Episode 121 Transcript

Dr. Jaclyn Smeaton (00:06.968)

Welcome to the DUTCH podcast where we dive deep into the science of hormones, wellness and personalized healthcare. I'm Dr. 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 healthcare professional or simply looking to optimize your own wellbeing, we've got you covered. The contents of this podcast are for educational and informational purposes only.

The information is not to be interpreted as or mistaken for medical advice. Consult your healthcare provider for medical advice, diagnosis or treatment. Welcome to this week's episode of the DUTCH podcast. This week, we talk to one of the really first experts in longevity medicine. And the conversation is super interesting because his perspective is across decades of practice. So when we talk about things like hormones, he was in practice when hormones were all the rage for postmenopausal women.

And then when the WHI was published and there was this stark drop in use, and now to see them kind of coming back up in popularity and need. And so there's this really interesting thread that binds where longevity medicine, anti-aging medicine, functional medicine, they've changed so much since the 1980s, 90s to where we are today. And really he's been at the forefront of this in his own practice for so long.

So we talk a lot about hormones, but also we talk about what's coming next in longevity medicine, what's most exciting, what's working the best for the patients in his clinic, and where he thinks the rock stars are gonna be in the future. So I really wanna introduce you to today's guest. Today's guest is Dr. Chris Renna. He graduated cum laude from the University of North Texas Health Science Center, and then completed a residency in family medicine after earning his degree from University of Texas.

But quickly, after just a couple years in practice, Dr. Renner realized that that traditional medical training was focused solely on diagnosing disease and getting people on a prescription management. In fact, he felt very disillusioned that the patients weren't getting better. They just came back in for more refills and refills. So rather than really focus on that traditional model, he

wanted a model that really worked to create health amongst his patients. So he founded his practice, Lifespan Medicine, in 1992.

Dr. Jaclyn Smeaton (02:25.806)

Now what were you guys doing in 1992? He was already at the forefront of this. And really established that practice to deliver personalized preventive medicine through concierge support and comprehensive evaluations. This practice is still there today, really quite a large practice centering on optimizing health with that patient first philosophy. Everything is about the patient and their health optimization. Really, really cool conversation. Let's go ahead and dive in.

So I'm so glad that you're here with me, Dr. Rana. Thanks so much for joining me.

You're welcome. It's pleasure.

Now, I want to start because you have a really interesting backstory from my point of view, because you're trained as a conventional physician. But you moved into longevity medicine back before it was really a thing, or real popular movement, where I think now more of us are exposed to it. But you really started your practice, it was back in early 1990s. So I'm really curious why and how you made that shift from traditional family medicine to really

creating that innovative lifespan medicine approach that's more preventive focused. Can you just start by sharing a little bit more about that with us?

Dr. Chris Renna (03:30.412)

Yeah, thanks for your interest. think that's a really good question. What motivated me was the realization I had after about five years of primary care. And the thought I had was I'm coming into this room too late, meaning these people already have a diagnosis and they're going to reveal their symptoms to me and I'm going to name their diagnosis and I'm going to know the therapeutic response or the therapeutic treatment or protocol. But really, I'm just

managing their medical problems. in that paradigm, their diseases was my annuity. And as long as they were sick, I was going to get paid to manage it. And I thought, that's a total aberration of what I think medical practice is intended to do and what I intended to do with my career. So I really started to look into

how could I do it differently and what would I need to know in order to do that differently? And in the next five years, between 85 and 90 roughly, I went through a bespoke reeducational process in which I learned the things necessary to help people stay healthier and prevent their problems.

What were the key things that you had to learn in order to kind of really be ready to launch in this kind of practice?

Yeah. So each of us as individuals exist in two realms. The realm we recognize most readily is our body. And our body is dependent upon diet, exercise, sleep, and it's heavily influenced by our perspective. Perspective being our view of self and place in the world and, you know, however we think today is going. That perspective influences our bodies.

Dr. Chris Renna (05:21.602)

through the immune system. The immune system takes its cues from two primary sources. It reads the outside world through the microflora of the gut, and it reads the inner world through communications with the limbic system. And that's what influences our body. So those are the four cornerstones of somatic health, is diet, exercise, sleep, and perspective. On top of that, we build a superstructure. Because unless we're washing our body, unless we're

tending to it unless it hurts us or unless we're adorning it with clothes or decorations, we completely ignore it. The only time we think about our body is when our attention is drawn to it. Otherwise we live in our mind and the mind is an electrical hologram that's created by inseparable ongoing interactions among neurochemicals, hormones and immune system chemicals. That's what creates our mind, gives us our perception.

And that's what gives us our experiences that make life so valuable.

I can tell we're going to have a fascinating conversation today. I'm really excited. I want to dive into the hormone piece because, of course, that's what we do so much of on the DUTCH test. And you mentioned that as one of the really core kind of communication pathways that we have. Can you talk a little bit about why hormones are so important in a longevity medicine practice and how they influence aging, why it's so important to take a look at them?

