

HORMONES: How to Balance & Manage Yours - A Top 10 Episode with T.S. Wiley

Announcer:

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Dave Asprey:

Today's guest is T.S. Wiley. She's an author, a medical theorist, and a researcher now based out of Santa Fe, New Mexico, the state where I grew up, and she wrote a couple of books that were so far ahead of her time, that I had heard incorrectly during my interview with Dr. Mercola actually, that she'd passed away. So I actually told a couple of episodes like, "Oh no, T.S. Wiley is dead," and I have proof for all of you now that she is not dead, because she's here with me. She wrote these two books, one was called *Sex, Lies, and Menopause: The Shocking Truth About Synthetic Hormones and the Benefits of Natural Alternatives*, that was in 2003. And since then, she came up with something called the Wiley Protocol, where it's very carefully timed applications of bioidentical hormones. So T.S., welcome to the show.

T.S. Wiley:

Thank you very much. I was stunned to find out I was dead that day, and I checked with a few people, they said, "No, no, you're not dead."

Dave:

You are all over the place in terms of your research, and this is also a compliment, in that you look at female hormones, you look at male hormones, you've looked at inflammation and autism, you're looking at cancer, and now you're doing a lot of work on how the microbiome talks to the brain using sex steroids. And on the show, I've talked to Mark Gordon from USC, who's referenced some of the stuff about what testosterone does. I know what thyroid and testosterone did for my own brain in my mid-twenties when I had basically none of either of those. And so, you look at all these different problems with a lens that no one else that I've come across has. Why are you like that?

T.S. Wiley:

I was working on endocrinology, and the fact that everything's in a wave. You're seeing me in a wave, a light wave. You're hearing me in a sound wave. Everything about the environment is reported to the nucleus of your cell, and now I will tell you to your microbiome, in waves. So that's why the hormones I created are in a wave for men and women, because that flat line is the thing you see on a TV show when you're dead, right? Nothing's flat, everything's moving, right?

So how I got interested in crossing disciplines, which was your original question, is endocrinology led to molecular biology, led to genomics, and oncology was in there, and I was working with an oncologist at Sansum in Santa Barbara, Julie Taguchi. And all of that led to epigenetics, and I gave lectures to doctors until three years ago, and I'll probably start again. I'm working with a company called InnoVision for CMEs, and those lectures are two days in a planetarium. Everything in my head is connected, and you can't explain one discipline separately.

Dave:

Epigenetics, Bruce Lipton's work in the field was another-

T.S. Wiley:

Brilliant.

Dave:

... big shaper for me. In fact, I just saw Bruce two days ago before I'm recording this, and the idea there is that these bacteria are going to listen to the environment around them, and since now we have technology that lets us change our environment, we can change our hormone environment, we can change our nutrient environment, we can change our light environment, our temperature environment, our vibration environment, our everything environment, if only we know what to do. Those little guys, we can trick them. And in fact, that's the definition of biohacking, change the environment around you and inside of you, so that your biology does what you want, and if you want to have healthy hormone cycles, you want to live a long time, you want to get swole, I'm targeting 180 years old. I'm going to trick those little guys into helping me live that long, because they won't know what's going on, they won't know what hit them, and who knows? At least, that's my plan.

T.S. Wiley:

Well, those alien voices in your head that say, "Walk over there and kill yourself," or "Isn't she hot?", [inaudible 00:04:07] bacteria.

Dave:

They are, yes.

T.S. Wiley:

Yes, and if you don't have the reproductive hormone rhythms, they're pretty sure you're useless. And what I figured out and gave a lecture about was when a woman's estrogen should go through her liver and be deconjugated and broken into E1, E2, E3, and go out and feces and urine, it doesn't, if she's not young and healthy. There are four or five groups of bacteria called the estrobolome, unfortunate name, that take the estrogen and put it back together and send it back into circulation. The one that mostly ends up staying is E1 in the breasts, and that's part of breast cancer. So when you want to hack, I would tell you first, know they're in charge. Second, a little homage, timing is everything. They want you to get up when the sun comes up, they want you to go to bed no more than two hours after dark. They want you to eat in season, depending on where you live, and your family's ethnic heritage is a microbiome that you carry with you.

