

## Episode 143 Transcript

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Dr. Darshan Shah

People are just now racing to put the first tool out there that's going to make some money, right? You know, they're building the minimum viable product to convince people that there's now, you know, in quotes I involved. And it's going to give you the right dosage of the right care. And the reality is there's nothing further from the truth right now.

00:00:16:21 - 00:00:42:05

Dr. Jaclyn Smeaton

Welcome to the DUTCH podcast where we dive deep into the science of hormones, wellness and personalized health care. I'm Doctor Jaclyn Smeaton, chief medical officer at DUTCH. Join us every Tuesday as we bring you expert insights, cutting edge research, and practical tips to help you take control of your health from the inside out. Whether you're a health care professional or simply looking to optimize your own well-being, we've got you covered.

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Dr. Jaclyn Smeaton

The contents of this podcast are for educational and informational purposes only. This information is not to be interpreted or mistaken for medical advice. Consult your health care provider for medical advice, diagnosis and treatment. Hi there and welcome to this week's episode of the DUTCH podcast. I'm so glad that you're here with me today. This is such a juicy episode and a juicy topic.

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Dr. Jaclyn Smeaton

It's one that you guys have asked us to cover in more depth for a long period of time, and it's all about lab Testing. When it comes to longevity and extending health span, and what are all the things that we need to be thinking about when it comes to lab Testing? Today's guest is an expert in that. Doctor Darshan Shah is the founder of Next Health, which is a series of clinics around the country that really focuses on what he calls hyper preventive medicine.

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Dr. Jaclyn Smeaton

They do quarterly lab Testing, plus using all of the biometric data that we can gather

on our own to really help guide patients to their optimal health. And I think from my point of view, their clinics really have it in the bag. As far as a system to be able to utilize data, utilize AI, and utilize the personalization that we still need as patients with our health care provider to really get good care for patients.

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Dr. Jaclyn Smeaton

We talked in this episode all about the standard labs that should be run, and also some of the additional functional labs that they run and depend upon. Frequently things that address these core root causes of health. The other thing I really loved about this conversation is that we went over and over and over again, back to the idea that so many labs that are Tested right now in health care are what we'd call lagging indicator.

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Dr. Jaclyn Smeaton

It's like the last thing to change. No. Doctor Shah talks about CDC and IT. It's a comprehensive metabolic panel. That's the last place that we see changes occur. But for so many different conditions there are leading indicators are leading measures. Some of them are in our wearable data. Some of them are in blood. Some of them are on DUTCH and on other functional Tests that can pick up problems sooner and help you actually intervene before you have a disease state.

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Dr. Jaclyn Smeaton

I know you want to know what those are. I'm going to let Doctor Shah tell you. Without much further ado, I want to welcome our guest today, Doctor Darshan Shah. Like I said, he's a board certified surgeon, came from a surgical background and really transitioned into a longevity medicine specialist. Like I said, he's the founder of Next Health, the world's first and largest health optimization and longevity clinic.

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Dr. Jaclyn Smeaton

He's performed over 20,000 surgical procedures and advised thousands of patients on improving their metabolic health, their health span and their lifespan. Really excited to have you today. Let's get started. So, Doctor Shah, it's so great to have you back on the podcast. Thanks for joining me.

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Dr. Darshan Shah

Can't believe I'm on your second time. Thank you for having me again.

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Dr. Jaclyn Smeaton

It's been like a full year just over a year. And this time I can hear you so much better because we're not in the expo hall with so much noise behind us.

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Dr. Darshan Shah

Yeah, that is a noisy expo hall.

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Dr. Jaclyn Smeaton

It is? Yeah. We had recorded our last podcast live at a forum, which was so much fun and such a great vibrant environment. But this makes it like we can really dive into a lot of great juicy detail today. So I'm thrilled.

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Dr. Darshan Shah

Let's do it.

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Dr. Jaclyn Smeaton

So I don't know that we really got to capture it last time we talked to you like a little bit about your backstory, because you came from a traditional medical background, but you've really shifted into longevity and preventive care. And and now you have this business next health, which is really next level care. Can you tell us a little bit about your journey to get here?

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Dr. Darshan Shah

Yeah. So it all came. You know, they always say necessity is the mother of invention. Right. And so I started off. You know, I've been a doctor now for 30 years. My first 20 years was spent, being a surgeon. So I was in the operating room every single day, 14 hours a day, sometimes five, six, seven days a week, many times.

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Dr. Darshan Shah

And, you know, being a physician, the more, the more treatment you put forth, the more surgeries you do, the more money you make. Right? So obviously, like, I was kind of stuck in that whole, world of just, you know, just chasing a tail, like in on the hamster wheel of just doing tons of surgery. Grew a big, giant business with that, which then makes you have to work more because now you're managing hundreds of employees and seeing hundreds of patients.

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Dr. Darshan Shah

And I just got stuck in that. And so I found myself ten years ago, not having taken care of myself for 20 years, I had all sorts of medical issues and autoimmune problem, hypertension, diabetes, and also major hormonal dysregulation. And so I out of my own need to get better, which I wasn't finding in the kind of the Western care model.

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Dr. Darshan Shah

I went and saw, advice and functional medicine and I got better. And I thought to myself, I'm done being a surgeon. I want to I want to do something different. I really was inspired with my own journey, getting, first of all, of course, my lifestyle in order, but then also my hormones in order. I have in my gut health in order.

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Dr. Darshan Shah

And it all just tied together. You and I said, why does everyone not have access to this? And I started a new clinical business called Next Health. And now that's grown to over 25 locations all over the world, and we're expanding that even further.

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Dr. Jaclyn Smeaton

Yeah, next health is a really exciting model. Can you share a little bit about it with our listeners?

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Dr. Darshan Shah

Yeah. So, you know, I basically wanted a place to go, for people that was kind of the opposite of what Western Medical Care was offering. So we wanted beautiful environments where people can actually be fully engaged in their health and wellness journey. Number one, to reverse chronic disease, but also, number two, just feel incredible. And so we designed offices that people call the Apple Store of Health and

Wellness, because when you walk in, there's all sorts of treatments.

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Dr. Darshan Shah

You can do anything from hyperbaric oxygen therapy to IV therapy to hot cold contrast therapy. But also, you can meet with fully trained functional medicine and longevity medicine practitioners that can help you reverse chronic disease and help you start feeling great again. And so we treat everything from mold to Lyme to, reversal of diabetes, reversal of metabolic disease to mitochondrial dysfunction.

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Dr. Darshan Shah

We do everything and, we really just help people feel better. And that's kind of what we're doing in Excel.

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Dr. Jaclyn Smeaton

That's great. Now, one of the things that really kind of just leads us so nicely into the topic of today's podcast, because I really see you as one of the leading experts in data driven decision making in medicine and particularly in longevity medicine. And I think now there's so much out there and so much available for people with like, devices to biohacking.

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Dr. Jaclyn Smeaton

I actually left my offering next to my toenail. I left it this morning and just realize I forgot to put my rings back on. But everyone's wearing some kind of tracking device. Of course, there's lots of labs available. There's functional labs, there's standard labs, there's do it yourself labs, more and more the direct to consumer. Can you talk a little bit about like how you view that landscape of how data is influencing people's ability to, like, expand their healthspan and what's working and what's not working?

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Dr. Darshan Shah

Right? I would say it's an incredible time. We live in where we finally have more data that we have access to as patients that we can look at to help us drive our own personal decision making. And, you know, it used to be just ten years ago, it was a world where, you know, you had to get a doctor's order to get a laboratory done.

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Dr. Darshan Shah

Right. And now it's so different. You can get it all yourself. There were no wearables 10 or 15 years ago besides just a pedometer, right? And now you have all this data and what it really enables. Finally, for the first time is if we can stop practicing population based medicine and move to a model where we do end of one medicine, right?

