How Hormones Care For Your Heart, Brain, And Wellbeing Transcript

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Introduction and Background

Welcome, Dian. I am so glad that you agreed to be part of this interview. Now, what I'd like to have you do is introduce yourself to our audience, and then we'll begin.

So the short story is I'm a New Yorker who got my M. D. in New York and did my OBGYN training in Winston-Salem and delivered babies for probably about maybe ten, 15 years when I turned 40.

The Women's Health Initiative came out and women, my older patients began to struggle with hormone replacement and aging, and there was nothing there available for them.

So a little pharmacy next door introduced me to bio identical hormones, which took me to the American Academy of Anti-Aging, which introduced the whole world of functional medicine to me.

So I did a combo OB-GYN delivering baby functional medicine practice until about three or four years ago. And now I do full time functional medicine to really fill that space of the kind of aging female who sort of doesn't have the time, whether it be Gen two, to figure out what's the best thing to do to protect her bones, her body, her brain, etc..

Okay, this is excellent. And get everyone who's listening who has multiple sclerosis or other neuro immune conditions. We we because of the Women's Health Initiative, began to think that hormones would cause breast cancer and women quit taking the hormones.

From my perspective and I'm going to hear well, let's hear your perspective. Ah, yes, the Women's Health Initiative. A reason for us to be afraid of hormones because of breast cancer.

So not at all. The Women's Health Initiative was a look at how can we supposedly keep women healthy. As women started to age.

Why the Women's Health Initiative Was Misunderstood

The problem was, number one, they used estrogen orally, which is very, very, very difficult on the liver. Number two, they used premarin pregnant mares, urine.

They didn't use a bioidentical natural estrogen. Number three, the problem was the average age of the woman in the Women's Health Initiative was 63 years old.

They had been off their hormones for over ten years. 50% had been prior smokers. And one of the big issues with hormone replacement is when you when you hit menopause, you actually get, as you know, more inflammation.

So you get blood vessels that start to get harder. So when they took these women that probably had plaques and other issues that developed and now they gave them oral estrogen, all of a sudden they saw loosening of the blood vessels, like the blood vessels got healthy again, boom.

They dislocated some of their plaques and they saw a questionable little increase in heart disease and stroke. When they compared the groups that got Premarin and not progesterone, they got progestin, a fake progesterone.

And people interchanged that all the time. I'll hear people say, oh, the Women's Health Initiative, they gave them estrogen and progesterone. They didn't. They gave them progestin.

It's the same concept is what's in birth control pills, not your natural progesterone. That group, supposedly after five years, had more breast cancer, which is why they stopped the study.

But the truth behind it is that they didn't compare those women to the average population. They didn't say, okay, what's the breast cancer risk of average lady walking down the street?

They compared them to this distinct group that had been on hormones prior. All you needed was two years of hormones to be considered a placebo. So they actually found that this group of women had less breast cancer than even the average group.

So yeah, I always say it's like if you run a eight minute mile and you but you're running against people that run a six minute mile, somebody is going to go, Oh, you're slow.

Well, you're not comparing you to everybody that runs. So it was a skewed luck. Problem number two is that the estrogen only group had less breast cancer.

So how do you explain that estrogen is going to give you breast cancer if the group that just took estrogen got less cancer? So the whole study is unraveling.

There's hours and hours you can listen to of people that talk about why you can't count on that study and what I think unfortunately happened. Right. Roll back. That's 2002. That's 20 years ago.

Panic attack. Everybody throws their hormones out. Nobody takes them. But we know how important hormones are for brain. So let's stop for a moment. So, everyone, the big message there is the Women's Health Initiative is not a reason to be afraid of estrogen for heart disease or cancer.

And now we're going to dove into why estrogen is so important for protecting our brain. So with that, why why is it important? Because I'm in my 67. I'm 67.

If I was not taking hormone replacement therapy, what would be happening to my brain? So here's a really good way to look at it. When you are in puberty, right, your ovaries wake up and your brain is immature.

Your brain doesn't mature right till about 21 days in sleep. And at that level tell us that the brain really doesn't mature till 21. So when you're in puberty, you've got kind of crazy hormones going all over the place as your ovaries wake up.

And at 21, when your brain matures, it turns to the ovaries and it says, Do what I tell you when I tell you. And that creates. You're obviously in a cycle, right?

The ovaries afraid. Listen. So that would be comparable to you buying a house, paying your mortgage, paying your taxes, paying your food bill on a certain salary, and you live your merry life along that way.