Dave:

Yes.

T.S. Wiley:

So you have [inaudible 00:05:23], and I have my own, okay?

Dave:

Why is it that we seem to systematically work to break that system? We're spraying glyphosate everywhere that disrupts soil bacteria, we're putting all sorts of pollutants out there, we're taking antibiotics, we are also breaking these cycles. Is this a subconscious fight against the man, for lack of a better word, or is this just unconscious behavior?

T.S. Wiley:

Or is it them telling you, "You're not worth anything. Go ahead?" So, what you hear, and whether it's, "Go spray my lawn with Roundup," or whether it's, "I better run to the doctor, my throat hurts, and get some antibiotics," I'm not sure it's your voice.

Dave:

No kidding. So maybe they're like, "These big meat puppets we made are running rampant, let's knock them out." I want to tell a little story. When I'd read your books, and I first met you at the American Academy of Anti-Aging Medicine, somewhere around 2001. Actually, the first time I'd ever gone. I had just started running an anti-aging nonprofit group in the Bay Area, and this was somewhere in the Bay Area, and I went and said, "All right, I'm going to get to meet you." I'm walking around, there's all these superstars of anti-aging that no one's heard of, and I'm in line at your booth.

T.S. Wiley:

No one's heard of. That was the best part. That's no one's heard of.

Dave:

Well no, I mean, at the time, 20 years ago-

T.S. Wiley:

I know.

Dave:

... anti-aging people were wacky. If you were to say, "I'm into anti-aging," people thought you were completely just crazy, and now we're like, "Actually, there's billions of dollars of research, we're going to work on this." So at least it's socially acceptable to be willing to live longer. But at the time, there's a gynecologist in line in front of me to talk to you, and she says, "Oh, I'm on your protocol, T.S., and I feel so good on this, and it totally works," and you go, "Oh, great. You're using it with your patients?" She goes, "Oh no, I can't use it with my patients, blah, blah, blah. It's too complex, and regulatory, and fear," and all this, and it was one of those first experiences with me that showed me that wait, doctors sometimes know stuff, but they won't do it with their patients because they're afraid of losing their license. So, and you were a little pissed, to be honest, and you were like, "What the hell? Seriously? How is that even ethical?" And I actually agree with your point though.

T.S. Wiley:

Yes, I am very clear that I expect the doctors to step up, and if they want my help or they want to be able to call me and ask a question... I think I told her to get out of line and let somebody come who had a real question, okay? Because if she wasn't going to help anybody else, I wasn't going to help her. It was just like that.

Dave:

It's one of those situations though, where sometimes physicians, the good ones at least, I think are willing to experiment on themselves. Some of my very favorite doctors are like, "I won't do anything on a patient I haven't done on myself," other than surgery, because you're not going to do that on yourself. But if it's an anti-aging or restorative regenerative therapy, they're like, "I think I should experience this

and look at the side effects and the felt sense of it," and I respect the heck out of that. So I'm hopeful that there's been a big shift in the last 20 years. There's still mainstream medicine, but there's now focus groups of doctors who are willing to go outside the box, with some personal risk to do it. But tell me about the Wiley Protocol that worked for this gynecologist.

T.S. Wiley:

The reality is I had a hot flash, and I didn't like it. My youngest daughter was three, she's 26 now. And I thought, "What the hell was that? That's crazy." And preceding that for about three or four months, I remember being in bed with my husband and thinking, "This would be what it's like if I had a brother," because I don't have a brother, and I thought, "What the hell happened to my libido?" Because I have a raging libido, and it was just gone one day, and I thought, "I need hormones. I got to figure this out."