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Dr. Darshan Shah

And so end of one medicine is where you have access to your own data, and you can then use that data to see how particular interventions are working on you, not on a population basis. And so, you know, every drug we have, every pharmaceutical, every surgery, we decide if it's going to be beneficial or not based on a randomized controlled trial.

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Dr. Darshan Shah

And basically what we're looking at there is a bell shaped curve. Okay. Here's this intervention. It works for most of the people. So let's try it on everybody and see what happens. And, you know, 95% of the time you have an okay reaction. That's what makes something safe to put out to the public. But 5% of people have a terrible reaction.

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Dr. Darshan Shah

They have horrible side effects and it doesn't and they can't take it. But what about all those people in between those people that have no response but are still doing an intervention, or people that are having, even the opposite, you're having a great response and you, you just don't even know. And so finally, you know, with access to our own data and multiple data points, we can now see how interventions are working for us as individuals.

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Dr. Darshan Shah

And we're moving into an era of end of one medicine enable, not just by the massive amounts of data that we can collect, but now also in the last year enabled by AI in putting all of this together, is going to, I think, revolutionize health and health care in this century.

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Dr. Jaclyn Smeaton

Yeah, it's really amazing how dramatically things have shifted when it comes to both the behavior around data, like it used to seem like physicians kind of owned labs, and you had to go back in to get your results oftentimes. And I remember even being taught around, you should have your patient in there to walk them through, because if something's wrong, they need you at that time.

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Dr. Jaclyn Smeaton

And now it's so, so different behaviorally with docs and our ability to collect, you know, just a funny story. Like I have spent my clinical years in like menstrual health. And I remember teaching women to do charting for their cycles to know what's going on. And the best innovation in my first, let's say, five years of practice was that there was a basal body temperature thermometer that came out, or a thermometer that because you had to wake up at the same time every day to take your temp, that you could take your temperature and then put it on your nightstand.

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Dr. Jaclyn Smeaton

And then when you woke up later, you could when you turn it on, it showed your last reading. So you didn't have to actually, like, chart it at that very moment. And I thought that was groundbreaking. So we've come a long way now.

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Dr. Darshan Shah

Yeah, it's really just accelerated. And in the next five years we're going to see basically every every piece of data that we have instantly accessible, evaluated and feedback given to us on our phones. Right. And, I think that that's going to come very quickly. Multiple different companies are doing this. And then we just have to find kind of a new place where, where is all this dust going to settle?

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Dr. Darshan Shah

Right? Yeah. Because people still want human interaction with practitioners. And I think that's critical. I think there's a level of trust there. I think there's a level of, empathy there that you're not going to get from an AI chat bot. Right? But the practitioner also needs to be able to use these chat bots in these AI tools to make sure they're not missing something, to make sure they're fully considered mountains

of data that they normally would not have time to review.

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Dr. Darshan Shah

And so we're going to see where all this dust settles. But I really do believe it's going to settle in a place where it's going to have the most positive impact on us as individuals.

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Dr. Jaclyn Smeaton

Yeah, I'd love to hear you speak more about that, because I think you're interfacing with that a lot. And that's a big question for a lot of us, is like with the advent of I mean, I know there's a lot of like new companies that pop up, like in the menopause care space. There's a lot where you enter in a survey.

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Dr. Jaclyn Smeaton

And then really what it looks like is that like chat know bots are calculating and delivering recommended dosages. They're probably legally required to be reviewed by a physician before the prescription is written, but it's really an automated process now, and I think it's hard for consumers and patients to tell the difference between what, you know, what's a real human and what's not.

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Dr. Jaclyn Smeaton

What are some of the pitfalls or the problems that you've seen with this so far?

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Dr. Darshan Shah

Exactly what you mentioned. People are just now racing to put the first tool out there that's going to make some money. Right. And so this is kind of, you know, they're building the minimum viable product to convince people that there's now, you know, in quotes AI involved, and it's going to give you the right dosage of the right care.

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Dr. Darshan Shah

And the reality is there's nothing further from the truth right now. People are just building the minimum viable product that is getting you to buy something. And that should be the first kind of alarm signal that goes off in the people ads. If like, you're taken to a path to buy something. Right. And so simultaneously right now, like us and

Max health, we're building, there's many clinics building products that truly enable much better care.

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Dr. Darshan Shah

Right. And the reason we're doing it is, once again, you know, necessity is the mother of invention. We see there's a lot of data being thrown at us. Our practitioners don't have time to fully evaluate and consider all the data. So we need something that's going to kind of consolidate the data for us. Also, we have AI available to really make sure we're not missing blind spots.

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Dr. Darshan Shah

Right. And so I think I was really good to tell the practitioner, have you considered this, this and this in addition to this, this and this. Right. And then we also now are building tools to educate patients more in an automatic fashion by using, AI to help us create educational documents, educational tools, emails, even chat bots, where it's informed by the clinicians and what the clinicians understand about the patient.

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Dr. Darshan Shah

But then they don't really have the time to sit for hours and hours to fully explain. And so that's where we can use these tools to create that interface, where patients can get educated. Because we really believe that there's nothing that's going to move the needle more for patients and to really understand what's going on with their body.

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Dr. Darshan Shah

So they almost need to become, you know, many experts in their own body and their own biomarkers in a targeted fashion for what's affecting them at that moment in time.

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Dr. Jaclyn Smeaton

Well, it's really empowering, right? When you can see the information behind the way that you feel and you can see those metrics move and the way you feel, change it. Certainly. You know, not that every patient we wish we could all just trust our own experience, but, I mean, you and I both know and working with patients, they want to see those numbers shift as reinforcement, or they want to see them out of range to

justify that behavior change that they really don't want to have to do.

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Dr. Jaclyn Smeaton

Like, I don't know, eating vegetables or working out every day.

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Dr. Darshan Shah

Yeah. And what I've seen is, a lot of just a self-fulfilling prophecy when people see the data change because we all know the data changes way before the symptoms. Oh, yeah. Or reverse or change. Right. And so when people see the data change, they are more motivated to continue those behaviors that move the data in the positive direction.

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Dr. Darshan Shah

And then they start feeling better and they're like, oh, wow, this is all working. And so I think the data is critical. And for people to get the data and understand the data is critical. And, you know, I know there's a lot of talk about data anxiety. My experience has been very few people have true data anxiety. Once you actually sit with them and you help them understand the data, and, and make and help and coach them through the process of making changes.

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Dr. Darshan Shah

And so, you know, we've been very successful in getting people to use the data to their advantage.

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Dr. Jaclyn Smeaton

Yeah. That's interesting that you bring that up. I had another, podcast guest last week where we were talking a little bit about the just the feeling of overwhelm and anxiety that a lot of patients have about implementation of behavior change, too, or that they feel as though they're the cause of their illness and they micromanage every input in their body.

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Dr. Jaclyn Smeaton

When some would be more impactful than another. I'll give you an example. Just a

friend of mine posted on that. I thought this was such a great a great post where it's like, if you're going to take your olefin, but you're still drinking two drinks a night, like, don't come talk to me right where it's like you're spending all this money on these quick fixes and you're olefins are really impactful compound and really beneficial compound.

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Dr. Jaclyn Smeaton

But the point being, you need to put your energy first where it's most necessary. And in her case, she was pointing out elimination of this toxin that really damages mitochondria. And I thought that was really resonant because, you know, you can put anxiety around all these micromanaging pieces. But really, when it comes to longevity and healthspan, there are some core fundamental pieces that should be in play before you even layer things on, like all of the additional hyperbaric oxygen or whatever other things you're going to layer on.

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Dr. Darshan Shah

Yeah, absolutely. I mean, it has to all start with the base of the pyramid, which is getting the lifestyle changes solidified in your day to day routine. And that doesn't mean that you can't, you know, have a drink of wine.

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Dr. Jaclyn Smeaton

Of course.

