Conscious Life presents

Personalized Medicine for Hormone Imbalances

Guest: Dr Neil Paulvin

Disclaimer: The contents of this interview are for informational purposes only and are not intended to be a substitute for professional medical or psychological advice, diagnosis, or treatment. This interview does not provide medical or psychological advice, diagnosis, or treatment. Always seek the advice of your physician or other qualified health provider with any questions you may have regarding a medical or psychological condition.

[00:00:09] Dr Anu Arasu

Welcome. I'm Dr Anu, co-host of the Hormone Super Conference. And today I'm joined by Dr Neil Paulvin. Neil is a physician and also a leading expert in biohacking and human optimization. He has certificates in family medicine, anti-aging medicine, and osteopathic manipulation. Welcome, Neil.

Dr Neil Paulvin

Hello. How are you doing? Thanks for having me on.

Dr Anu Arasu

I'm really well. Thank you so much for being here, Neil. So we want to start with... I mean, you have a wealth of information from all of the background that you've been studying, but I really wanted to start with your approach to hormone therapy. When you see a patient come into your clinic, what are the things that go through your mind?

Dr Neil Paulvin

The main thing is... Or two things. One, we want to make sure that patients understand that things are not cookie cutter. They come in and say, "Oh, my friend is on this and this and this. So I want that." That's the first thing. The second thing is we want to make sure we ask them what their symptoms are and what their goals are. Because, again, if women are having no hot flash and just feeling a little brain foggy or bloated, that's one thing, or if they're totally having no libido and other issues, then we have to target otherwise.

Sorry I'm just getting over allergies here in the US. So that's kind of how we approach it. That's the first thing we're looking at. And then also understanding what patients prefer. Some patients have no problem injecting themselves. Some patients don't even want to look at a needle. So there's a lot of different things. You want to understand where the patient is coming from and what their goals are, because there's so many things available now that you can kind of mix and match really easily for them.

[00:01:55] Dr Anu Arasu

So what I'm hearing is that it's actually a very personalized approach, because there can be a whole host of symptoms, right from the physical, to the emotional, to the cognitive function, and you are tailoring your treatment quite differently depending on how somebody is presenting?

Dr Neil Paulvin

Definitely, yeah, it's very personalized. And that's what's great about hormone therapy now, is that we can target their specific goals, their specific lab work, their specific genetics, and make a program for them and help them get to their goals really quickly.

Dr Anu Arasu

So how do you do that, actually? What does that look like?

Dr Neil Paulvin

Again, first thing is we get a detailed diary of... Especially in females, in terms of, are they having cycles, are they regular? How many days are they, what symptoms are they having? The first things. And then we again detail what we have, kind of, a big five for women and a big five for men. Are men having brain fog or poor workouts or muscle loss or decreased libido.

In women, again, hot flashes, poor sleep, bloating, problem with memory. And then we can kind of specifically, again, start with the lab work, their exam and... Their lab work, and what their symptoms are. And then we develop a plan for them. And then again, we'll start them usually slowly, with one or two medications. And then we kind of will build up, depending on what's working, what's not working. But usually you hopefully get resolution of the symptoms pretty quickly.

Dr Anu Arasu

So from your perspective, testing is really important because our audience is quite mixed and we're coming from different places. And of course, some people are told various things about the need for testing. But from your perspective, what would you say about testing?

Dr Neil Paulvin

Oh, testing is mandatory. You can't treat what you don't test, especially with hormones, especially estrogen, testosterone, thyroid hormones, any of them. The treatment is so diverse, depending on what the lab levels are. So we don't want to have anybody have too much estrogen, not enough estrogen. Same with testosterone.

So you need to A) know where people are starting from, and then you need to know where they are 3-6 months later to make sure you can tail that treatment. To just get, like, just throwing some random darts at a dartboard. It's not good for me, it's definitely not good for the patient.

[00:04:28] Dr Anu Arasu

Right. And the different types of hormone therapy out there. Can you tell us a bit about that?

Dr Neil Paulvin

Sure. Yeah. There's so many different types that are out there now, which is, again, is really great for patients. There are creams out there for patients that can be anything from just estrogen, combining testosterone, progesterone, DHEA. So they can apply there. There are oral medications. I don't prescribe either oral estrogen or oral testosterone, but there are people who do. There's just too many side effects associated with that, but it can be done.