Sure. In fact, each of us, one human being, is literally more complex than a star system. We are about on a parallel with a galaxy in terms of our dynamics. And so instead of talking about hormones in their actual application and role, I'm going to use a metaphor and make it simple to understand. Hormones are management.

Dr. Chris Renna (07:17.9)

They are to the body what management is to a business. Businesses have a goal. It's usually a goal to produce something or to provide a service. And they have a workforce. And the workforce has to be scheduled and coordinated and supplied and supported. And all of that workforce depends upon management for their efficacy, productivity, and efficiency.

And whoever is benefiting from this business, let's say the owners in this case would be parallel to the mind. The mind benefits from hormones managing all that workforce in order to coordinate and harmonize all of those different activities to produce the energy and point of view frame of mind that helps us enjoy each day. So hormones are management. They're middle management, they're upper management.

And in some cases, they have a vote on the board.

I love how you talk about that, because it's really understandable. They're just such an important piece to make sure that all of our organ systems are in check and doing what they need to do, just like departments within a business.

Yeah, the trillions of cells that make up those organ systems. It's, you know, each human being is the biggest business in the world.

Dr. Jaclyn Smeaton (08:38.542)

So tell me a little bit about how that inner, or how that kind of has an interplay in the aging process. mean, our hormones, obviously they influence our body's ability to age gracefully and to be kind of doing the right things. How do you think about that when you think about hormone balance and how that impacts our long-term health?

Yeah, thank you. So I guess the best way to say it is that first define aging. Aging is the loss of function over time. And that's a very simple, understandable, repeatable definition, loss of function over time. And if you look at the natural characteristics of aging, that's what it looks like.

I can't run as fast as I could 50 years ago, nor can I run as long as I could 50 years ago. In fact, I can hardly do anything as well as I did 50 years ago, except for the very elite pathways of thinking. So in order to maintain function, we need our workforce to be managed in an efficient and productive way. And hormones provide that management. Hormones influence

every cell in their energy producing capabilities. And the crescendo of all those cells producing all that energy ends up being perceived by each of us as how we feel today. Are we tired? Are we not tired? Are we excited? Are we engaged or enthusiastic? Hormones are responsible for that. Now, the workforce is responsible for producing it, but hormones are intimately involved in managing that workforce.

so that that energy level is as optimal as it can be and is sustained as long as possible. So what is hormones to aging? Without hormones, without management, you're going to have chaos, inefficiency, and non-productivity. And that's going to give you a different result and a different outcome each day.

Dr. Chris Renna (10:53.954)

And when you multiply those days into decades, you're going to lose a lot of function that you could have preserved had you paid more attention to those hormones.

It's interesting because you mean hormones if they're this manager, you know,

the implication is that you have your cells that are the team that are doing the job, your organs and your cells. And when I think about the aging process, you have a little bit of some hormones decline naturally with aging. And obviously, they decline in response to changes in cellular and organ function. Like ovaries are a great example. As ovaries decline and hit senescence, as women approach menopause, you see hormones like FSH go really high. You also see hormones that are output by those organs

like estrogens, come down. So when you think about hormones as a part of aging, I have that question of like, it the chicken or is it the egg or is it both? Because sometimes it changes in response to the cells and the organs shifting. And other times, the hormones themselves can decline with aging and have a downstream impact.

I understand. you know, as as you've experienced in your career and me and mine, hormone imbalances or hormone downshifting or upregulating is not necessarily associated with age. mean, you know, a lot of younger people have hormone imbalances and hormone problems. And when most of us hear the word hormones, we think about the reproductive hormones because they take first position. But clearly,

Dr. Chris Renna (12:33.022)

low or high thyroid is a hormonal problem that doesn't discriminate by age. So when we talk about the global group of hormones, we could develop hormone imbalances in any of those axes at times. But what really, what we're mostly focused on with regard to the loss of function over time, hormones and aging, has to do with

with our original design and our destiny. The original design was to develop us in a certain compact number of years, say 15 years, bring us to at least the beginning of mature development, then continue to perfect that product of development over the next decade so that we were fully developed by 25.

but giving us the ability to procreate even earlier than 15, women menstruating and men producing sperm in their early teens, some women 10 or 11. And that gave us the ability to procreate. The maturation of this body and the mind over that following decade between 15 and 25.

gave us the full depth of understanding of the importance of that procreation in terms of protecting our partners and our offspring, providing for them, and then ensuring their ability to reach procreative age as well as helping the community survive gave us about another 15 to 20 years. somewhere between 40 years and 50 years of age,

Nature is much less interested in us. She's much more interested in that younger generation and that process in terms of the perpetuation of our species and the advancement of our ideas. Now, of course, anyone who turns 50 says, I'm not done yet. I don't care if nature thinks I am or doesn't care about me anymore. If nature has abandoned me, then

Dr. Chris Renna (14:55.35)

I'm going to take responsibility for myself. And that's really where we think about reproductive hormone replacement therapies comes in. If it happens to be thyroid or some other hormone earlier in life, we have to address that right away because that threatens the whole idea of human survival, perpetuation, and refinement. But for most of us, it's really about,

What's the second half look like? What does 50 to 100 look like? And how important are reproductive hormones, growth hormones, thyroid hormones, and other metabolic hormones? How important are those in that span? And of course, what we know is they're very important. They're important to maintain function.