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Dr. Darshan Shah

Dinner 1 or 2 nights a week. But obviously, like if you're going to be drinking every single day, that's going to lead to long term consequences that are way outweighed by any supplement that you're going to take. And so, I think the data also then gives you the feedback that you are creating, compounding damage. And drinking is a really good example because it's pretty immediate how quickly you can see the result in your sleep.

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Dr. Darshan Shah

When you stop drinking for a few days in a row, it's massive. Right. And so that's that's a really good example for me. And one I use quite frequently with my patients, you

know, because to really prove someone that drinking is causing damage, it's hard, right, until they start having liver function Tests abnormality. But when you show them the metrics of their sleep and how they improve after just taking 2 or 3 nights off, it can be a real game changer for people.

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Dr. Jaclyn Smeaton

Those, that feedback that you get from your body, from those changes can be really impactful to be able to continue on, which is. Right. So, I want to talk a little bit about some of like single hormone or single marker hormone labs. Like we look at serum Testing. We really we can measure estrogen, we can measure progesterone, etc. or we have these functional panels like the DUTCH Test.

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Dr. Jaclyn Smeaton

And I know that we've we're working to incorporate DUTCH Testing into the next health model, which it kind of brings it beyond that surface level hormone measurement. Can you talk a little bit about like why you think that's important for your patients? And as far as getting that, like I call it a three dimensional hormone assessment.

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Dr. Darshan Shah

I think is a perfect way to describe it. Right. I think that if as practitioners, we have a responsibility to use all the tools available to us to really guide a patient's care, and when you're looking at a picture one moment in time of someone's blood markers, which you know, we check them quarterly on our patients, it still doesn't give you a clear picture of what's going on.

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Dr. Darshan Shah

And you and I both know that, you know, your sex hormone system, your thyroid hormone system, your cortisol axis, and even your metabolic health, they're all tied together. They're all interwoven. They all affect each other. And so it's incredibly important to have, more resolution into, what's going on with someone's physiology when you're prescribing any treatments. Right.

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Dr. Darshan Shah

And so so I'm really excited about bringing DUTCH hormone Testing into Next Health because it just gives us that, more longitudinal analysis over the course of a day. And then but also it gives us, kind of a three dimensional view across many systems into how everything is inter interrelated and the interplay between those systems.

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Dr. Jaclyn Smeaton

Yeah, there's a lot I want to break down about that, because I think especially on the role of cortisol, on all the systems of health, including reproductive health. But it's making me think about one of the things you said earlier when it comes to like that and of one medicine, and one of the things that I've really started to use the DUTCH Test for more often is actually predicting response and outcome to treatment and give you a just a couple of examples.

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Dr. Jaclyn Smeaton

When it comes to putting men on Testosterone, you can run a DUTCH Test first and see how they detoxify Testosterone and estrogen. What are their estrogen levels? Are they clearing it properly? And it really can tell you a lot about whether a man on Testosterone needs to also be on, you know, dam to clear estrogen or an aromatase inhibitor to prevent production and conversion.

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Dr. Jaclyn Smeaton

And you can almost see from that baseline pattern which men are going to have issues, which is really interesting.

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Dr. Darshan Shah

True. And like this is something that is not typically available, when you're just using blood Testing and I think it gives you the ability, number one to prevent side effects. But also number two is really optimize and dial in someone's treatment.

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Dr. Jaclyn Smeaton

Definitely.

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Dr. Darshan Shah

That's really helpful.

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Dr. Jaclyn Smeaton

Yeah. The other time I've seen is with women. I know more and more women are getting on Testosterone now. It's like it's the new hot thing. And we can tell also by how women metabolize androgens, who makes the most potent metabolites. So I think a lot of people don't realize that with androgens actually metabolites of of Testosterone are even stronger than Testosterone itself when it comes to intracellular activity.

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Dr. Jaclyn Smeaton

And kind of stimulating the person is, acne, hair loss, hair change thing. So it's really interesting because again, we could predict that which women would have a harder time with a standard dose of Testosterone, which is it's a fun way to be able to personalize even before they get out of therapy.

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Dr. Darshan Shah

Yeah. So that's why you know, a lot of these, online hormone clinics, for example. I mean, it's it's mind blowing to me that some of them don't even Test free Testosterone before they're putting people on Testosterone.

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Dr. Jaclyn Smeaton

Right.

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Dr. Darshan Shah

And, you know, you're really, creating a situation there. We can cause more problems than benefit in the the the sad part about it is these problems don't really manifest themselves until you've been on the treatment for a long time, and by then, it's sometimes it's hard to reverse the side effects that you've created. And so I think starting off with a really clear plan with deep Testing and then having markers to follow over time that that are deeper than the standard is, is should be the standard of care.

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Dr. Darshan Shah

It is not currently the standard of care, but I think it should be.

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Dr. Jaclyn Smeaton

I, I couldn't agree more. And I think the challenge, one challenge with that is just like economics and time. It's like, how do you how do you do this in a way that's scalable for a clinic and then like able to be done by the average person? And I mean, my hope is that in the long term, our health care system will recognize that this comparatively small investment in analytics early on would guide preventive strategies that would prevent them from dropping into your old clinic and surgery, surgical care later on in life or needing ongoing, you know, therapeutic intervention that's really expensive from a drug.

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Dr. Darshan Shah

I mean, the reality is, and, you know, I would say the reality is, is that people should get their blood Test, urine Tests done, in my view, quarterly. Like, I think that's when you have the most longitudinal data about what's happening in your biology. And then, and then you can follow trends over time as well. And so we really believe in quarterly Testing and next health, not for everything, but at least for the basic biomarkers and then if you know someone is on hormone replacement therapy, we're going to measure a deeper hormone panel every quarter as well.

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Dr. Darshan Shah

And you'll catch problems early. You can make modifications and really dial someone. And now, like you said, the economics of it, make it difficult for a lot of people. But what I've seen over the last, you know, ten years we've been running this business is the Testing. Pricing is coming down significantly, year over year. And, there will be a world where it would become economically feasible for people to get quarterly Testing.

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Dr. Jaclyn Smeaton

So I think that sounds really feasible. I mean, I look at like function and they've even lowered their price last year under the last year to like 365 a year. And again, this is like I tool getting the insights. But even if you only considered the cost to get the labs drawn, I'll just tell you I had, I went into my PCP and I had some labs that I wanted to

run for my wellness check.

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Dr. Jaclyn Smeaton

When it went through my insurance, my copay was over \$1,000. And it was it. Everything that was on that list was on function's list, and it was only about 20% of what was on that list of what was Tested. And it was like, why would I why don't I just go direct to consumer and get all this data here?

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Dr. Jaclyn Smeaton

But when you think about the ability of labs to be run, I mean, like \$400 even four times a year from an insurance perspective, it's like nothing compared to the cost of an intervention.

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Dr. Darshan Shah

That tells you how broken our insurance system is, that, you know, the co-pay in the whole amount that's even being billed is massive. And the one function can do it for \$369 for a massive panel. Then there's definitely something not right there. And it's in our insurance system. And the way the whole thing is built, it just needs to be reinvented.

00:25:41:16 - 00:26:00:10

Dr. Darshan Shah

Yeah, yeah. And so like, there's a world where everybody just gets a, you know, \$300 massive panel every year, and that informs so much better care than having to go to the doctor than pick the labs and then get charged, you know, thousands of dollars for this, for less labs.

00:26:00:12 - 00:26:06:08

Dr. Jaclyn Smeaton

You're right. I mean, even the visit to get the lab order is probably \$300 to your insurance company.

00:26:06:10 - 00:26:07:06

Dr. Darshan Shah

Right? Exactly.

00:26:07:09 - 00:26:08:20

Dr. Jaclyn Smeaton

Why not just skip that step?