Well, your brain does that with hormones. This nucleus says, give me my estrogen and I'll be able to get your sleeping. This guy says, Give me the estrogen and I'll be able to get the mitochondria working.

So I'll be able to give you energy and clean up the garbage. This guy says, Give me estrogen and I'll be able to make your memories. It's fuel for the brain.

So the same way you're paying your bills and you're not in trouble, your brain's the same way. Well, what starts to happen? Some people late thirties, most early forties.

It's the brain gets older.

How Estrogen Supports the Brain

The DNA in the brain doesn't work as well. So that overlooks up at the brain and says, I'm not afraid of you anymore. You can't tell me what to do. And the ovary will fluctuate in estrogen.

So it would be like somebody coming along to you and going, okay, I know you have X number of dollars to pay X number of bills, but I'm cutting your salary in half and I'm not changing your bills.

So now the brain has less money to pay its bills. It has less estrogen to run the same system. You're not saying, oh, I'm 52, oh, I'm 58 or I'm 66, that I'm not going to think as much.

Right. We want to we want the same guys in the brain to work just as hard. Well, what starts to happen? Two things. Number one, the brain doesn't get the energy it needs.

So the mitochondria use estrogen. They don't work as well. So your brain energy goes down. So you can't make your spots. You can't clean up your problems right.

When you sleep at night, you pull the trash out. You can't do that without energy. Number two, now that we really have literature that's and science that can look at the brain.

And one of the things they're finding is these inflammatory vesicles that are only in the ovary, also in the brain of the late perimenopausal menopausal women.

So I kind of have a visual that is the ovary is failing. It's bombing firecrackers at your brain. So inflammation increases in the brain. So the cells can't do their job.

You don't like in the case of M. S.. Right. That the cells have to remake that myelin and keep the nerves healthy. Well, you can't do that while you're getting grenade in with inflammation and you don't have enough energy.

So the system just slowly starts to get into trouble. And what we're finding is not only is estrogen now going to get through the blood brain barrier and fuel the brain, but it seems to plug some of the areas that the inflammation gets into.

So the blow up of the system, if you would, decreases. And that's why people talk about, oh, only after ten years go off hormones or after 15 years. I just can't imagine why you would stop that, because why would it change at 65 or 70 to any different than 55?

So let me reiterate what I think I'm hearing is that young woman I have plenty of estrogen. My brain's working well. I hit menopause. I begin to make less estrogen.

Now my brain is struggling. I quit having periods. Now my brain is going to struggle a whole lot more. The conventional approach is no, no hormone replacement.

Just deal with the hot flashes and get. And that if I do that, my brain is going to shrink. My memories will be less effective. I'll probably have more fatigue and more sleep disruption.

If I came to see you. You would tell me that I could avoid all of that by doing some type of hormone something. So what? What happens? So what? What's the big problem in hormone replacement?

Is that the traditional medical paradigm says either don't take anything or I'll treat your hot flashes, and I'll just give you the lowest dose possible to treat your hot flashes.

And they don't test they don't look at numbers. They don't look at you. What's going on in your tissues. They just give you a little bit of estrogen if you're miserable.

So how how would someone test. So so what we think happens is that estrogen in blood is pulsatile, so it fluctuates. So testing baseline estrogen levels in blood.

I don't do what really you can do initially if somebody doesn't feel good is you want to say how much is the brain screaming at the ovary to continue to listen and we check something called the follicle stimulating hormone.

So I always check the FSA because the FSA less than 15, 16 means that the ovary brain connection is reasonable and you've probably still got some fluctuating ovarian estrogen.

The second thing I do is I look at salivary testing. I don't think it's the be all, end all. But the concept is, is that your ovaries secrete estrogen.

What I want everybody to think of is that estrogen does not float well in blood. It's oil based. It's like oil and vinegar. They don't mix. So estrogen is carried in blood sort of on a boat.

We call it a binding protein. 2% of hormones are set free into the tissue, in the muscle, in the brain, in the skin, in the heart, in everything that the estrogen needs to do its job, the tissue utilizes it, dumps it back in blood.

Then it gets carried to the liver, it gets detoxified and then you put it out in your urine. So I always say it would be really nice if into menopausal peri menopausal women I could get a brain biopsy and a skin biopsy on a muscle board because then you would know the estrogen and every tissue.

Well, we can't do that. So one of the things I do initially is I do a salivary test, the wall of the saliva gland is very thin. So we know that the hormones get in pretty easily there.