So I read everything I could, and nothing made sense, and I basically went to the notion that if you were going to put back something that you'd lost, like insulin in a type 1 diabetic, you would want to put it back the way you had it. So I went to gynecology books and I went to all these books that showed a woman's rhythm, in a healthy 20 year old woman. So I knew I wanted it to be transdermal, I knew I had to figure out a dosing schedule. I found something that was 20:1, one milligram of estrogen to 20 milligrams of progesterone. I figured out how every three days, every 72 hours, there's a receptor rollover, steroid receptor rollover. So every 72 hours, you make new ones. So I changed the dose every three days. You build it, and they will come. And I made the tipping points. I made day 12. Lots of things happen on day 12. Day 12 makes you a progesterone receptor. Day 12 spikes LH, so you would ovulate, if you were young. Day 12 hits G1 arrest, everything stops growing in the lining of your uterus, your breasts.

So I had a model. "I'm going to be 20 again inside. I'm going to put it in on my skin and hope it absorbs it," then I figured out dosing should be as it is in the body, 20:1, and progesterone doesn't even start until day 14. The progesterone that you get, hydroxyprogesterone, is from your adrenals, day one to 14, so that's different. And then I had to put it in something. I made a very strict dosing schedule, very strict delivery method. I ended up putting them in three mL syringes because you could go one line at a time for one milligram or for 20 milligrams. And I color coded it, because old ladies are tired at night and you don't want to grab the wrong color. And then I got a third-party tester. That's how I did it. I mimicked nature. It's called biomimetic bioidentical hormone replacement, and I did the same thing for men.

Dave:

You talk about doses of hormones to mimic about what a 20 year old woman's hormones would be, and that means that perimenopausal and menopausal women can reestablish regular periods, and is that a good thing? Is that the way you want it to work?

T.S. Wiley:

Young, healthy women have three states be in. They can be pregnant, they can be breastfeeding, or they can be menstruating. Now, I could not recreate pregnancy and breastfeeding, don't think I didn't try. Okay? So I thought it was a pretty good plan, and when you ask about a period, you have choices as a woman. You can have a period, or you can have a walker.

Dave:

You're in your mid-sixties. Do you still experience that level of energy at all?

T.S. Wiley:

Yeah, I do, but I'm on more hormones than a transsexual. You have to understand, I have a thyroid protocol, which is an inverse curve to the estrogen. I have an HGH dosing protocol for men that you can use a Novo Nordisk pop click for. Men need growth hormones so much. Women, not so much. Women make growth hormone in their liver, if they have enough estrogen. Men run out at about 29, and it just is fumes past that point, it gets worse, and it's part of prostate cancer.

So I have at my disposal 58 or 60 pharmacies that compound. So when I create an idea or a drug and again, I'm the crash test dummy and of one this study, I will say, "I need you to make me this," and then I will go to one of my doctors. We have 520 some doctors who prescribe and say, "Would you prescribe this?" And sometimes it takes me 10 doctors in to get somebody to go, "All right." It's like, no guts, no glory people. You're going to want this stuff in 10 years. Just let me invent, okay?

Dave:

Now, talk to me about metformin. Metformin is a very common anti-diabetes drug, and it's also been used for anti-aging for quite a while. And I took it for about three years when the first research came out about life extension and Glucophage, and I ended up not taking it. In fact, one of the-

T.S. Wiley:

Why?

Dave:

Well, I looked at the decline in mitochondrial function, about a 30% decline from it, and a resistance of vitamin B12 that come from taking it at least orally. So I decided, I can mimic the effect, there's some herbal stuff called AMPK, is it gymnema sylvestre, just from memory. And I said, "I can get the AMPK signaling from this stuff, similar effects without the suppression of mitochondrial function."

T.S. Wiley:

But I want you to think about what you just said, if you have my work there and I think you do.

Dave:

Yeah.

T.S. Wiley:

I presented a paper on mitochondrial function and hormone response. And of course, in the cells that make hormones, if your mitochondria are dying, you're not going to make hormones. But if you put hormones back, then the mitochondria will make you more hormones. So the circle. It's one of those things.