00:26:08:22 - 00:26:42:22

DUTCH Podcast

We'll be right back with more. Join us this March at DUTCH Fest in Dallas, Texas, where you become the hormone expert. If you're a registered DUTCH provider, this is your invitation to three days of advanced hormone education, clinical insights, and hands on case study based learning from March 12th through 14th. Learn directly from founder Mark Neumann, doctor Jacqueline Smeaton and Doctor Carrie Jones as you dive into focus sessions, discover real clinical applications and explore practical Testing strategies you can use immediately.

00:26:43:00 - 00:27:02:09

DUTCH Podcast

The goal of DUTCH Fest is to learn how to interpret the DUTCH Test with speed, confidence and clarity. Spots are limited. Registered DUTCH providers secure your ticket now through your provider portal or by visiting [DUTCH fest.com](http://DUTCHfest.com). Welcome back to the DUTCH podcast.

00:27:02:11 - 00:27:17:14

Dr. Jaclyn Smeaton

I want to dive into it. I know this is an area that people are going to want to know more about, like from a leading clinic that's doing healthspan and longevity work. Can you talk through either the specific labs or the categories of labs, like what is part of this quarterly panel for the average patient?

00:27:17:16 - 00:27:46:17

Dr. Darshan Shah

So what we do is we have what's called a quarterly baseline panel. And this baseline panel has about 45, maybe 48 markers in it. The markers are related to metabolic health, cardiovascular health, inflammation, micronutrient levels, and nutrition in general. And then we're also Testing detoxification systems like liver, kidney and hormones. Right. And so we're doing more than just, you know, total Testosterone level.

00:27:46:21 - 00:28:17:10

Dr. Darshan Shah

We're diving a little bit deeper. And it's all through blood Testing. And I think most of the Tests that we do are not standard Tests that are being done at your physician's office, because these are Tests that don't really point to any particular pharmaceutical intervention. But they help us catch problems early. So, for example, we're using fasting insulin levels, triglycerides, hemoglobin A1, C to track metabolic health.

00:28:17:12 - 00:28:43:07

Dr. Darshan Shah

And we're big believers, as you know, everyone is probably that metabolic health is a foundation for overall health. And having poor metabolic health leads to a much higher incidence of, all the chronic diseases. And so our main goal is to prevent and and reverse chronic disease. So, we're always measuring metabolic health. We're measuring inflammation which has CRP, homocysteine levels.

00:28:43:09 - 00:29:13:04

Dr. Darshan Shah

And obviously we're doing cardiovascular health with apo b LP, little a, a full cholesterol panel as well. And these are all very good indicators of what's going on at the root cause level. So at the root level, inflammation, mitochondrial health, hormone dysregulation, metabolic disease is what leads to all of the other thousands. And thousands of main diseases out there.

00:29:13:09 - 00:29:22:02

Dr. Darshan Shah

And so we can really get down to the root causes and manage those and optimize those. We can avoid many diseases in the future.

00:29:22:04 - 00:29:42:23

Dr. Jaclyn Smeaton

I mean, I love hearing you describe that, and I love the way you describe, like, these are not things that would point to essentially a diagnosis and a pharmaceutical drug, because I think that's driven so much of the way modern medicines practice. Like if you look at metabolic health, for example, really we follow fasting glucose. But I mean, I think hemoglobin A1, C now is probably part of a routine screen for most clinics.

00:29:43:01 - 00:30:07:07

Dr. Jaclyn Smeaton

But when you look at the surrounding ecosystem of metabolic health, most

physicians are not ordering that. And it's because there is no need for it, quote unquote. If you can't see for like not on YouTube, if you're listening, there's no need to know that, because the only need is to know whether you're glucose, fasting glucose is 126 and whether you need to be put on, you know, a treatment.

00:30:07:09 - 00:30:20:12

Dr. Jaclyn Smeaton

I mean, maybe that's a little bit too harsh because I mean, they don't put people on metformin or something a little bit sooner, but really that that drive on decision making is I'm, I going to put a therapeutic in here versus what preventive action would I take.

00:30:20:13 - 00:30:32:07

Dr. Darshan Shah

And you'd be surprised. You know, a lot of people bring their labs from their doctors to us. And they say, you know, I don't need to get your baseline because I really got all my labs into my doctor. And when you look at the all my labs, you know, and air quotes, it's.

00:30:32:07 - 00:30:33:15

Dr. Jaclyn Smeaton

Like TSA, it's.

00:30:33:17 - 00:30:36:12

Dr. Darshan Shah

It's not even a TSA. It's just a CBC in a profile.

00:30:36:12 - 00:30:39:17

Dr. Jaclyn Smeaton

Okay. Yeah. You do your analysis, but no.

00:30:39:19 - 00:30:59:18

Dr. Darshan Shah

Yeah. And in your analysis. Right. But this is what I ordered for decades as a traditional Western medicine doctor, when someone would come in, you get a CBC, a chemistry profile and a urinalysis. And those don't have a hemoglobin A1. See, most of the time. And so you're right, more and more primary care doctors are checking hemoglobin A20.

00:30:59:18 - 00:31:23:19

Dr. Darshan Shah

But you and I both know that that is a lagging indicator. Right. Like health disturbances when your hemoglobin A1 C is finally affected and it starts going up, you've already probably been developing insulin resistance now for over a decade. And so you want to catch it much sooner. And this and the best blood work for catching any metabolic health deficiencies sooner is going to be your fasting insulin level.

00:31:23:21 - 00:31:31:18

Dr. Darshan Shah

And I never see a fasting insulin, especially not preventatively. That's yeah, for when someone has already been diagnosed with diabetes, you know.

00:31:31:19 - 00:31:44:22

Dr. Jaclyn Smeaton

Totally. Well. And then let's add a layer to this conversation. Because I think when you look at lab normals, that's the other challenge is if you're not specially trained like fasting insulin, what's your target for like someone to say someone's in good metabolic health like under five.

00:31:45:00 - 00:31:46:04

Dr. Darshan Shah

Under five is my target.

00:31:46:07 - 00:32:04:04

Dr. Jaclyn Smeaton

Okay. So but then what does a normal lab say. Like under 12. Under you know, under 20 okay. So the lab that you use. So I mean that's another challenge is even if you get a well-intended physician to order fasting insulin, they're responsive to their patient's request. They're going to look at a ten or a 15 or an 18 and say you're in the normal range.

00:32:04:04 - 00:32:16:10

Dr. Jaclyn Smeaton

Things look good. So there is this added layer of complexity and challenge when it comes to that interpretation that even if we can get behavior change in the medical space, there's still a learning curve to it.

00:32:16:12 - 00:32:32:15

Dr. Darshan Shah

I think there's a little bit of gamification involved there, too, for patients, because all it takes is one conversation to let them know, like, hey, you know, your metabolic health is really doing pretty good. However, the best fasting insulin I've seen is for.

00:32:32:17 - 00:32:33:03

You know.

00:32:33:05 - 00:32:36:21

Dr. Jaclyn Smeaton

They work with these like high achieving type executor that someone's.

00:32:36:23 - 00:32:37:14

DUTCH Podcast

You know, well.

00:32:37:15 - 00:32:55:03

Dr. Darshan Shah

How do I get to it for it. You know, I think you start doing continuous glucose monitor and watching your carbs and all those things. And so I think, you know, I think it helps some people, certain mindsets, like you said, like type A individuals that are really wanting to optimize every number. But not everyone needs to do that.

00:32:55:03 - 00:33:04:15

Dr. Darshan Shah

But I think it is important to educate our patients so that they can make the decision about what they want to optimize and how and how important it is in their day to day life.

00:33:04:17 - 00:33:10:01

Dr. Jaclyn Smeaton

What are the biggest concerns people come into the clinic with? Is it like cognitive health, cardiovascular protection?

00:33:10:03 - 00:33:34:00

Dr. Darshan Shah

You know what? I'll tell you that the number one concern that people have and, it's

not a medical diagnosis, is they know there's more out there and they're not getting it from their typical, doctor visits. They know that there is a world that they can, be healthier, and they also don't want to be blindsided by a diagnosis in the future that requires a pharmaceutical intervention.