Yeah, now one of the things you said really hit me, is like nature, you know, when you're in your forties or whatever, nature kind of takes over and our nature abandons you and you have to take over for yourself. Now I'm really curious because you are so you got into this longevity medicine practice earlier than most certainly earlier than most of the docs I get to talk with. I find it really fascinating because culturally have we shifted where there's a higher level of interest or of that.

self-accountability around that? mean, it seems like the interest of consumers in owning that shift or wanting to live more, I would say, as if they were younger, but I don't mean that about staying younger. It's about being mobile, being active, having high energy, great cognitive function. Has that changed within the public generally over time, or has it just been that people realize there's an opportunity to do it?

Well, I think it's both. I think that it has changed. I think that there was, you know, a subtle and progressive shift in 1990s into the early 2000s. And then there was a lot more attention paid to it. And I think that as a society, at least in America, we were given we were given permission to aspire to age more healthfully. And, you know, that was rather paradoxical in my

Dr. Chris Renna (17:12.184)

from my point of view in the 1980s and 90s is why isn't the medical community at large supporting the measures that will help us maintain independence late into life? How is the medical community so short-sighted? And when you think about my original realization that disease is the medical community's guarantee, it's not that the medical community inspires or encourages or

conspires to create disease in people, but the medical community is perfectly comfortable with people not being well. That's there. It seems to be their purpose. It's a it's a perversion of the original intention. I don't think any college student takes premed courses thinking that they're going to help support the perpetuation of disease, but that's how it works out. So, yeah, there was this growing group of physicians called them integrative, holistic,

non-conforming, alternative, call them, you know, label or describe them however you like. There was a growing population of physicians who were becoming more and more disillusioned with that practice and more and more interested both for their own purposes as well as for their patients. And how can we make this better? The same motivation and realization that I had in the 80s grew in popularity in the mid to late 90s and then became

more established in the early 2000s. So more more physicians got interested in the idea of maintaining function over time, which by definition is longevity. What you talked about earlier,

which I think the word independence describes it, we fantasize about reaching 100. And when we think about it in our experience, we think about

the centenarian being wheeled into his or her birthday party with a comfortable blanket on their lap and a pet or a great grandchild by their side and of course having one candle on the cake and hoping that they can get close enough for the first, second or third breath to blow that out.

Dr. Chris Renna (19:34.156)

In the early 2000s, the vision started to change. And certainly by this time, what we aspire to is to drive to our 100th birthday party, walk in, greet everybody, thank everybody for being there, blow out the hundred candles on the cake. Granted, it's going to take about three breaths if you look at vital capacity, but still with three breaths, blow out all the candles, thank everybody, have a glass of wine and go home and drive home.

and say, hey, I got to go. I've got a golf round to play. You know, I have to go. have, you know, I have a meeting to attend. I'm going to take my wife to the museum. Independence and engagement and the choice of purpose, the choice of pursuing purpose. All of that is completely, you know, adulterated and diffused by disease and by infirmity.

and by immobility. Just think about the word frailty. You associate frailty with people in their 90s and certainly a centenarian. Nobody wants to live frail. We all accept the fact that our parents or grandparents may be residents in assisted living because it's a safe and comfortable place.

Frankly, nobody's happy about that. The people visiting them or the people living there, they're going to make the best of it. But that's not what we should aspire toward. And that's not the limit of our abilities. And hormone replacement therapy, to make it germane to our topic, was the cornerstone of that. And it was a real puzzle to me after studying the literature and after seeing what was known.

Why did the conventional community oppose that for such a long period of time? And even still today, mean, there's still remnants of that today where there's still this mythology that estrogen replacement causes breast cancer. And it's not just among the sort of poorly informed or misinformed public. Some physicians carry that idea. you can't take estrogen replacement. You your mother had breast cancer. It's like the Women's Health Initiative showed that estrogen replacement created the lowest

Dr. Chris Renna (21:55.938)

breast cancer in the group. Estrogen replacement in that way could be considered preventive against breast cancer. So, you know, we have a lot to talk about in that subject and I won't, you know, digress and dominate the conversation. yes, suffice to say that we've made a lot of progress in terms of the recognition of the benefits of remaining independent. And in order to remain independent, we need good middle management to manage the workforce.

and to deal with our growing inefficiency.