Dave:

This is what's so irritating. Everything is a system, and you get these researchers who are like, "I'm going to isolate all these variables," and they isolate 10 variables they thought about, and there's 100,000 other ones they didn't think about, they didn't isolate. So yeah, I've seen no data that says if you have adequate hormones and Glucophage, that it does the same thing. So if-y.

T.S. Wiley:

Well, I would tell you Glucophage is French white lilac bark. It's not a drug, and being French white lilac bark, it's a salicylate, like an aspirin. So there's, well, let's say anti-inflammatory potential, and I think 10 years ago, the American College of Nephrology came out and said, "Everybody over 40 should take Glucophage to prevent kidney failure in old age."

Dave:

All right, I have two more big questions for you before we get to the end of the interview. One is I'm a guy and I had zero thyroid, not zero, but near zero, very, very low thyroid, and very, very low testosterone, lower than my mom when I was 25, 26. And I've been on testosterone replacement, bioidentical stuff in various forms ever since. I took three years off when I was doing The Bulletproof Diet research, just to see what the impact and I found if I was really careful, I could get it up to about 750 without supplementing, but that the supplementing really helped. And what should guys do? And tell me about guys who are 30, guys who are 40, guys who are 100. What does the Wiley Protocol do that's different than, "Hey, take some thyroid, take some testosterone?"

T.S. Wiley:

Well, first of all, the Wiley Protocol was testosterone and DHEA separately, because DHEA makes androgen receptors faster. So then when you use the testosterone, you don't wait six weeks to feel it, you feel it in six days. So it's a dual therapy of testosterone and DHEA. And I believe men, knowing your expiration date is something like 35, 40, at about 29, should use growth hormone, but you should use it in a rhythm. And the rhythm I came up with for growth hormone is based on the fact that growth hormone receptors are made by estrogen, and in men, testosterone has to convert to estrogen to make a growth hormone. So we had to count the days, and we had to figure out how you'd throw that in.

So men need growth hormone, they need testosterone, DHEA, most men, to stay uninflamed because as I said, there's two immune systems. There's the one in your gut that is defense that keeps their cousins out, right? That keeps you from getting a cold, it keeps you from whatever. And then there's the one that belongs to the [inaudible 00:17:43], also unfortunately in your gut, and in every plant, and everything, and that's autoimmunity, and that's what takes you out.

So men, to be taken out, whether it's heart disease, which is commonly known in men, or it's prostate cancer, or it's lung cancer, should they have decided to smoke for no good reason, I mean, everything is inflammation. High blood pressure is in fact, inflammation in men.

So I would tell you Glucophage, metformin, those things are all good immunosuppressants. If you can get your hands on it, rapamycin's better, Rapamune, no more than two milligrams.

Dave:

Would you combine them?

T.S. Wiley:

I would take all of that. So your libido can be controlled by that bump. Well, you want things, and you sit around and talk about your last kill. Do you know, a new study just came out, and 80% of the food supply in a group comes from women, not men? And of that 80%, 70% of the 80% comes from grandmothers.

Dave:

Interesting.

T.S. Wiley:

They go hunting. Okay? That's how it works. The mother hunts until she has two children, and then grandma takes over. First child, she's still hunting, because she can tie them on her back.

And melatonin, I take melatonin before I go to bed, I take seasonal melatonin, that of course I invented, and it's in a cream, and it's transdermal, which you don't get very often. When you put it under your tongue or you chew it, anytime you swallow it, it's going to go through your liver and it changes it. And more importantly, it's a bolus, and you want this to last you most of the night, because melatonin blocks estrogen receptors in the beginning of the night, so they pop back up and you can stay asleep all night, if you're a man or a woman.

Dave:

I'm going to ask you an unusual question. Why aren't you using it rectally instead of transdermally? Because doesn't it absorb better without all the side effects?

T.S. Wiley:

It's too fast. Too fast.

Dave:

Too fast? All right.

T.S. Wiley:

Yeah, there's no side effects transdermally. What you want is a depot, it could be a tricep. I mean, I don't tell people to put things on their legs, because each fat pad has a different hormone production of its own, and response.