00:33:34:01 - 00:33:47:04

Dr. Darshan Shah

And so, I think it's more I think the number one thing people come in for is knowledge. Knowledge about their own bodies, knowledge about what's optimal, knowledge about how they can know what's going on under the hood of their health.

00:33:47:06 - 00:33:56:23

Dr. Jaclyn Smeaton

I love that, I mean, that's a truly proactive strategy. It's not like I have pain, I have fatigue, it's even pre that, initial early symptom picture that they're coming in.

00:33:57:01 - 00:34:21:11

Dr. Darshan Shah

Yeah. And you know, a lot of people come in with no symptoms and that's great. Like we want to we want to start checking when you have no symptoms. Because by the time you develop a symptom, it's sometimes hard to turn around. Right. And so yeah, that being said, you know, a lot of people come in with gut health issues, brain fog, energy levels being low is a huge problem.

00:34:21:12 - 00:34:39:22

Dr. Darshan Shah

Fatigue, in, you know, I think all of those are just ignored until, we actually get a diagnosis in the typical world. And now people don't want to ignore those types of feelings. They want to do something about it because they know there's a world where they can live with more energy and more vitality.

00:34:40:00 - 00:34:57:10

Dr. Jaclyn Smeaton

I love that, and I love that the quarterly baseline. I'm such a big fan of baseline Labs. Like I normally I work with women in their 30s, 40s, 50 zone predominantly, and I love for them to get very complete assessment as early as possible, even earlier than 40s, if possible, because you want to know what optimal looks like for you.

00:34:57:10 - 00:35:16:08

Dr. Jaclyn Smeaton

You don't want to be Tested when you're sick. And I think about I use the example of thyroid like the range for thyroid. Let's say it's point 5 to 4 is considered normal with labs. If you come in and you're like a 1.9, a lot of women don't feel good there. And it's because maybe when they were in their 20s, they're a point five or a point six and that was their normal.

00:35:16:08 - 00:35:32:13

Dr. Jaclyn Smeaton

And I tell my patients, it's like your shoe size, right? The average, the normal shoe size for a woman, let's say it's a five to a ten. I'm sorry if you're outside that range. I don't mean to be excluding anybody that's listening, but if you are a size six foot in a size nine shoe, it's not a fit.

00:35:32:13 - 00:35:52:19

Dr. Jaclyn Smeaton

Right? And likewise, if you're a, you know, at 8.5 and you're trying to squeeze your foot into a size six, you're going to feel pretty terrible, even though you're still in the normal range. And I think my patients get that a lot. It's and it makes sense. It's like, this is why you need to know how things are changing over time and not just be dismissed for being within the normal range, because the normal range is just so broad for most of these parameters.

00:35:52:21 - 00:36:10:13

Dr. Darshan Shah

I'm so glad you mentioned that, because it also brings up another point is we have a lot of patients that come in and they're like, oh, I don't need my blood work done. I feel amazing, I'm in the best shape I've ever been. I feel just great. I'm like, this is exactly the time that we want to know what your numbers show, so we know what your TSA is at this moment in time.

00:36:10:13 - 00:36:29:06

Dr. Darshan Shah

We know what your Testosterone is. We know what your numbers are when you are feeling really, really good. So later when you don't feel good or these numbers change, we know what we need to aim for. And so it's important you know, people ask like at what age I get my blood work done. I'm like even 21. Make sense?

00:36:29:06 - 00:36:34:18

Dr. Darshan Shah

25 get it when you're feeling good. So we know what those numbers look like.

00:36:34:19 - 00:36:54:13

Dr. Jaclyn Smeaton

Well, I want to shift gears and kind of hone in and focus in on hormones a little bit more. And I want to start with one that probably people wouldn't suspect, which is cortisol. Because I really, you see, especially with your patient population, high functioning, high achieving people, we all carry a burden of stress. Yeah, right. Some historical, some modern day.

00:36:54:15 - 00:37:00:19

Dr. Jaclyn Smeaton

Tell me a little bit about the role that you see stress play in your patient's health and how it shows up in Testing.

00:37:00:21 - 00:37:21:18

Dr. Darshan Shah

Well, what I would say is that, people have stress in their life, right? And what I try to do is try to normalize that. It is normal to have stress in your day to day life. And but the problem with stress is that when you let it build up to it, causing physiological damage. And so what does that look like?

00:37:21:20 - 00:37:48:16

Dr. Darshan Shah

Physiological damage from stress looks like first and foremost we see autonomic dysregulation. And that manifests itself as a problem with your HIV levels. Right. And so with the people just living in a state of being sympathetic all the time and never giving themselves time in the parasympathetic zone, when you live in that for more than 30 to 45 minutes, that leads to a release of cortisol, right.

00:37:48:18 - 00:38:19:04

Dr. Darshan Shah

And when you're at a level of cortisol that is higher than what your baseline is at a parasympathetic state, but then you stay there, then that becomes your new normal. And if that becomes your new normal, the next time you do add a little bit of stress, then you go even higher and then you go even higher. And I try to explain this whole kind of, sequence of events to people so they understand the importance of building in breaks throughout their day, building in time to be parasympathetic throughout

their day.

00:38:19:09 - 00:38:39:00

Dr. Darshan Shah

And there's lots of different ways to do that, obviously. But, it's a massive problem because once again, you know, hyper cortisol anemia and live leading into parasympathetic and sympathetic dysregulation and having poor HRT, all of that is another root cause of chronic disease.

00:38:39:02 - 00:38:55:21

Dr. Jaclyn Smeaton

Well, I want you to dive into a bit more of your open to that, because I think that's a marker that, like most of us can access if you're using a wearable. But I think out of all the things that are measured, it has the least understanding. Can you talk a little bit more about heart rate variability and like what it means and how you how you use it clinically?

00:38:56:03 - 00:39:18:00

Dr. Darshan Shah

Yeah. So, you know, just kind of describing heart rate variability to someone who's never heard it. I always say I always start off mean telling people is very simply the timing between heartbeats and the time in between heartbeats is regulated by your nervous system. And there's two nervous systems that we have. They're actually at play influencing the timing between heartbeats.

00:39:18:02 - 00:39:52:19

Dr. Darshan Shah

That is a sympathetic nervous system that wants our nervous, that wants our heartbeat to be very regular, and our parasympathetic nervous system that wants to our heartbeat to slow down. And those nervous systems are always kind of inter playing. And you get millisecond differences between heartbeats and the counterintuitive idea here is that the more variability that there is in the time in between your heartbeats, the better that your nervous systems are interacting because they really are able to play against each other.

00:39:52:23 - 00:40:28:15

Dr. Darshan Shah

So you want a higher HIV, not a low HIV. And RB variability, quite simply, is just the interplay between your sympathetic and parasympathetic nervous systems. And you

want to aim for more time in the parasympathetic state so that you have better and higher numbers in your HIV. And, it's a great master. I would say master number that you can look at on a day to day basis, using like a wearable to really understand how is my body doing, you know, how am I doing?

00:40:28:17 - 00:40:46:01

Dr. Darshan Shah

And a lot of times when you ask people like, how are you doing? They're going based on their symptoms, but symptoms are such a lagging indicator, if anything's really going on, whereas HIV can tell you decades prior to you getting some symptoms, about how your body's doing.

00:40:46:03 - 00:41:07:10

Dr. Jaclyn Smeaton

I love that description. I'm going to utilize that, if that's okay. If you hadn't, that's such a great way to explain it. And it's really interesting because we always talk about like leading indicators and lagging indicators and businesses and health care, etc. it's definitely a concept that resonates with a lot of people. And when we look at cortisol changes, I was talking about this like literally on the phone on my way to the studio with one of our other docs on the team.