Yeah, I I love the way that you've summarized that. what's so interesting to me is that I think, you know, when longevity medicine first came out, well, let me just use one example. Like there's a conference, American Academy of Anti-Aging Medicine. I attended for the first time, 15 to 20 years ago. When I went, the attendees, the doctors and the patients on there, or the consumers that were interested in that, they were, my guess is probably

predominantly 60s, maybe 50s. Now, if you go today, there's doctors fresh out of school going into this. And I think that is a matter of business opportunity and awareness of this longevity medicine platform. But I also think that we're seeing younger and younger patients want to be proactive, whereas I think people used to get proactive when they started to see dysfunction and they couldn't perform the way they used to.

and they wanted to turn back the clock, where I think now you have more and more consumers. I see this too. mean, I'm in my 40s, but I see my kids who are like teens and 20s showing interest in being more proactive to do the things to delay aging. And that is so fascinating to me because it's really, it shows the change and the growth in the industry, but

also reflects back on that healthcare movement that you talked about. And I think I like a dissatisfaction with the disease management model.

Dr. Jaclyn Smeaton (23:54.162)

And I think a lot of there's a lot of groups out there trying to solve that problem now too, because I think you're right. Physicians don't enter medicine because they want to dispense pharmacy and keep people not feeling their best. They want to catch it sooner. They want to help people live better. I think that's the majority of health care providers, but our system's not really designed for that. And I think that's why we see so many docs like you train conventionally, but move into a more integrative, preventive approach because

It's like far more satisfaction when you're actually able to get someone to be well and to not need ongoing medication or to be able to do physically, mentally, cognitively what they want to be doing versus feeling like they need to just depend on something for maintenance.

there's no doubt in that there's a greater reward in helping someone stay healthy. And one of that greater reward is them thanking you for helping them feel better than they did before they met you. And, you know, the the original exchange in the physician patient relationship, the original reward was knowing that you helped the person. And then the bonus was them acknowledging that.

And then of course the reason you have a front desk and a staff is so that you can get paid for the transferring the knowledge and achieving that goal in order to sustain the practice of medicine. But that's the real reward is when someone says, know, Dr. Smeet and I feel so much better. Thank you so much. Like this really worked out for me. I'm no longer having headaches. I'm sleeping much better through the night.

You know, I have so much more energy than late in the afternoon. I can pick my grandkids up now from school and actually go and play with them instead of having them come in and me lie on the couch. I mean, that's the opportunity that we have and that's so much more fulfilling than having someone say, I need a refill of this medication.

Dr. Jaclyn Smeaton (25:53.582)

Absolutely, a doubt. Yeah. Now I'm curious because you mentioned the Women's Health Initiative and I think the publication of that was about like 2003, four, five, kind of early 2000s. But you were in practice, I'm assuming, using hormones in the 90s as well because you had your practice open in that time. I mean, when I think back, when I look at the publications that came out during that time, they were largely positive. And so I think a lot of women were excited to get on hormones and then there was this very drastic shift. I was in medical school

when that was published. I was taught in my program lowest dose of hormone, shortest duration, just to manage hot flashes and get them through and then get them off. And I've been part of that group that's had to relearn and really understand how that interpretation of the data was a little bit flawed. But I'm curious, what was the perception around hormones and how were you using them in practice then?

And are we back where we used to be? mean, you mentioned a lot of physicians, and you're right, they haven't been retrained or they haven't bothered to learn. They still have a negative impression. But before we get into kind of the details of personalized hormone therapy, can we just talk a little bit about how that practice has changed over time?

Yeah, absolutely. And congratulations for, let's just say, going beyond your education and learning better ways to help people than you originally taught. That's one of the barriers to why hundreds of thousands of physicians still don't really recognize or understand the value of hormone replacement therapy.

We'll be right back with more.

Dr. Jaclyn Smeaton (27:35.628)

If you're already running DUTCH tests in your practice or thinking about it, there's never been a better time to become an official DUTCH provider. Why? Because we go beyond lab testing. Our provider community gets exclusive access to clinical education, in-depth report interpretation training, monthly case reviews, and one-on-one clinical support. Whether you're just getting started or looking to sharpen your functional hormone expertise, we give you the tools to grow. Join thousands of

We're back with the DUTCH podcast. So Dr. Rana, I we talked a little bit about the difference between kind of a synthetic and bioidentical product. And one of the things that you'd mentioned earlier was around the fact that synthetic hormones, when they get metabolized by the body, they don't make the same metabolites that a body identical hormone does. And that metabolites are

also active. And I want to talk a little bit about one, because it's something that I'm really curious about, which is allopregnanolone, which we know like in the brain, for example, allopregnanolone has a there's a ton of receptors for that in the brain and that when you're using a synthetic progestin, you don't make allopregnanolone. So it makes me think about some of the one the differences we see in outcomes with the two because there's a couple of studies around that verse using progesterone, but also what your thoughts are around that with some of the

things that women seek out progesterone for? Of course, number one, endometrial protection, which progestins are fine. But then when we think about some of the other benefits some women seek, look for, or achieve with progesterone, like sleep, improvement, cognitive function, what are you seeing in your practice with that?