There are also some injectables that are out there, especially for men. And some women are doing, like, injectable testosterone. And then there's also where we're able to do vaginal creams, vaginal suppository for women who having specific menopausal symptoms like vaginal dryness or pain with intercourse.

Those are the main ways that we can administer therapy. I mean, there's also pellet therapy. Pellet therapy kind of had a huge popularity, which is kind of waning now. Pellets are just not as controllable as some other methods at this point. But some people, especially who have a very active lifestyle, will just prefer the pellets, but they've kind of waned a little bit in terms of popularity.

Dr Anu Arasu

And all these hormones you're talking about are bioidentical, yes? Could you tell us a bit about bioidentical? What does that mean? Why, is it important?

Dr Neil Paulvin

Sure. Yeah. Bioidentical are derived either from different animal or yam. There's different derivations depending on the pharmacy. They are not just basic estrogen pills or patches you're going to get from your regular pharmacy. So they're not going to be covered by insurance. They have less side effects. Certain estrogens, like I mentioned, especially oral estrogen, can have some liver issues. So again, that's why I tend to avoid it.

And what's great about the bioidentical hormones is that we're able to... Down to the 0.25, quarter of a milligram, tailor a program for patients. It could be 0.25 of estradiol or this of estriol or this of testosterone, and then we can really fine tune it, as opposed to just the prescription creams or patches, which are pretty much two or three doses, and you can't interplay with it, which is not as great for patients.

And we find sometimes, because of the way they're designed, they don't absorb as well. So again, I really prefer my patients to use the bioidentical hormones just for improving their levels as quickly as possible, as well as for administration and less side effects, usually.

[00:07:06] Dr Anu Arasu

Right. So just to summarize, some of the, kind of, off-the-shelf stuff is not going to be identical in structure to our body's own hormones. And also, we don't have that same flexibility to really target the dose down to 0.25 milligrams of estrogen.

Dr Neil Paulvin

Exactly. Yeah. They're not as close as to what we're able to administer into our bodies. Yes, definitely.

Dr Anu Arasu

Yeah. And how does that play out for patients? What does that actually translate to? Have you seen people come in on standard hormones and then have to change, or what's been your experience?

Dr Neil Paulvin

It used to be patients on standard and not getting the response. As we were discussing before the interview, things have changed now in the last year or 18 months or so, where patients are now being much more proactive about their care, and they're coming in and saying, "Look, I don't want to have any menopausal symptoms. I know there's risk as I get older of just being menopausal and not having estrogen or not having progesterone." So it's kind of, again, totally done a 180, which is really good for patients, and I really applaud that.

So again, it's really not patients, and most patients want bioidentical. I mean, the cost is the main concern, obviously, where it's not covered by insurance, as some of the other prescription patches that aren't bioidentical may be. So that's the one little bit of a red flag for patients. But a lot of patients now are coming in specifically for that. They're worried about all the symptoms.

Again, it's either going to be the sleep issue or... I'm not going to say, amazingly, but a lot of people are worried about the appearance and skin. They want to look like they're 30 when they're 80 years old. So that's where everybody's heading out, which is, again, it's a great motivation to have.

Dr Anu Arasu

Yeah, absolutely. And you're finding then that people are much more clued up, is what you're saying, that people already know a bit about the difference between bioidentical and synthetic hormones, and they also know the importance of treating menopause. Can you tell us a bit about that, the importance of treating menopause or andropause for men?

Dr Neil Paulvin

Sure. So in terms of menopause, first, we know women that have early menopause, their lifespan may decrease by, like 3% per year, that they're early. And they also have... Women who have early menopause, and we're saying early, we're saying less than the age of 50, which most people aren't aware, because a lot of women don't get to 50 with menopause... With having a normal menstrual

cycle, that there's an increased risk of diabetes, there's an increased risk of Alzheimer's disease, there's an increased risk of obesity.

[00:09:56]

So our goal, again, the paradigm, at least in the US, has been a lot of, hey, you have a female issue, here we'll put you on birth control, suppress your hormones. Now, we're trying to flip that because we know the risk of that, as more and more studies come out. So in terms of patients who, females are looking for hormone replacement, it's a combination of treating the symptoms they're having that moment and then prolonging... Work on prolonging their health span, which is how healthy you live during life, and then also the ultimate chronological years that they're going to live.