00:41:07:12 - 00:41:30:14

Dr. Jaclyn Smeaton

It seems as though culturally like in integrative and functional medicine, we need to revamp the way we talk about cortisol and stress, and even assessment. That's one thing that I've really become very passionate about it, because when I was first in practice, I did salivary cortisol curve, which is a free cortisol diurnal pattern. And I think now about how many problems I missed by only looking at that.

00:41:30:14 - 00:41:51:05

Dr. Jaclyn Smeaton

And but I was talking about with Doctor Smith. Is that there. That is the last thing to change when it comes to stress. Like we see so many other patterns, we see cortisol metabolism change, we see the shift to cortisone change and we measure all these on the Test because we do urine metabolites as well. And I just think about oh and the car let's not forget the car.

00:41:51:05 - 00:42:18:13

Dr. Jaclyn Smeaton

The cortisol awakening response. The diurnal pattern is the last thing to change on the road to dysfunction when it comes to the autonomic nervous system that if you're only looking at it as a provider, you're probably missing that opportunity to do early intervention. I would add to that category of like early leading indicators that I really want to put that together in a way that we can talk about more comprehensively, because I think that's something that we just don't do very well as an integrative medicine group.

00:42:18:13 - 00:42:22:16

Dr. Jaclyn Smeaton

It's like the toughest area for clinicians to work on with their patients.

00:42:22:18 - 00:42:43:02

Dr. Darshan Shah

Yeah, it's so true. And you know, we all know that stress is a massive influencer in our overall health, across every single body system. Right. But all we have to look at traditionally to it is figure out how much of a factor it is in our patients. Health is like cortisol levels, right. And so.

00:42:43:04 - 00:42:44:19

Dr. Jaclyn Smeaton

Am serum cortisol.

00:42:44:20 - 00:43:03:02

Dr. Darshan Shah

Am what is all right. And like you said, it's one of the last things. It's like using hemoglobin A1. See to see if someone has metabolic healthy. Well that's the last thing that's going to change. Right. You want to catch us decades ahead of time. And finally we have and you can argue about the accuracy of it. And you can argue about, you know, a lot of things about HIV.

00:43:03:02 - 00:43:40:02

Dr. Darshan Shah

But what I can tell you is that in real clinical practice, HIV is an excellent, excellent, preventative indicator for stress becoming an issue in your life later on. And so if you're actively managing your HIV, when, like now, but as soon as possible before waiting for your cortisol curves to show, you know, to show some dysregulation, you're going to you're going to way, way be ahead of the game as far as preventing problems with with stress affecting your your physiology, your disease risk, all of that.

00:43:40:04 - 00:43:57:17

Dr. Jaclyn Smeaton

Yeah. You're lighting a fire in me with this one for sure. And I think the other thing that's so interesting is that so many clients and I can resonate this myself, speak personally about it like we have a high tolerance for stress. Yes. And so if you ask if you asked me how's your stress level, I'd be like, it's fine, it's good.

00:43:57:23 - 00:44:19:22

Dr. Jaclyn Smeaton

You know, five kids, working mom like juggling household, all that stuff. There's so much happening in my life, but it's under control. I'm not feeling like pain. There's always stress. There's a lot going on. But when you have these other metrics that can be monitored. Yeah, it cuts through. It cuts through the like emotional component of how much we think we can tolerate.

00:44:20:00 - 00:44:22:00

Dr. Jaclyn Smeaton

And I really, really like that.

00:44:22:01 - 00:44:48:01

Dr. Darshan Shah

Yeah. It's it's really it's so true. I mean, you know, humans are resilient. We're such resilient beings, especially to stress. You know, humans have lived stress since then, since we became humans. Right. And, we rely on stress to create appropriate physiological responses. Unfortunately, in the last, you know, 80 years, we've manufactured so many more ways to live in a constant state of stress that it's adding to real physiological damage.

00:44:48:03 - 00:45:21:16

Dr. Darshan Shah

And, understanding how much our body is stressed, how much we can affect it way before we have symptoms or problems is so critical. I'm really excited also about, you know, other wearables like, devices that can measure, sweat levels of cortisol, for example, on a continuous basis, like, yeah, continuous glucose monitors. I think tools like that are just going to give us more, data and more clarity into what's really happening.

00:45:21:18 - 00:45:43:01

Dr. Jaclyn Smeaton

Yeah, that'd be really interesting. I mean, the, the way we can measure the expansion and what we can measure is it's transforming, which is so exciting. So I want to shift gears and talk a little about reproductive hormone levels as well. When you think about your clients that are coming into you for longevity and healthspan, why is it important to take a look at a woman's cycle or her perimenopausal menopausal transition?

00:45:43:01 - 00:45:46:17

Dr. Jaclyn Smeaton

Or for men, Testosterone and those other reproductive hormones?

00:45:46:19 - 00:46:18:18

Dr. Darshan Shah

So what I can tell you is that, unfortunately, we have this kind of wall of understanding that was created by the Women's Health Initiative study and also, you know, studies around Testosterone and heart disease that permeated through society over the last few decades that created this almost, irrational fear of hormone replacement therapy. To the point where, you know, I think I heard Peter describe this on 60 minutes a few weeks ago as being criminal.

00:46:18:20 - 00:46:20:04

Dr. Darshan Shah

And it was.

00:46:20:06 - 00:46:24:13

Dr. Jaclyn Smeaton

I think he called it, the biggest mistake has ever been made in medicine or something like that.

00:46:24:13 - 00:46:26:00

Dr. Darshan Shah

I've really it's something.

00:46:26:02 - 00:46:26:23

Dr. Jaclyn Smeaton

That.

00:46:27:01 - 00:47:11:11

Dr. Darshan Shah

I think if you truly understand what we've missed over the last, you know, 50 years, it's really sad, right? Because we we'd be so far ahead of the game right now. And so we know that Testosterone and estrogen, are hormones of longevity. They lead to incredibly beneficial consequences when normalized for both men and women. Right. And so I think that obviously Testing it is important, but also not having a fear of creating a situation where, your hormones are normalized later on in life.

00:47:11:13 - 00:47:32:04

Dr. Darshan Shah

The reality situation is, are, you know, we're living a lot longer as humans. And our glands that produce these hormones are get exhausted over time, just like our mitochondria gets exhausted, just like our growth hormone gets exhausted over time. Like we're just living longer. As humans, we weren't built to create hormones for as long as we're living. But guess what?

00:47:32:06 - 00:47:56:08

Dr. Darshan Shah

We have modern technology that we can now replace these hormones, and there's different ways of doing it. We can encourage our own natural production, to a certain degree. And when that doesn't work, we can replace. And when you replace, you avoid all sorts of chronic diseases and you actually live a better and fuller life. And so this can be done very safely with good practitioners that really know what they're doing and understand the Testing.

00:47:56:08 - 00:48:17:21

Dr. Darshan Shah

And with further like three dimensional assessments, like the DUTCH Test, we can really do this with, incredible accuracy, safety and, and be able to create a situation where people are living their most vital lives. Right. And so I'm excited about it, and I'm excited about turning the narrative. I'm excited about, people having more access to information.

00:48:17:23 - 00:48:35:09

Dr. Darshan Shah

But the reality is we still have a wall of knowledge, of lack of knowledge in the medical community where, all the doctors that have been educated back in the 80s, when I was educated in medicine, we were taught that, you know, hormone replacement therapy is the devil.

00:48:35:11 - 00:48:50:12

Dr. Jaclyn Smeaton

That's right. Yeah, yeah. I mean, the way I came out when I was a medical student. So, I mean, I was just starting my clinical, so same thing. It was like my gynecologist was like cutting edge information. Look at that. So definitely it's hard to get reeducated on it if you're in.

00:48:50:14 - 00:49:20:03

Dr. Darshan Shah

A lot of doctors got a lot of doctors got sued for causing cancers and so many things because of, you know, prescribing hormone therapy. And a lot of doctors even got their licenses taken away for continuing to prescribe hormone therapy despite, the Women's Health Initiative, study. And, you know, it's so traumatic. Right. And, you know, back in the 80s, you grew up in a situation where the biggest thing that you feared as being a doctor was getting sued, right?