Dave:

I changed the way I dose my testosterone. I used a cream for a long time, and creams are annoying, because well, if you're a guy and have hairy armpits, you get a greasy thing. They absorb on the scrotum or the armpits really well. And also, I have young kids. I didn't want to get testosterone residue on my kids from my sheets, or from things like that. So I thought about it and I swapped, but I feel like the cream did work better. So how do you keep your hormones from getting on other people?

T.S. Wiley:

I think it's pheromones, than a contact high.

Dave:

Okay.

T.S. Wiley:

I believe in the work Evan [Cotter 00:20:35] did at the University of Chicago years and years ago, about taking a pad, rubbing it under the armpit, and then under the nose of the woman next door. These were women, and they all cycled together.

So the Wiley Protocol for men, the DHEA goes right above your kidneys in the back, the dose, the testosterone goes right on your femoral artery, and yes, of course, it's going to get on your scrotum.

That's a bonus, okay? And a little on your thigh, and that's where that goes, and we don't see a lot of testosterone... I mean, we check. I have 520 doctors, and people are supposed to report adverse events, let alone serious adverse events, like somebody got cancer, or somebody dropped dead, or whatever, and we've kept track of that stuff for 20 years, and you could use that.

And you're in a t-shirt, I don't know. I mean, I suppose that could cover your back a little bit, but you don't have to sleep naked. You could put some clothes on it, it wouldn't hurt them. You don't have to worry about a contact high. Hormones absorb in 40 minutes. So you could take a shower, you could go to bed, you could whatever, but exercise, you can sweat them back out for two hours. So if you put them on and then immediately exercise, you'll sweat them back out, so.

Dave:

That's good to know. All right, next up, and we're short on time, so I just want to talk about Sleep, Sugar and Survival, and Lights Out, and your work there. It was really groundbreaking, and last year I got to go to Satchin Panda's lab at the Salk Institute, and look at a rat mitochondria in the eyes, the melanopsin sensors. And this was such a big thing, because of your book, I started experimenting with blacking out my room, taping over LEDs and all these things, and I measured a difference in my sleep. And I ended up starting a company that makes patented glasses that are four layer spectral filters that block every spectrum of light that signals to your SCN that's daytime. And when I use my aura ring right here, I find I can double my deep sleep when I use the glasses before bed for a while.

T.S. Wiley:

So the contract is coming for my cut of the glasses, right?

Dave:

Exactly, right.

T.S. Wiley:

No. No, not really. Okay. Just thought I'd ask. It's always worth a try. Yes. I said, in Lights Out, please wear pink or red sunglasses, because spectrum changes, there's a famous man named Ott, O-T-T, and he did very good work on spectrum changes back in the '70s. And it turns out that black to pink to blue, so it's nighttime, and then it's dawn, and then it's daytime, changes your cortisol reception.

Dave:

Yes.

T.S. Wiley:

Well, the same way blue to pink to black changes your cortisol reception and gets you ready for bed, turns it all off. So if you're not going to go to bed when it turns pink, and most people are not, your glasses should be worn at that point. All your computers, electronics, if you can't turn them off, and I question whether you can't turn them off, should have blue light filters on them that are on timers that turn on whenever sunset is. And that's why when you're out in your car and you're driving and the sun's going down, you start yawning and you can't figure out why, that's the window for going to sleep.

Dave:

Yeah. And I've noticed, I am a night owl, I always have been, and I've noticed that if I stay up, especially if I'm writing books, I just like that quiet time, and I do it in a spectrally compliant [inaudible 00:24:29]. It looks like a submarine or a hooker's den where I'm writing, because it's only red, my monitors are red, but if I see a little bit of sunrise, even before the sun comes up, I can't sleep. But as long as I keep it dark, I go to sleep, and I sleep and I go through cycles and it seems to work for me, although who knows? Maybe-

T.S. Wiley:

You could've said "darkroom" instead of "hooker's den," I'm just saying. Okay?

Dave:

Well, everyone tells me that I have red lights everywhere. They're like, "Dave, it's a red light district. Come on, man."