Men, a little bit different. Men are a little bit different. Some of it tends to be a macho thing a little bit, or they hear about their buddy doing it. Again. We know, though, that men, testosterone starts decreasing around the age of 30. Some people say about 1-3%. But men also will have specific symptoms. They'll have brain fog, they're going to have erectile dysfunction, they're going to have the inability to build muscles quickly, they'll decrease energy, they may have problems sleeping as much.

So men are again, the same situation where we know that having low testosterone will affect longevity in the long term in terms of lifespan, but it's also going to affect the risk for neurodegenerative issues like Alzheimer's. It's going to affect, again, risk for obesity, diabetes.

So it's a combination again on both sides, the short term, helping people feel better and then optimally, hopefully, if they adopt a healthy lifestyle, live longer as well. Again, the data is that we know the patient... The hormones are dropping and we know they have side effects. And for a while, we never did anything about it, which I don't understand. And now we're kind of, again, flipping the script 180 degrees.

Dr Anu Arasu

And it's especially important about men, isn't it? Because the conversation around menopause for women has really picked up. But certainly in the UK and I think in Europe, andropause is less talked about. What's your view on that? Why is that the case and where's it going?

Dr Neil Paulvin

It's actually the opposite here in the US is that until recently, menopause was just assumed and people didn't understand, didn't really... It was just kind of, okay, I'm in menopause now and I'll just have to deal with this the rest of my life. The reasons I know that people don't talk about it is because some of the symptoms are kind of things men want to keep on the QT. They don't want to be talking, "Oh my God, I don't have the libido. I'm unable to have an erection anymore. My workouts aren't as good." So it's something that people may not want to talk about as much with their doctor.

[00:12:29]

And in addition, I know different countries have really differing opinions on testosterone replacement. Some people think it has no value at all unless it's someone who is really severely low. Other countries won't even allow it to happen at all. So I think it's the inability sometimes to get the medications. And also I think it's sometimes the... Weird talking to your... Women, go to a gynecologist so they're going to have these conversations on a six month or every year basis. Men aren't always going to go to their doctor and talk about it unless a doctor brings it up.

Now, at least in the US, there's online things talking about every five minutes. I don't know how it is throughout Europe, but I know it's become in the last year or two... Everybody knows about it now. Everybody's talking about it, almost too much.

Dr Anu Arasu

Sorry, I might have said that wrong, but I think we're both on the same page. Menopause is well-known about and andropause for men, I think, is not getting the attention it deserves. And you've mentioned some of the reasons why that might be. What would you say to men out there?

Dr Neil Paulvin

I would say to men that, talk to your doctor or be proactive about looking... A) looking at your hormone, seeing where you are, pay attention to what your workouts are, pay attention to your libido, understand that you are losing testosterone yearly, and it's something that you should not be embarrassed to ask for it, not something you need to be embarrassed to go on.

But on the flip side a little bit, it's not something that's a competition with your best friend, that my testosterone is 750 and mine's 900. Again, men and women are competitive, but it's not something to be embarrassed about. It's something you do want to talk to with your doctor about again, even though it could be a sensitive subject.

Dr Anu Arasu

Right. So we're very much aiming for very physiological levels and no, kind of, excess competitive edge or not that not being the motivation, but the motivation being very much coming from a health prevention aspect.

Dr Neil Paulvin

Exactly, yes.

Dr Anu Arasu

And what about younger patients? I mean, you mentioned, actually, you mentioned with testosterone, the men could be as young as 30+. What about younger women? What do you find happens with their hormones?

[00:14:55] Dr Neil Paulvin

That could be an hour conversation by itself. As I said, at least what we're seeing in the US is a combination of different things. We have a lot of women who have a little bit of a painful... Have numerous issues, and again, they're just placed on birth control, which suppresses their hormones when they're 16, 18, 20-years-old. And then they come in a couple of years later and they're like, "I'm really tired, I'm gaining weight, especially in the abdominal area." And then we do their lab work and they have menopausal hormone levels. And I'm like, well, we have a decision to make, so that's the shame of that.

I might think that we need to have... Young women need to be more aware of what they're putting in their bodies and understand the effects that has on them long term, which I think the doctors, especially the doctors normally prescribing it, don't really kind of have that full grasp of yet. The other pieces that we're seeing in younger women... There's two kind of different opposite buckets. We have women who have polycystic ovarian syndrome, which is abnormal functioning of the ovaries, where they can get acne or they can get hair in the wrong places. They can be infertile.