00:49:20:05 - 00:49:30:03

Dr. Darshan Shah

It just created so much anxiety over having to defend yourself in a lawsuit that there was no way doctors to prescribe hormone replacement.

00:49:30:06 - 00:49:46:17

Dr. Jaclyn Smeaton

Totally. I mean, it's like your whole identity is wrapped up in providing care. The last thing you want is like the, you know, the stress, but more of the shame or the consideration that you might have harmed a patient. The same with your colleagues. The shame of not, you know, doing that first, you know, harm that you really set out to do.

00:49:46:19 - 00:50:05:13

Dr. Jaclyn Smeaton

You know, you're getting me thinking about that time frame, which Amy Kaelin just put out, Substack, where she talked about, like, do you remember those energetics ads? She said, I was like, at an airline magazine, and I exactly saw that same ad in a magazine, like in the 90s with the, the guy, the founder who was like, really, really jacked bald guy, older guy.

00:50:05:15 - 00:50:28:16

Dr. Jaclyn Smeaton

And that during that time, if that if you could brand hormone therapy, that was the brand. And it was so different from like every day you and me, which I think really slowed the uptake of that or that transition. I mean, there was research data, but there was also this kind of brand image that had to be overcome where hormone therapy was not about looking like that.

00:50:28:18 - 00:50:32:22

Dr. Darshan Shah

Yeah. Yeah. So I trained instead of genetics back in the.

00:50:33:00 - 00:50:45:12

Dr. Jaclyn Smeaton

I mean, obviously it was so attractive to like think about reversing the clock, but I do I just have that picture in my head of that time of the only people doing hormone therapy were people who were looking at that type of building. It's not a dig at all.

00:50:45:18 - 00:51:15:15

Dr. Darshan Shah

No. I mean, look, Alan Mintz founded and Gen X, and he was a radiologist, and he sold his radiology company, and he got really into growth hormone replacement. And, I think it's a really good example of medicine kind of taking to, to too far. Right. And so, just like Testosterone therapy and bodybuilders, there is the, the temptation of, wow, I feel so good.

00:51:15:15 - 00:51:38:18

Dr. Darshan Shah

I need more and more and more of this. Right. And, you know, Alan Mintz and I think there was another orthopedic surgeon, the one that you're talking about, the bald guy with the big muscles in the airline. Yes. Yeah. So so, you know, they did a lot of IGF and they were just taking straight growth hormone, and they were really taking it to, a level that was super, super physiologic.

00:51:38:20 - 00:51:55:21

Dr. Darshan Shah

And I think what you and I are talking about is not super physiology. We're talking about just, you know, avoiding complications and just being optimized. And when, when are we the most optimized? Probably in our 20s, right in our late 20s. And just aiming for those levels, I think is a good way to do it.

00:51:55:23 - 00:52:11:16

Dr. Jaclyn Smeaton

Yeah. My point is that that was kind of like the devil look of that. Yeah, of what it's like when people said, oh, you don't do hormone therapy. That's only for the like, that's, you know, wild card. Yeah. Those are the cowboys that are out there doing it. But it's great that it's been kind of brought back in to everyday care.

00:52:11:16 - 00:52:29:10

Dr. Jaclyn Smeaton

And it's also slow, slow when I think about all of the generations of women that have been women in particular, who've been denied hormone therapy during that period of time, that we don't have a lot of good solutions for, unfortunately, because there is some risk with getting back on after a period of time that you have not had natural production.

00:52:29:10 - 00:52:53:04

Dr. Darshan Shah

So when I think about my mom, who's eight inches, shorter than when I first met her, and she's had every joint in her body replaced, right. And that's because her doctors told her that hormone replacement therapy was dangerous, will cause breast cancer. And, she never did it. And now, you know, she's suffering all the consequences. And by the way, she's on medications for diabetes and high blood pressure and all of that stuff.

00:52:53:04 - 00:52:53:21

Dr. Darshan Shah

So.

00:52:53:23 - 00:53:13:09

Dr. Jaclyn Smeaton

Yeah, hopefully we can prevent that for the next generation. So tell us a little bit when it comes to hormone therapy, like you obviously work with this for women and men in a more moderate fashion than what we were talking about before. But there's a lot of other therapies that can be layered on. I'd love to just hear your thoughts on, like, what are you using in the clinic?

00:53:13:09 - 00:53:23:13

Dr. Jaclyn Smeaton

What is the trending things? We have stem cell therapy, we have peptides. We have all these things that people are asking about. What are the things that you have found to be most impactful so far?

00:53:23:15 - 00:53:33:05

Dr. Darshan Shah

So, you know, I think another leg of the stool of, just root cause management that doesn't get enough of our time is our level of toxic exposure right now.

00:53:33:05 - 00:53:36:09

Dr. Jaclyn Smeaton

Oh, I'm so glad to bring this up. Thank you for raising it.

00:53:36:14 - 00:54:01:09

Dr. Darshan Shah

Yeah. We have to continually talk about this because it's so invisible, right? I mean, it's in our air, our water, our food, our skincare products, and it's just invisible. And and we don't know, even with lab Testing, we don't know the damage this is causing and is leading to damage in every organ system and every and, on a day to day basis for all of us.

00:54:01:09 - 00:54:27:15

Dr. Darshan Shah

And so, I like to do a lot of education around, toxin exposure. We do use a urine, Test for toxins through vybe in America measuring, you know, 85 different environmental toxins. And we can also talk about mold, toxins and Lyme disease and, you know, some of these other, indolent infections that people don't know that they're exposed to or suffering from.

00:54:27:17 - 00:54:44:00

Dr. Darshan Shah

And, what we're finding is that we're doing a lot of work around detoxification. And one of the one of the treatments that we brought out of the hospital into more routine care is called plasma exchange. Have you heard of plasma exchanges?

00:54:44:00 - 00:54:45:06

Dr. Jaclyn Smeaton

Yeah, yeah, yeah, yeah.

00:54:45:07 - 00:55:08:22

Dr. Darshan Shah

So we're doing a lot of plasma exchange. We did over 500 last year, and we'll probably do double that this year. And that's because, we found it to really, truly, significantly affect, people's toxin levels. And by measuring before and after, urine toxin screens and, obviously we're doing it as like giving the body a chance to catch up.

00:55:09:00 - 00:55:29:01

Dr. Darshan Shah

And it gives people a temporary kind of guess, like an oil change for your body where we eliminate all the toxins that's accumulated in the plasma and also replace the albumin. So there'll be a link and go back into the body. New albumin can go back into the body and bind the toxins throughout the organ systems. And we find significant reductions.

00:55:29:01 - 00:55:53:02

Dr. Darshan Shah

And then simultaneously we're reducing exposure. We're reducing all sorts of exposure, in their skincare products. And they're in their water, you know, not drinking out of plastic bottles, filtering their water, filtering their air, all of it. And that's kind of a, a program that we put into place. It's really, I think, moving significantly people's risk of chronic disease.

00:55:53:04 - 00:56:11:13

Dr. Jaclyn Smeaton

Do you guys measure get on your quarterly panel. Yes. Yeah. I mean, that's such a great marker. Like I said, it's a liver and really sensitive like liver enzyme that has so much data. For those of you listening so much data on the level of exposure to toxins, it's one of the first things to respond to toxins. And it's a little bit more of a general marker.

00:56:11:13 - 00:56:24:12

Dr. Jaclyn Smeaton

But even in the normal range, if you're in the high end of the normal range, it's probably a problem for you. It's really interesting. I don't know if you know Joe Pacino's work, but he's on tons of data on this. Are you familiar with Doctor Prisoner? No, no, no. Oh my gosh, I'd love to make a introduction for you guys.