You certainly name them. In fact, you not only got them all, but you got them all right. Yeah, you understand. my boss that. Yeah, you understand where it comes from. sure. You know, one of the things that gets pointed out when you learn about biidentical hormone replacement is that nature would not have put a receptor there if it didn't have a purpose. Nature is ultimately efficient.

Dr. Chris Renna (29:50.124)

and it has no receptors without purpose. There are no vestigial receptors, there are no leftover receptors, no appendix receptors. If there's a receptor there, it's doing a job. And there are lots of progesterone receptors throughout the brain. And we know in treating head injury, post-head injury patients, that progesterone makes a big difference in reducing inflammation and helping the brain heal. So if you think about

the acute incident of a concussive injury and the inflammation that that causes and how helpful progesterone is in mitigating that. And then you think about the gradual rise of inflammation in the female brain postmenopausal. You think about how much, how valuable progesterone would be for that brain. And as it turns out, progesterone given in its natural form, whether immediate or slow release, helps women sleep.

It helps women feel better when they wake up. It helps women think more clearly and be more attentive, all of which has to do with the reduction of inflammation and also the facilitation of efficiency. Remember, earlier we talked about hormones being managers and progesterone helps to manage the synaptic connections and nerve transmission that interrelate the different segments of the brain that give us awareness and

purpose. So progesterone replacement, you know, if you if you look back in the 1990s, bioidentical progesterone was being used for PMS and PMDD. And it was being used very successfully. And we then later found out that it was because it it improves and and potentiates allopregnenolone. I think that

The secret benefits of allopregnenolone have not yet been fully revealed. And I think that allopregnenolone is going to become an even more important molecule as we go forward in terms of dealing with even age-related cognitive loss as well as dementia.

Dr. Jaclyn Smeaton (31:59.852)

Yeah, and I love that you mentioned the studies on head injury, which include men. They're predominantly, I think, studies in men around that. the outcomes are amazing. They use a pretty high dose progesterone to reduce brain inflammation. I like that you're drawing that correlation between what we see physiologically in the presence of progesterone in those studies that are in more of an extreme injury mode, but probably similar physiological benefit that we may be seeing with replacement there.

at that lower postmenopausal level. That's really interesting.

Yes, the benefits in this progesterone example, the harm done by acute, flagrant, exaggerated inflammation that follows an injury is similar to the harm that's done over longer period of time in chronic low-grade inflammation that we're all subject to.

Now, we talk a lot about hormone therapy in females as they age, related to symptom management, like vaginal dryness and hot flashes. But I want to talk about a couple of other things that really come to be part of that picture, the longevity medicine kind of picture. Tell me a little bit about

Are patients coming in for other things or asking other questions around hormone replacement of things like, it help my energy, can it help my cognitive function? And how do you answer those questions right now?

Dr. Chris Renna (33:28.44)

Sure. And that's a great question. Yes. You know, people don't come in to discuss by identical hormone replacement or or replacement therapy. When they're when they complain is I'm tired when their complaint is, you know, I don't lack enthusiasm anymore. They just come in with that complaint and they're saying, you know, it's.

58 year old woman who was given initial hormone replacement therapy during the transitional period by her conventional gynecologist who from 48 to 53 had hot flushes. She was given low dose minimum hormone replacement and then advised to withdraw under that mythology that this hormone, if you continue, might increase your risk of cancer. And, you know, here she is five years later feeling tired and unenthused. And it's like, yeah, well.

You let your managers go. You fired management. And the end product was energy and engagement, enthusiasm and vibrancy. And now you're not having that. Well, guess what? You fired management. You let management go. Replace management. And let's do it in a safe and reasonable, well-coordinated program of

starting low, going slow, having reasonable expectations and supporting metabolism, let's start there and let's rebuild you. I don't want to get into pet peeves, but one of the things that I've

encountered in my career has been conventional gynecologists or conventional physicians advising against a woman to restart hormone replacement based on a single study that showed that if you start hormone replacement long after menopause occurred,

you have a higher incidence of complications.

Dr. Chris Renna (35:25.932)

Honestly, the higher incidence of complications makes some sense to me because you've let the receptor system break down. And you're going to have more trouble with the metabolites because you've let the excretion system break down. You're going to have to rebuild that system. going, starting low and going slow is going to help you rebuild that system gradually over time. And you can minimize any adverse effects or symptoms during that process. the answer is not.

Yeah, I think about it the same way.

Dr. Chris Renna (35:53.324)

I guess I'll just give up and won't take the hormones anymore, even though they might have been the reason I was feeling much better when I took them. Or even though I should have taken them earlier in my life. There's no giving up. mean, nobody, none of us want to give up.

really, I'm so glad that you're bringing this up. So I think it's a really, it's one of the areas that even in functional integrative medicine.