And again, it seems to be they're just trying to... Doctors don't know how to treat them. We're starting to look at further treatments for it because again, we know that especially it can make women have decreased ability to reproduce. So that's kind of gained more knowledge here. But it's still something where women are told, I'm sorry, there's not much we can do about it, or we'll just put you on medicine to suppress the testosterone, which actually makes their hormones worse, and you really haven't done anything.

And then the last kind of batch that we're seeing in that younger generation are women who do have issues that we may need to work on their hormones, either fibroids or endometriosis, which is sometimes overproduction of the endometrial tissue, which can be very painful, life altering, affecting sleep in their life.

And those are the patients that we may need to suppress hormones a little bit and address hormones just to have them have a normal, functional life. That's the unfortunate... There's still not great treatments except for surgery for some of these things. In some cases, especially with endometriosis, it's something that can come back pretty frequently.

So we're seeing, again, a lot of different baskets in terms of female and hormone related issues. The good news is even that kind of group of patients are being much more proactive with their hormones.

If they're primary or their gynecologists don't want to talk about it at that moment, they're seeking out doctors like me who can kind of, at least, again, test where they are, see where they are. Does that coordinate with how they're feeling and then trying to put the pieces together? Okay, my hormones are good. Okay, maybe it's something else or, "Wow, I have menopausal levels. Maybe we can do something here to get them going." So we're seeing a lot of different factors in terms of females, younger females and their hormones. But again, I think it's a good thing that we're seeing right now.

[00:17:58] Dr Anu Arasu

So, in summary, for younger women with hormonal issues, in many cases, suppressing the hormones with the birth control pill is just not cutting it. It's really advantageous for them to, sort of, take a more functional medicine approach and go deeper.

Dr Neil Paulvin

Exactly. Find the cause, see what's going on. There's a lot of new things out there that can help, no matter what the situation is, as opposed to just having a blanket treatment of birth control pills or just suppressing the hormones.

Dr Anu Arasu

We've talked a bit about the sex hormone problems that you see, which relates to estrogen, progesterone, testosterone. Can you tell us a bit about thyroid issues that you come across?

Dr Neil Paulvin

Another hour conversation? Thyroid is one of those interesting ones where everybody's known about that for years. Everybody thinks their thyroid is off and when they have any symptom, from fatigue, to brain fog, to weight gain. So again, that's something we definitely want to test, number one.

Number two, I would definitely make sure patients are aware, at least in the US, and I think it's worldwide, that the levels that are in the labs are not really the levels, optimal levels that we're looking for. So you want to work with a doctor who knows kind of how to optimize your hormones.

And the third piece is A) make sure that your doctor is ordering the right test. Make sure you're getting a total T3 and T4 or free T3 and T4 with the TSH, which is the test that everybody orders, and optimally, thyroid antibodies. So that's the first piece. Again, like I said, you can't treat it where you can't test. And then in terms of thyroid issues, we're seeing a lot of patients who are definitely underactive more than I used to. You're going to have symptoms like weight gain, and hair loss, and fatigue, and problems sleeping.

Those are signs that patients are underactive. And a lot of those patients have, unfortunately, have other issues going along with it, that they're insulin resistant, meaning their insulin is not working as well, or they'll have female hormone issues as well, because the thyroid is kind of the big domino that everything else connects to. If your insulin is off, your thyroid may be off. If your progesterone is off, your thyroid may be off.

So with thyroid treatment in patients, we try to treat as many other issues first to see if the thyroid will kind of regulate itself on its own. And if it doesn't, then we really deal with thyroid specific treatment and again, it's something that we kind of go low and go slow with.

Again, there's both traditional thyroid prescriptions, and then there's also compounded thyroid medication. They both work pretty well. I mean, I like the Armor Thyroid that's available here in the US, which is a combination of T3 and T4, as opposed to just being T4, which is not the active

hormone. That's what we see in terms of thyroid hormone issues. It's something that becomes more prevalent. It can be affected by so many things, like I just mentioned.