00:56:24:12 - 00:56:47:04

Dr. Jaclyn Smeaton

He's he was the founder of Year Universities A Natural path. But yeah he's done a lot like he created one of the first AI tools, you know, 15 years ago probably to consolidate all the literature and like pull in lab values and publish and really early leading. But his whole work lately he has a consumer facing book called The Toxin Solution, which is a great, great one to add to your bookshelf in the clinic.

00:56:47:06 - 00:57:28:07

Dr. Jaclyn Smeaton

But, his whole maybe last 20 years has been committed to looking at toxin research. He's based in Seattle, but he worked with this Canadian, I think it was an automobile dealer association or some kind of, like, mechanical related group. And they took everybody in the pool, and he took the highest quartile of, like, heart disease, like traditional metabolic and cardiovascular markers, Tested them and compared them to the group with the healthiest cardiovascular markers and found that actually, the toxin level was a more impactful indicator of cardiovascular health than even diet, lifestyle, stress, etc. just was kind of missed.

00:57:28:09 - 00:57:46:19

Dr. Jaclyn Smeaton

And then he's done a lot of work on detox programs and stuff like that to bring people down. Anyway, he has a great the toxin solution, but one thing that's nice about it for you as you're listening, it has an appendix that he has summarize all of the different markers in the blood that can indicate toxicity. And he has like a scoring system like platelet count, CGT, bilirubin.

00:57:46:19 - 00:57:53:18

Dr. Jaclyn Smeaton

There's all these other markers that are on that list and you may have a look at it. It's definitely worth it's a great book. Scientific.

00:57:53:20 - 00:58:15:23

Dr. Darshan Shah

Yeah. Oh sorry sorry. No no no. Going back to, alcohol. GT is an excellent marker of how much you're drinking, you know, and so, AST and alt, the other two liver markers, you have to do a lot of damage before they change, but GT can really just change. Even like week to week based on your level of alcohol consumption.

00:58:15:23 - 00:58:28:14

Dr. Darshan Shah

And so when I try to get a lot of people to do during dry, January is at the end of the month, measure their GT, and then every quarter when we do a quarterly blood Test, let's see where you're at. And let's yeah, let's say how much have you been accumulating? You know, it's.

00:58:28:14 - 00:58:31:08

Dr. Jaclyn Smeaton

An honesty keeper. It's like a keeper right?

00:58:31:08 - 00:58:32:15

Dr. Darshan Shah

Yeah, exactly.

00:58:32:18 - 00:58:43:03

Dr. Jaclyn Smeaton

I mean it is so important. I mean, you look at like the nonalcoholic fatty liver disease on top of fatty liver disease, like, there's so much that's contributing to that. And that's becoming kind of a new epidemic that we're really having to be aware of.

00:58:43:05 - 00:59:11:14

Dr. Darshan Shah

We do a fiber scan, liver scan on people, at our clinics as well. This is a fantastic ultrasound scan of people's liver that tells us how much fibrosis you have, which is due to toxins and how much fatty liver disease, which is usually due to metabolic, health abnormalities and also alcohol. And once again, it's tells you way, way sooner than, even changes in your blood Test, how much liver damage you're doing with your lifestyle.

00:59:11:16 - 00:59:26:21

Dr. Darshan Shah

And, you know, just one of my really close friends, I made him do this. He just came to the clinic with me one day. Just to check it out, and we found he had a lot of fatty liver disease, and we, you know, went down the rabbit hole on that. But these kind of Tests can save your life.

00:59:26:21 - 00:59:31:05

Dr. Darshan Shah

You know, and it's very important that people know what they are and have access to

them.

00:59:31:07 - 00:59:56:04

Dr. Jaclyn Smeaton

Well, what's really exciting to me about our conversation today is that when we look at medicine, obviously there's this focus on early intervention and prevention. And I think prevention has traditionally been early detection when it comes to like pap smears, for example. That's how we consider prevention of cervical cancer. It's not from a root cause perspective. It's early early detection mammograms for breast cancer, etc..

00:59:56:04 - 01:00:17:12

Dr. Jaclyn Smeaton

And I think you guys have brought this to the next level with looking at clinically validated tools that can recognize kind of macro and micro trends that show up even before those other changes of the early detection. So which is a very exciting place to be headed in medicine. So I know it's not easy to be covering a path like that, but I'm certainly grateful to you and your team for the work that you're doing on that.

01:00:17:14 - 01:00:43:06

Dr. Darshan Shah

I really appreciate you saying that. Yeah, I like to talk about preventative medicine a lot, too. You know, preventative medicine. We grew up in, doing things like colonoscopies, pap smears. Right. And those are fantastic. But like you said, those are for disease detection. You're not really preventing preventing disease. What you're doing is preventing a disease from getting out of control.

01:00:43:06 - 01:01:01:00

Dr. Darshan Shah

And costing the health care system too much money. And the reason I say that is because the preventative medicine Tests that we have made available to us through insurance are they're based on population based studies that if we Test the population, we'll save a lot of money on the back end, making sure we don't have to be restricting colon cancers.

01:01:01:05 - 01:01:25:03

Dr. Darshan Shah

So let's make sure people are getting colonoscopies early on in life. But the reality is you're not really preventing anything. What you're doing is just early diagnostics of an

actual disease process that is already taking place before it gets out of control. True preventative medicine, which I like to call hyper preventative medicine, is mitigating the root causes of diseases.

01:01:25:03 - 01:01:43:04

Dr. Darshan Shah

So you never get a disease in the first place. And that's what we've been talking about here all day today. What that involves is, number one, obviously getting your metabolic health and your nutrition in order. Number two, making sure you're sleeping well. And by that doesn't just mean getting seven hours a sleep. It means making sure you're getting enough deep sleep.

01:01:43:04 - 01:02:01:07

Dr. Darshan Shah

And so a wearable is going to tell you that, understanding how much movement you have throughout your day and not just exercising, like going to the gym, doesn't mean that you're doing enough. You have to be moving throughout the day with micro bursts of movement and getting enough steps in detoxifying your life like we've been talking about.

01:02:01:12 - 01:02:25:12

Dr. Darshan Shah

That's another root cause, critical factor. And then once you hit your 30s, or sometimes even for people earlier, is getting your hormones in order. And I think once you start doing all of those five kind of root causes, managing those root, those basics of health, you can avoid all the diseases, in the future. And then that's true hyper preventative medicine.

01:02:25:14 - 01:02:29:05

Dr. Darshan Shah

And I think that kind of like puts a bull around our entire conversation. There is.

01:02:29:05 - 01:02:35:01

Dr. Jaclyn Smeaton

Thank you for wrapping that for me. I mean, goodbye, my job.

01:02:35:03 - 01:02:35:11

Dr. Darshan Shah

Yeah.

01:02:35:13 - 01:02:36:16

Dr. Jaclyn Smeaton

Yeah. Absolutely.

01:02:36:17 - 01:02:38:01

Dr. Darshan Shah

Yeah.

01:02:38:03 - 01:02:53:07

Dr. Jaclyn Smeaton

Absolutely. Well I really appreciate your joining us Doctor Shah on the pod again today. Certainly if you guys are interested in this type of care, our conversation actually a year ago is quite different. So take a look at that episode. Have a listen. A lot's changed in that time with what you guys are doing at Next Health.

01:02:53:09 - 01:03:08:16

Dr. Jaclyn Smeaton

I'm you've grown a lot. But also we talked a lot more about the system and kind of some of the barriers, to this type of medicine being adopted, which I think is its own really interesting conversation. So anyway, I really appreciate appreciate your time. I'm so glad you're able to join me today and all of you listening.

01:03:08:21 - 01:03:18:21

Dr. Jaclyn Smeaton

Thanks for joining. We launch a new episode every Tuesday, so be sure to follow us and subscribe so that you can catch every single juicy episode just like this one. Thank you so much. Have a great week.

01:03:18:23 - 01:03:21:21

Dr. Darshan Shah

Thank you for having me.

01:03:21:23 - 01:03:34:14

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