We don't really talk about it. There's so many women who are affected by WHI, by their OB-GYNs taking them off of hormone therapy. And they're coming in now five, 10, well, 10, 15 years later thinking, know, hearing, I'm hearing all these benefits. Could I get back on therapy? And I think you're totally right. They're hearing generally, no, it's been too long. It's not safe. And I see this in the functional medicine community as well. And I think that's because we're risk averse, especially when you're thinking about things like cardiac events. We don't want to be

causing any kind of dire complication. it's something that we haven't really talked much about on the podcast. And I don't think there's a lot of clinical conversations that I've been a part of talking about this, about that low and slow methodology or whether you could safely onboard women again by taking a different approach than just putting them back on the dose that they were successful on before. So I'd love to hear you talk a little bit more about that.

Really, I mean, it makes a lot of sense because you're kind of starting to reprime those systems again to see if it's possible. Do you know of any data on that yet? Because I think that seems like a really viable, at least an interesting study to take a look at.

Dr. Chris Renna (37:28.462)

Sure. The data of which I'm aware is going to, you know, hit you at home base. And what I mean by that is, no, I know of no organized study that has looked at a control group of women, let's say from 65 to 70 who resumed hormone or began hormone replacement therapy de novo versus that same age matched population who did not. I'm not aware of any of those studies, although I think it's worth doing. I think it would be very valuable.

But the data I'm familiar with is the data that we collect on each individual. And that's where the DUTCH test comes in. The DUTCH test is comprehensive. It shows us the metabolites. It shows us how to correct the metabolites. It shows us a daily pattern. It's a convenient test from a standpoint of you being able to collect the samples on your own. Plus, it gives you an entire day's picture instead of one snapshot of a person 8 o'clock in the morning on

you know, August 18th or 19th. The reports are contextual. They're insightful and they really talk to you about root cause if it's a problem you're investigating, but it also gives you a guide in terms of, OK, how to start this person and then how to progress this person. And you can use that test periodically to go back and check your work. And you can see, do we need to change this based on the organic acid profile of the metabolites?

Do we need to improve glutathione activity? Is there an adrenal issue contributing to this? And as you and I know, and the general public really isn't aware of, that each hormone that we know the name of is an instrument in the orchestra that plays the symphony of life. And you have to be able to conduct

those instruments and you have to adjust the volume of those instruments to make that music sound best. And the DUTCH test gives us the ability to be that conductor. It gives us the ability to look at how we're replacing these hormones and does she need more progesterone? Does she need less estrogen or more estrogen, less progesterone? You know, how are we managing this? And of course, you know, setting reasonable expectations like, okay, you're 65, you're tired.

Dr. Chris Renna (39:55.086)

and you're tired of being tired. You never did this because your sister had breast cancer and you were told it was going to increase your risk, misinformed, but okay. And here we are. And you've heard and been told, not heard, but you've been told that this would be dangerous. What seems more dangerous to you that we give this a try and we monitor your progress over time, making sure that we do all of the...

early detection tests that are necessary, skin inspections, dental hygiene, mammograms, ultrasounds, imaging studies of different types, DEXA scans. We are responsible to what we're trying to do because what we're trying to do is change the trajectory of your life. We're trying to help you have a better experience and land in a different place than you're now directed to. So let's work together, be responsible in this and let's go forward.

God forbid the seeds of these one of these diseases or disorders that hormones are going to not help and work against perhaps, the seeds are already planted and you develop one of these diseases over time. know, nobody gets breast cancer in a year. People get breast cancer after decades. So let's watch for these things and let's just be responsible to the process. But let's get you back. You know, like let's reclaim.

change that trajectory and reclaim the quality of your life.

Yeah, it's interesting because I think that approach, that kind of patient-centered approach.

Dr. Jaclyn Smeaton (41:31.202)

particularly when you have the resources to do things like a DUTCH test and get the additional information. It allows that optimization, that really personalized approach for patients. And thank you for all that you said about the DUTCH test. I'm glad you find it so helpful in practice. And I see a lot of even conventional practitioners. I did this week long certification course at Harvard Medical this year, all around women's health and menopause. And a lot of the faculty there were very conventional in their approaches, like Rachel Rubin, Heather Hirsch,

et cetera. But what I loved about hearing from them is there is this shift, particularly in women's health, towards shared decision making. And that even if it goes against guidelines, or it's in a gray area of guidelines, testosterone use in females is one of the areas that came up kind of over and over again in this realm, which we can talk about if you'd like to. I'd love to hear your thoughts on it. But.

it really comes down to the practitioner being informed about what the data says about risk. And even when nothing's without risk in life, right? With this hormone conversation, there's risks of not replacing hormones and there's risks of replacing hormones. So making sure your patient's informed and kind of going through that shared decision making is really the best approach for women. And I think especially for those women who live in that gap.

where they were taking off hormones or they never had access to it due to the kind of the cultural state, you know, the social state at that point in time. I'm just really glad to be having this conversation around that.