[00:20:55]

And also we're seeing a lot more patients, unfortunately, who have been exposed to toxins, either heavy metals like lead or mercury, or they're exposed to BPA or phthalates or some toxin in their daily environment for anything from their sheets to the cookware they're using. So there's so many things that affect the thyroid. I guess it's kind of that big domino that everything can push off, which makes things with thyroid much more complicated. But it's something that we always look at.

Dr Anu Arasu

Right. So that's a very big piece. And what about nutritional aspects? How does that relate to the thyroid?

Dr Neil Paulvin

It's a combination of things. We know that gut health in general is going to affect the thyroid because the gut's a big part of your immune system. So that is going to contribute to the risk of autoimmune thyroid issues by things like Hashimoto's. We know there's certain nutrients that you need. You need magnesium, you need calcium to make the thyroid work. So we want to make sure they're getting the appropriate amount of food that are high. Leafy vegetables, things like that, to make it appropriate.

There's a bigger debate about iodine, iodine based foods. You talk to a different doctor, you can get different answers from everybody on that. There's some patients that have an issue with gluten that may affect the thyroid as well. So we want to make sure they're getting the nutrients appropriate for the thyroid, and then if they have some type of food allergy or food sensitivity, that may play a part, but that's not the same for everybody. So nutrition definitely plays a part in how we control thyroid. And then you kind of put that all together in a really big picture.

Dr Anu Arasu

Fantastic. So, in summary, the thyroid is a really big thing, needs to be tested. It's common. And then if it's underactive, we need to look wider. So the gut, nutrition, toxins. Neil, I wanted to ask you a bit. I mean, we've covered the sex hormones. We've covered the thyroid. I guess that leaves one other big area. And I know this is probably going to be another hour that you could easily spend on this, but just briefly, what about the adrenals? From your perspective?

Dr Neil Paulvin

The adrenals, at least in the US, have become more and more controversial. There's a term out there we call adrenal fatigue that we know isn't totally real. The adrenals can be overworked from stress, toxins, and other damage. So we do pay attention to the adrenals. We're definitely looking at a fasting morning cortisol that will help us evaluate where they are.

[00:23:31]

You also want to do a four point urine cortisol where we're able to check the cortisol pattern throughout the day, to the peak in the morning, relax at night, because it definitely can affect sleep, it can affect energy, it can affect weight gain. So we definitely pay attention to it.

I check it on all my patients. I'll usually do both a morning and a four-point in cortisol in those patients. And also, it's another one of those big dominoes in the sense everything affects it. I mean, the one, like I explained to my patients, it's kind of a seesaw with a hormone called DHEA that men and women have, which helps with weight and sugar balance and helps your body make testosterone. So there's an issue there that if one is off, the other one is off. Like I said, it's like a seesaw.

We also know that, again, progesterone, insulin, other hormones are going to affect cortisol. So it's one of those things where it's not just, okay, take either some ashwagandha, or rhodiola, or phospholine to lower it, or ashwagandha, rhodiola to hopefully balance it out. If you don't fix the things that are around it, it's like kind of fixing the result and not the cause. It helps people in the short term because they'll have more energy, they'll sleep better, they may be able to lose weight, their brain fog may go away.

So there's definitely some relationship in terms of how your adrenals work. And we know it's definitely a relationship between the adrenals and the gut, and adrenals and your thyroid, and adrenals and the pituitary, where your major hormones are produced. Testosterone and cortisol... All based in your pituitary, your thyroid, all of that. So cortisol is definitely one of those things that's very connected, and it's something you definitely want to have addressed by your doctor.

The one thing I don't like is there's certain terms out there which aren't scientifically accurate anymore, but it's something that your doctor should definitely be looking at. And again, when you get a morning cortisol, it's a very small snapshot, while if you're getting the four-point, we're getting it all day, or for two days, you're getting the really big panoramic view of your gland function. That's actually a lot more helpful.

Dr Anu Arasu

Right. So the controversy is actually around the semantics, right, the words or the explanations we're trying to give, but I guess everyone's in agreement that stress is a huge factor in all of our diseases.

Dr Neil Paulvin

Exactly. Yes, it's semantics. And I think it was kind of the buzzword two or three years ago. Now, people... It's definitely a big piece of the puzzle, but again, it's just one of those pieces.

Dr Anu Arasu

Right? So looking at cortisol and DHEA, looking at the sex hormones, looking at the thyroid, looking at the insulin, this is really the foundation, from your perspective of getting someone back on track.

