really on this really strong keto bandwagon thinking all carbs, all sugar is bad for you. But that's not true, even with cancer. Yes, you want to reduce your exposure to some of the high glycemic fruits and foods out there. But things like beans and Dr. Fuhrman will-

#### Dr. Michelle Sands:

Yeah. Beans are like the best hormone-balancing food that you can eat, because that's going to help, the fiber is going to help with your digestions. It's also going to help with your estrogen detox. So, we're a big fan of beans. I have a lot of friends that are in the paleo space and they're like, "Oh, you can't eat beans." And I'm kind of paleo-ish, where I don't demonize a whole real food, but I like to eat in the idea of green pasture, grass-fed foods and the healthy way. But beans are so under-respected, I think, because they're a great source of protein. They have healthy fiber. They have a lot of phytonutrients. So, those are great, especially if you're on a budget, they're an amazing source of hormone-balancing food.

#### Nathan Crane:

Yeah. If you want to talk about the worst culprits for high glycemic foods, I mean, you're talking about donuts, you're talking about-

Dr. Michelle Sands:

Yeah. Cookies.

# Nathan Crane:

... processed foods, cookies, those kinds of things, which you can make those at home easily, delicious, organic.

Dr. Michelle Sands:

Yes.

# Nathan Crane:

Stevia, for example, or just a little bit of honey. What's funny is when we make sweets at home, which we don't do it very much anymore, because we just don't eat that many sweets anymore. If I want something sweet, I'll just eat a banana or I'll have food or whatever, an orange. But when we do, I'll get a recipe from online and we'll usually modify it to make sure all the ingredients are organic and they're much healthier. But we will almost always cut whatever the sweetener is by three-quarters. So, if they say like, just an example, a cup of maple syrup, that's what they want. I'll put a quarter cup or less. And the thing is still very sweet. And I'm like-

#### Dr. Michelle Sands:

You've acclimated yourself to that sweet. Also, you've acclimated yourself to the natural, the way nature sweetens things. Unfortunately, because the way the food industry gets us is they keep making things more hyper-flavored and super sweet. So, especially with kids, when they're used to eating Skittles, that

are fruit-flavored candies, and then you give them an orange, it's not sweet enough. But if they've never had the Skittles, the orange is all the sweetness that they need. So, it's like training your palate, so it sounds like you've trained your palate to need less sugar and the sugar that you do have, your taste buds are like, "Ooh, this is a lot of sugar." So yeah, I think that's definitely, it's a process. So, if you're not there right now, it's like cutting, cutting, cutting.

Nathan Crane:

Exactly.

### Dr. Michelle Sands:

Yeah. And giving your body just the chance to experience food. When you eat an apple, actually take time, put in your mouth and just taste the flavors and experience the smell and how it looks and how it feels, actually be there with your food and you're going to taste it so much more.

#### Nathan Crane:

100%. So, we have some more questions in. Maybe we can just rapid fire some of these really quick. I know we've only got a few minutes left. Back to the dairy question, so Patty's asking, "What about goat's milk or cheese? Is that better? I find it digest much easier." I mean, my answer is no. I mean, dairy is dairy. It may be a little bit better, but you still have the negative consequences of it. Do you have thoughts on that, Michelle?

# Dr. Michelle Sands:

I think that once you're over two years old, you don't really need dairy. But if you want, once in a while or in moderation, have a dairy product, I think raw dairy or fermented dairy, like a yogurt might be a better option. Is goat milk better than cow's milk? Maybe. I would still say it's not the best option if you're looking to really optimize your health. Just do a cashew milk or an almond milk or something like that. But be careful when you get cashew milks and almond milks in cartons, because they do have a lot of additives in it. So, I'd recommend making your own or looking for a super clean brand. I think Califia Farms is a good one. There's some other ones too. I'm not associated in any way with that brand. But the Silk and stuff, they have a lot of additives in them that they may or may not be-

#### Nathan Crane:

Carrageenan, all kinds of stuff. Yeah.

# Dr. Michelle Sands:

Yeah. Yeah. I mean, I'm not really sure how bad some of carrageenan, it's a filler. I don't know how bad it is for you, but I know it's not natural. So, therefore it's not the best.

# Nathan Crane:

There's something called the Almond Cow, which I love, because we used to make all our own almond milk at home. But we squeezed it through the mesh net and then I finally splurged and bought the Almond Cow, I'm really glad I did. I highly recommend it for everyone. You can make almond milk at home in literally like-

#### Dr. Michelle Sands:

Super simple.

#### Nathan Crane:

So easy. I add a couple drops of vanilla, couple drops of Stevia, a little bit of sea salt in there. Boom. I mean, it's delicious. It's delicious and it's so fast and easy. I'm not associated with them either, but I use it. I love it. The Almond Cow.

#### Dr. Michelle Sands:

Yeah. I had one, but it's still in Vermont, because we still have our house in Vermont. So I'm like, "Oh, I didn't bring it." I don't use a lot of milk at all.

#### Nathan Crane:

I put it in my tea, I love almond milk in my tea. So, that's why I use it. But I want to go to Michael. Michael's asking, "How does one's overall metabolism relate to one's hormones metabolism? Would raising one, raise the other?"

#### Dr. Michelle Sands:

So, I know it's the same word we're using. Metabolism simply means the transfer of one item from one state to another. So, when we talk about our metabolism, our metabolic rate, how fast we burn calories, it's not really associated with how we're breaking down estrogen. Our body has many metabolic processes. So, having a faster, slow metabolism doesn't affect it all how you break down your estrogen. We call it metabolism, but it's really estrogen breakdown and the breakdown of calories for energy. But they're two different processes. I know they have the same words. So, it sounds similar, but it's not the same thing.