You know, one of the things that I think has to change in the doctor-patient relationship when you introduce bioidentical hormone replacement therapy is the sense of hormone replacement being a directive. Like you've come here with a problem and I'm giving you direction. That's the usual expectation. And that expectation is not productive. And it's not productive for a couple of reasons. One is that

Dr. Chris Renna (43:31.15)

the person who's receiving the direction feels much less responsible for the implementation or reporting back the results. They think this is the doctor, he or she knows what to do, I'm gonna do it, and if it doesn't work, I'm just gonna stop doing it, I'm not gonna tell them it's not working.

It has to change from that directive relationship into a partnership, a collaboration of hey, let's do this together. We try and get your energy back.

through this hormone access. By restoring middle management and upper management, we should be able to get greater efficiency. And, you know, we'll try and get this back and we'll go slow. We'll start low, go slow. And you and I both have expectations. I'm going to meet you every month. I'm going to meet you every two weeks, every four months. What, you know, whatever period of time you think is necessary to monitor this person and keep them engaged in the process. Also giving them access.

to someone in your office, if not you, who they can call, contact, email or text and get a same day response. I know that's considered concierge service and that a lot of doctors don't have or can't afford the staff necessary to do that. when you do hormone replacement, you got to have that. You you have to have a portal that this person can access at any time, because as you know, hormones can create.

or you can have an abrupt symptom and not know if it's your hormones or not. And all you want to know is, is this happening because of what I've done this morning? You mentioned testosterone earlier. You know, it doesn't make any sense that women wouldn't need androgens. I mean, we see how nature built us and we see the proportion of androgen and estrogen in men and women. And men have about as much estrogen and effergen receptor in effect.

as women have androgens and androgen effect. But the bottom line is androgens build and maintain the structure. They build and maintain muscle. They influence energy production within the muscle. So they're responsible for both muscle tissue as well as strength. And they build bone. Estrogen suppresses the cells that break bone down and progesterone and androgen, encourages the cells that build bone up.

Dr. Chris Renna (45:52.248)

What else you have to say? mean, does osteoporosis occur in people who are suppressing osteoclastic or breakdown activities and encouraging osteoblastic or building activities? No, it's not going to occur. Dietary deficiency, absence of vitamin D, sure, check those boxes, but you

you're just you're just not going to develop that disease or disorder. If you do, it's going to be later and lesser and you're going to be at lesser risk.

Think about how important strength is. Think about frailty. You know, that example of the hundredth birthday earlier. What about your thighs and your buttocks muscles? At the atrophy over time because you don't have enough androgen to support them? Or we haven't talked about it, but you know, the taboo subject of IGF-1 and growth hormone, that's always been kind of an Achilles heel for the integrative or holistic or anti-aging community. Because again,

It's this, you know, foreboding mythology of, know, there's a lot of tumors that use IGF-1 to perpetuate themselves. Correct. So make sure you're looking for those tumors before you put someone on growth hormone replacement or a peptide that would stimulate growth hormone secretion. Absolutely. But don't say, okay, because this might happen, you need to wither. Just go, you know, go wither and be happy about it. That's what kind of solution is that.

Yeah, you're right. And it's a matter of, you know, if you're

able to help patients adequately understand the risks and you're able to put in monitoring and proactive approaches to try to prevent adverse events. know, I think, like I said, I think that shared decision making approach is really beneficial. Yeah. There's one more topic that I want to talk about that I think we'd be remiss to not cover before you leave the podcast. And that's really the kind of two things that the metabolic flexibility as a concept and also mitochondrial health. And I know this is an area that you have a lot of experience

Dr. Jaclyn Smeaton (47:52.732)

And I want to make sure we have the chance to touch on it. For those of you who can't see, he's like putting his hands together in excitement, practically rubbing them together to talk about these topics. But this is really becoming such an important topic for men and women. Of course, when we look at the chronic disease that we see in life, almost all of it can get back to mitochondrial function in some piece of its pathology, and also to aberrations in our metabolic health and our metabolic flexibility. So first of all, for someone who these concepts are new for, like a beginner,

How do you explain the importance of these two things to health for a patient?

Okay, this is really important and I'm going to be brief because it's broad and deep subject and you know perhaps you'll have another speaker or I'll get invited back for a second you know pass at this but bottom line is

Youth is the product of inexhaustible energy and energy efficiency. And aging erodes our energy production and our energy efficiency. And the problems that result from that just compound the problem. In our 30s, it's geometric, and in our 40s and beyond, it's exponential. That's why we age. That's why we die.

If each human being had a source of infinite energy production and infinite energy efficiency without the production of waste or damage in the process, we would literally live forever. So this is really important subject and metabolic efficiency is a new and a better descriptive term for insulin resistance syndrome. What we're really talking about is the agility of your body to shift between.