[00:26:24] Dr Neil Paulvin

Yes. Looking at all those things. Everybody uses the same kind of analogy. Hormones are a symphony. They all have to play together and work well together. It's a team. So if one is off, if one doesn't sound good, the whole orchestra is not sounding good. Again, I don't know if one of your lectures put up that big, huge chart that has from pregnenolone. We didn't talk about things like pregnenolone steal, Or where you're making too much of one hormone. So if one piece is off, that whole giant pathway goes off, and then you have patients who have low testosterone or low estrogen or their cortisol's off.

So you want to look at all the different pieces of the puzzle and then put it back together again, which is kind of fun, which makes it... Nobody's the same. It's not like, okay, you have bronchitis, here's your antibiotic, and you're done. Everybody's different. What works and what doesn't work. And trying to get down to that root cause is always fun when patients start feeling better.

Dr Anu Arasu

And this stuff is so common. I mean, I think that's the other thing, isn't it? It's so prevalent and really from quite a wide range of ages. Why do you think more people don't know about it?

Dr Neil Paulvin

Again, I think the combination of issues, I think one, doctors don't talk about it. Doctors are more in treat after rather than a prevent before type thing, I think that's number one. I think most doctors don't know how to deal with it or don't want to have the time, or the knowledge base to deal with it appropriately. Like I said, everything's connected. So it's not just, okay, I'm going to fix your thyroid. You have to fix all the other things that go along with it so they don't have the knowledge base or the time or both to do that.

I think some patients, like I mentioned before, just don't want to talk about it, again, if it's sexual issues or... When a patient comes in and talks to you about fatigue, again, that could be 1000 different things. So it's kind of like, okay, where do I put my efforts? You can't... So you need somebody who has a holistic view, has the time to spend with patients, not at least in the US, when you see the doctor for seven and a half minutes, they're not going to be able to do a really deep dive. They're not even talking about, oh, how's your workouts? Or how is your sexual... It may come up once a year in your physical.

So I think it's totally a combination of things. And again, I think also there used to be some shame in starting on these medicines. I mean, thyroid is pretty mainstream at this point, but if a woman was on hormones like estrogen or progesterone there was kind of a stigma to it. Men and testosterone ten years ago was bad and now it's like, oh, look at me, I'm on all this testosterone, look what my number is. Again, the paradigm has kind of flipped a little bit. But again, I think what's great is now becoming a major part of the conversation in people's health, which is great.

Dr Anu Arasu

What do you think is the future of aging? This is a really big question.

[00:29:18] Dr Neil Paulvin

There you go. There's a whole-day conversation. I think the future of aging is a couple of different things. I think the future of aging is definitely personalized medicine like we kind of talked about the whole time here, is that patients are going to test everything. I know my patients, I'm amazed. Now I have patients asking me for tests that I never thought they'd want or go through and they want more and more data and that's important. Again, they also want to prevent things. That's number one.

I think we're leading towards a very futuristic aging system where we're going to be doing things like gene therapy and people are talking about doing 3D printing organs in ten years and having new skin. I mean, that's kind of like terminator type stuff or Sci-Fi stuff that may actually come to fruition. And I think aging is going to be that almost everybody will have available to them, a program where they can not only live to a higher age-long, they're going to be able to live healthier. And that's kind of always been the goal. How we practice is it's about your health span.

It's great that you get to 99 years old, but if you're hospitalized for the last 20, maybe wasn't done the right... Maybe it's not the best thing for you. So I think there's a lot of pieces to it. I think things that we had kind of just postulated about are coming to fruition, which is great.

Again, it takes the patient to want to do these things. Nobody talked about VO2 Max. Nobody talked about zone exercise three or four years ago except, like, exercise scientists. And now everybody's on their wearable looking. Okay, where am I doing now? And again, I think people like Peter Attia and Andrew Huberman are kind of leading the charge there, and it's great that they're able to get the word out so people are interested again, and they're educating their doctors, which is good, and also kind of has kind of a shame at the same time.

Dr Anu Arasu

So the first step is that people are going for the tests, and that, I suppose, is a fundamental part of medicine becoming personalized. How important are hormones in this piece?

Dr Neil Paulvin

Hormones are... The most important piece is what I tell everybody is lifestyle changes. Obviously, sleep, exercise, diet. That's the core of everything we've been talking about. I can put anybody on any hormone. If they're sleeping 2 hours a night or never go to the gym, it doesn't matter. But then after that, hormones are very important.