T.S. Wiley:

No, but remember the old darkrooms, just the red lights?

Dave:

Yeah, but-

T.S. Wiley:

When you did your own film?

Dave:

Right, but almost no one listening remembers that. I mean, I know my dad might've had a darkroom. I saw a darkroom, but we all have digital cameras now.

T.S. Wiley:

My husband had a darkroom. He loved developing pictures. It was like magic.

Dave:

It's a lost art. Well-

T.S. Wiley:

Well, a lot of magic is gone.

Dave:

I have one more question for you, T.S.. If someone came to you tomorrow and you didn't know much about them, and they said, "Look, I want to perform better at everything I do as a human being," what are your three most important pieces of advice for me? What would you offer them?

T.S. Wiley:

Get up at dawn. You have to get up when the sun comes up. That will immediately change not only the bacteria in your gut, you want to hack them. You get up at dawn, you walk 10 minutes watching the sun

come up, and you've changed cortisol and a multiple of hormones and bacteria for the whole day. You need to go to bed about two hours after dark, even in the winter, when it's dark at five o'clock. I'm sorry. You eat an early dinner, go lay down. I used to tell people to read Lights Out. Your eyes going back and forth, I can put anybody to sleep. It's hypnotism to read a book.

But you have to have hormones, you have to have sleep, and you have to have physical contact, you have to have love. And those old ladies who slept with their dogs were missing something they wanted. But without a physical relationship, without sleeping with something alive, and I don't mean your turtle, all of your body doesn't do what it's supposed to do, and human beings never slept alone, they slept in piles. They slept in tents, they slept with children. And I would tell anybody, of course have children, if you're not too old. And if you're too old and you want to be like my friend, Madonna, you can adopt some. She's a good grandma, she's doing fine.

But you need people and physical contact, and to respect the light and respect the hormones, and you'll feel so much better, no matter what's wrong with you. If you get up at dawn... That was my first question in Lights Out, because I knew about the carbohydrates and I figured out prolactin and how it affected brooding, and all that stuff. And my first question was I grew up on a farm, and all those 97 year old farmers lived on pie and bacon, which is a gateway meat, right? A gateway meat. And I thought, "How did they live to 97?" And then I remembered they got up at dawn, and they crawled in bed because they were tired from being on the tractor all day.

And who was it? It was Delgado. Delgado said, "Well, I like to exercise. I take my shirt off and I go outside and lift weights," and I said, "Dude, way too much information. Nobody wants to see you with your shirt off." And he sort of looked at me and I said, "If you want to exercise, go build a boat." He said, "What do you mean?" I said, "Build a boat." I said, "I don't care if you ever get in it. Give it to somebody," but your work must have purpose, and the purpose is not your muscle physique. The purpose is doing something for somebody else, and I would tell them purpose is very important.

Dave:

Purpose. Beautiful. Well, T.S. Wiley, thank you for your unusual brain and your amazing work over the years. I think you've consistently been ahead of your time, and I'm happy that you're not dead. And people-

T.S. Wiley:

Me too. Me too. Me too. I think Mercola's going to be a little down, but I don't know why he made that up. I saw him too, but it's okay.

Dave:

Well, people make mistakes or, or whatever, but I'll make sure he knows you're alive and-

T.S. Wiley:

Can we call it wishful thinking? I mean, it's not quite a mistake.

Dave:

Well, people can find your work at thewileyprotocol.com, that's W-I-L-E-Y, and we'll link to it in the show notes and on the blog, and things like that. And thanks for being on the show.

T.S. Wiley:

I had a wonderful time. You're a lovely man, and you're doing good work. I'm impressed. I looked at all your stuff that you're hustling, and most of them won't kill anybody, and it does some good.

Dave:

All right.

T.S. Wiley:

That's pretty remarkable. That's about as good as it gets for me. Okay? That's pretty remarkable.

Dave:

I appreciate that, and those are definitely standards I live by. So thank you.

T.S. Wiley:

Oh.