Dr. Chris Renna (49:36.952)

to have access to caloric sources, stored calories, either in the form of fat or carbohydrate. So it's to have access to those calories, and it's also to be able to shift between those calories as resources very agilely, very quickly. And that's what metabolic flexibility is about. Can your metabolism naturally and automatically go from burning carbohydrates to getting calories out of fat? One of the reasons that the GLP-1 drugs

I won't mention their brand names, but everybody knows what we're talking about. These injectable medications that started out costing a fortune and now have been reduced as, you know, a smaller fortune by generics. What we've seen is that the benefits that are being talked about with these drugs are all coming from increasing our access to energy supplies. restores, it restores this metabolic flexibility that we once had.

And that's what makes fat go away. It's part of the reason they suppress appetite or reduce your appetite is because the reason we have an appetite is we can't get at the calories that we

stored around our waist and in our thighs and in our bottom. We can no longer gain access to that. Somehow the evolutionary process has barred us from access. So restoring metabolic flexibility is of paramount importance in terms of restoring access to energy.

and feeling energized, enthusiastic, and capable. Mitochondria. So mitochondria are little batteries that exist in everybody's it's not a single generation. Mitochondria are, like batteries, they get used up, they burn out, and you gotta get rid of the old ones and replace them with new ones. That's called mitophagy and mitochondrial replacement. It's a big area of investigation.

Ingevity sciences and it's something that we're going to hear a lot more about in the next five and 10 years. because if we could encourage mitochondrial, increase the number of mitochondrial cells, we could get more energy. And if we had more energy, we would be more efficient and we would also heal better and recover faster. And that would keep us younger for longer period of time. Mitochondrial support is a paramount importance.

Dr. Chris Renna (52:03.854)

to continuing to remain healthy because basically energy prevents disease. The more energy you give your body, the fewer diseases you're going to develop. And I'll, you know, I think your next question will be how do we do it? You do it through targeted support and it's nutritional support. It's nutritional supplementation. It's behavioral stuff like the diet, exercise, sleep thing. It's also nutritional supplementation and the world of peptides is a whole other.

topic as well, and there are some peptides that we know really help mitochondrial function.

You know, I think that you're totally right that this is an area that needs further exploration. the amount we're covering it today is like wholly inadequate for all there is to say. But I'm excited for you to at least touch upon it. And I just, can see and hear your excitement around the topic. this is a...

really an area that's rapidly transforming on the nutritional therapeutic realm, on the peptide realm, in the lifestyle space. What are a couple of things that have come out in the last few

years around metabolic flexibility and mitochondrial health that really excite you right now that either you're doing in your practice or you think five years from now, this is going to be top of the game?

Nochondria begins with a nutrient dense diet and that means, you know, farm to table or organically grown vegetables. It means carefully curated animal proteins and healthy oils. Nutrient dense foods is where it begins because you can't take enough vitamins to replace a healthy diet. But because of our, you know, nutritional, because of the nutrient density in the foods we have access to, we also need to take nutritional supplements.

Dr. Chris Renna (53:46.124)

So nutrient-dense diet plus nutritional supplementation, intermittent fasting is an interesting process which people can encourage the turnover, natural turnover of mitochondria, new batteries replacing the old batteries to get more energy. Daily exercise is very important and I realize that some people say I don't have the energy to necessarily come in here and complain, how am gonna exercise? You're not gonna get that energy back unless you start moving every day.

ample and restorative sleep. We now have access to relatively affordable devices that will measure our sleep and give us some information to share with our physicians. Physicians should respond to that information and help you with whatever level of sleep interruption or non-restorative process you're in. And then as we start the conversation, balanced hormones.

Nutrient density, nutritional supplementation, intermittent fasting, regular movement if not exercise, ample sleep, and balanced hormones. That's the formula. That's what we have and can do now. And the future is nothing but brighter for those people who are prepared at those levels.

Well, Dr. Renna, it's been so great having you on the podcast today. We've talked about a lot of things that really excite me about diving in more and things we haven't really covered thoroughly. So thank you for that and for sharing your insights. If people want to learn more about you, what are the best ways for them to reach you, contact you, find out more?

thank you. Thanks for that invitation. Yes. www.lifespanmedicine.com No trick spelling, periods, dashes, underscore or nothing. Just lifespanmedicine.com. That's where we are. And we would love to hear from you and thank you very much for this opportunity. I hope everybody benefited.

Dr. Jaclyn Smeaton (55:37.982)

I'm sure they did. certainly did. So thank you so much for your time. And we will post that link in the show notes as well for you guys, wherever you're listening, you can go ahead and check that out. Thanks again, Dr. Rana and thanks to all you for listening. Thanks everyone. Thanks for joining us on the DUTCH podcast. Join us every Tuesday for new conversations with leading functional health experts. If you like what you've heard, be sure to like, follow and subscribe wherever you get your podcasts.

Goodbye for now.