Hormones are literally the lifeblood of how we function. I mean, again, they make your brain work. They make your brain work. They're going to help the heart work better. They're going to give you energy. They're going to lower your blood pressure, so they're going to help you be healthier and live longer. So it's something that you need to adopt the core things and then also do the lab work and the data to optimize them as best you can.

And again, it's become much easier. At least in the US, you can get at home testing for a lot of these things. Don't have to leave the comfort of your home or your office and get them done. You could do an online telemedicine call. And you have no excuse now to not optimize your health and your hormones.

[00:32:29] Dr Anu Arasu

Right, because I think it's taken us a while to get our heads around what aging actually is. I mean, there are some aspects, aren't there? There's kind of this frailty, there's loss of muscle mass or sarcopenia. But yeah. Could you summarize for everyone out there, what is aging and why these basic things help?

Dr Neil Paulvin

Okay, let me try to do this. Actually, aging is a lot of things. Aging is a combination of probably three things. You mentioned two of them. Aging is again maximizing your lifestyle. Aging is maximizing your cellular health and your hormonal health. I mean, we didn't talk about things like autophagy and zombie cells or senescence. We know all these different things affect aging. We talked about stress. We didn't talk specifically about oxidative stress, but all those different chemical processes.

You have to think of your body like a giant factory. And if part of that factory or part of that production line is not working, that affects everything else. You want to not only make sure everything's working appropriately from a cellular level up, but you also want to make sure that you repair and replenish things by fasting or taking supplements or exercising or going in a cold plunge for three minutes. All those different things replenish it.

So aging is down to that cellular level. And then you mentioned things like things that we can see and measure. We can look at your abdominal fat, we can look at your grip strength. We're going to look... Now the bigger buzzwords are sarcopenia, which is the muscle loss that we start having in men and women after the age of 30.

And we're adopting treatments again, two or three that we mentioned throughout the course of the talk here. Female hormones, male hormones, thyroid. We want to optimize growth, among other things out there. And then the other part is going to be... The other part of it is just, like I said, the things that we can see and optimizing your brain and your gut.

If your brain is not working, then you're in trouble to begin with. And we're luckily walking down the pathway now where we can hopefully prevent brain aging as opposed to treat it, like unfortunately, when somebody has a problem. So that's going to be the future. Like I said, in terms of everything from supplements to hyperbaric chambers to IVs, there's so many cool new things that are coming out that can treat everything from your hormones to hopefully limit the aging in your brain. So aging is a fun future ahead for us.

Dr Anu Arasu

Wow. If there is one, what is the one take home message that you wish people would implement today?

[00:35:15] Dr Neil Paulvin

Take home message would be, actually, I'll split to two. Number one is like I've talked about the whole time. Make sure you're working with somebody who can test and develop a plan for you. And also your goal is to be... Everybody has to be proactive about their own health.

Make sure you're living a healthy lifestyle and then find the people who can help you achieve what you want to do health wise. If that one doctor you're working with, or whoever that is, is not working and you feel you're not at your best, find somebody else. You have a world out there now via the Internet to find a doctor. Social media, maybe not so much. You're not going to always find your doc on Instagram or TikTok, but that's the main goal that people need to understand that they can address almost anything now.

Dr Anu Arasu

Fantastic. Neil, where can people find out more about you and your work?

Dr Neil Paulvin

Sure. The best two ways are my website, DoctorPaulvin.com, which is doctor spelled out Doctor. And then I have on that there's a blog that I put up a lot and then Instagram. For some reason, Instagram is where I put a lot of other information up as well. So those are the best two places to check me out.

Dr Anu Arasu

And anything you're working on at the moment, any projects coming up?

Dr Neil Paulvin

Right now we're working on a larger health optimization program where we kind of will give you everything either in person or throughout the... Right now, the US and some people internationally. And then we're trying to get a course together so people can at least learn some tidbits that they want to learn about. But that'll hopefully be by the end of 2024, so that's a little bit further down the line.

Dr Anu Arasu

Fantastic. Thank you so much for today.

Dr Neil Paulvin

Oh, it was great. Thanks for having me on. It was fun.

Dr Anu Arasu

Thanks a lot.