### Nathan Crane:

Yep. Beautiful. That clarifies it.

## Dr. Michelle Sands:

Does that make sense? I know it can be confusing, because when I say metabolism, yeah, that's what people think of right away, burning calories.

## Nathan Crane:

Some of these other questions you already answered. So, that's great. Last question here from Emese, "I took HRT for menopausal symptoms for about four years. Is there irreversible damage?"

#### Dr. Michelle Sands:

Okay. So, I think she's talking about synthetic hormone replacement therapy. So, HRT refers to hormone replacement therapy. Typically, when people say that they're talking about synthetic or manmade hormones and then BHRT, bioidentical hormone replacement therapy is usually when people are talking about the more natural or identical to the hormones that we have in our body. Most synthetic hormone replacement therapy that can be progestin, which is different. It's actually progesterone hydroxy

acetate, which is a compound that looks kind of like progesterone and acts kind of like progesterone, but is not the same as progesterone and our body knows that. That progestin is what has been studied to cause heart issues, stroke, many issues in the body. That's actually what's in the birth control pills as well, the progestin.

#### Dr. Michelle Sands:

Then, for the estrogen, a lot of times they can be using estrogen derived from a horse urine, which is Premarin, pregnant mare's urine, which we are not horses, last time I checked, we don't have tails. We don't have manes. We have hair, but it's very different. Again, it's like estrogen that's in the human body, but it's not, it's estrogen for a horse. So, the body knows that and it can alleviate the symptoms of menopause, like hot flashes and things like that. But it has downstream effects. It does break down that improper pathway, more carcinogenic pathway, and it has caused issues. Now, the good thing about hormone replacement therapy is once you stop taking it, it kind of leaves your body. So, you may have some residual effects. You may just want to really optimize your detoxification. Look at eating more fiber, look into the broccoli sprouts, the broccoli DIM as a supplement. Probiotics and fermented foods are going to be great, because that's going to help with your gut and detoxing out your gut.

## Dr. Michelle Sands:

And then omega-3s are going to be great as well, because omega-3s help with your natural hormone balance. So, I don't think there's irreversible damage depending on what symptoms you're currently experiencing or what health conditions you're experiencing right now. If you do have heart disease as a result or you do have clotting, or you have had a stroke, then that can be something that you're going to have to work on for years. Nothing's irreversible, I feel like, in the body, your body is constantly regenerating and renewing and there's really... Unless you lose a limb or you're missing a body part, I don't really feel there's much that is irreversible in the body. It does take time. I mean, it's not going to be overnight. But the more we can work on these foundations, the more you work on what Nathan's teaching here in the Health and Healing Club, you're going to incrementally improve and your body's going to regenerate and renew. You're going to have new skin cells and new ovary cells and new bone cells and nothing's irreversible.

Nathan Crane:	
I love it. What a beautiful	place to end, on a high, positive note.

Dr. Michelle Sands:

Yeah.

#### Nathan Crane:

Thank you so much for that, Michelle. I'm glad that... I know last week I had to reschedule, because of the huge thunderstorm [inaudible 00:59:42].

Dr. Michelle Sands:

I had no power.

#### Nathan Crane:

I'm glad that we were able to reschedule for this week. This was fantastic. Can you hold up your book there and let us know where can people get a copy of your book.

## Dr. Michelle Sands:

Yeah. So, this is called Hormone Harmony Over 35. It is basically all of the lifestyle... It teaches you about hormones and what all your hormones do and then how you can improve each of your hormones using lifestyle. So, I can give you guys a link to get for free, if you want the free copy, digital copy. I can send you that link, Nathan, and they can all download it for free.

#### Nathan Crane:

Yeah, absolutely. Do you want to just tell it to me here and then we'll put it inside with the-

#### Dr. Michelle Sands:

I think it's a long link. So, it's like slash this, slash that.

#### Nathan Crane:

And if people want the hard copy, they go to your website or Amazon?

## Dr. Michelle Sands:

Amazon, it's on amazon.com. If you want the hard... It's also at Barnes & Noble, if you want the actual physical copy. But if you just want to read it, in the back, I also have a complete 21-day plan for balancing hormones and metabolism, which it's basically my 21-day metabolic rehab plan that you can buy on my website for \$400. But it's free in the book. So, if you don't need the support and the coaching, then you can do it on your own. But if you want support and coaching, then we offer that as well. Then also, if you guys want to learn more about bioidentical hormones, we have a free master class that kind of teaches you the difference between bioidentical hormones, synthetic hormones and who's they're good for and who they're not for? Are they healthy? Are they dangerous? And dispels a lot of the myths about hormone replacement and whether you need it or not.

# Nathan Crane:

Where can people access that course?

## Dr. Michelle Sands:

So, it's a masterclass, it's like one hour and we can give you the link for that too. I think that it is... I'm so bad with knowing links.

#### Nathan Crane:

Whatever you guys can send it to me and then we'll put it below this video with the description for in the members area. So that [inaudible 01:01:43]-

## Dr. Michelle Sands:

Okay. Perfect. Perfect. Sounds great.

## Nathan Crane:

And then, Michelle's just website if you want to go there and look at more of the work that she does is glownaturalwellness.com. Michelle, thank you so much for taking the time. I really appreciate it.

# Dr. Michelle Sands:

You're welcome. You're welcome. It's so nice seeing everybody and great questions too. Those were great questions. So, thank you so much. And it was a pleasure.

# Nathan Crane:

Awesome. Thank you. Take care, everybody. We'll talk to you next time.