So it's tougher to get in the brain, tougher to get into the uterus, tougher to get into thicker wall tissues. So if somebody's got a elevated at this age with a low salivary gland level, when they just spit and they're go, and I have these symptoms, you know, it's time to start replacing.

In saliva, we look at two main estrogens, estradiol and estradiol.

Testing Hormones and Choosing Bioidentical Therapy

And ten, 15 years ago, they did a lot of studies with estriol in mice and they found that patients got better in 2008 and 2009, and then it just fell off the face of the earth.

They stopped looking at it. So I look at both of those estrogens because they're both really important to get into the brain receptors and we look at the ratios and then using a combination compounded crane base, that's how I replace it.

And so go ahead. And do measure progesterone. Is progesterone another helpful compound? Yes. So we measure in saliva, we measure estradiol estriol estrogen.

The three main estrogens, DHEA, progesterone, testosterone and cortisol. Okay. So you get a very comprehensive look at my hormonal status and then then I'm taking these hormones in creams or suppositories or what's your.

Estrogens in a cream, estrogen and testosterone. We get in a cream. It's very, very difficult on the liver, first pass rate or oral estrogen. So if you take an estrogen capsule, it's hard on the liver.

90% of it winds up in the urine and you push through, right. You waste all your B, your B6, your B12, your folate, your zinc, you waste a ton of nutrients kind of breaking that down.

So when you give it transdermal, when you give it through the skin, what you do is you push it. The way I explain it to people is hormones, love fat. They don't love water.

So what the compounding docs do, the compounding pharmacists, is they will force the estrogen into the cream. When you put the cream on your leg, the estrogen goes, Yeah, I don't like the water. Based on this.

I'm going to jump on the skin so it jumps out of the cream onto the skin and you rub it in hard until it gets into your bloodstream. And that's how it carries all over the body.

Okay. Now, are you using the synthetic pharmaceutical drugs for a versions of estrogen, progesterone and testosterone? No, I have the compounding pharmacies mix it so they have pure estradiol and estriol.

So this way when I look at the salad, so. Let's let's stop for a moment, we have it because not everyone's going to understand that there are synthetic estrogens and biologically equivalent to human estrogen.

So could you explain that difference for women? So so Premarin, let's go to the left. Premarin is pregnant mares, urine, that is a bunch of different estrogens put together in a pill.

So if your estrogen looks like this and horse estrogen looks like this, they're putting this into a pill hoping that it will get on your estrogen cell receptor a little bit enough in the brain.

So at least the hot flashes go away and you don't feel as good. So when we talk about. Could women just take birth control pills and why would that not work?

So really, really good question, because I get that all the time. So birth control pills too big issues. Number one, all estrogen. All estrogen is brutal.

It's brutally awful on the liver like we talked about. So we never want to give birth control pills to manage anything, if you would. Somebody there are some docs that are really conservative and they will tell a teenager or somebody in their twenties to use a copper IUD and don't go anywhere near birth control pills because it's so hard on the body, so hard on the liver.

And number two, the body has a freak out when all that estrogen comes in from the pill and the sex hormone binding globulin is the binding globulin increase.

And I've actually had some infertility patients who one of the reasons they can't get pregnant is because the binding globulin have stayed so high that there's no free estrogen to get to the uterus to make a baby like right.

Birth control pills. Those are synthetic estrogens. Correct. It's it's either are. They but. I prefer to use the word their estrogen diol. So the extra diol in birth control is very similar to the estradiol say that's in the devi gel or in the estradiol or patch which is similar to the estradiol that you're going to get.

If you get a clean, bioidentical compounded hormone that's different than Premarin, where those three differ is oral, estradiol is not good for you. That's an issue, number one.

Number two, the problem in the Devi gel and in the other in the Listerine and the estradiol patch. Two big issues. Number one, it's going to 5.5, 0.75.

So if you're not fitting within that range to be perfect in measured levels, then OC hormones aren't for you because you don't feel good on the low. And then the high is too high, there's nothing in between.

And number two, there's a lot of chemicals put on them. The reason that the pharmaceutical companies can own them is because they've either stuck a little chemical on the estrogen or they've put some of these funky nanoparticles that dig their way into your skin in the patch, which creates that patented.

Version. Product, if you would. Okay. Where is the compounded? They're taking that same estradiol, but basically all they're doing is they're shoving it naturally in a cream.

So just figure the cream is dropping the estrogen on your skin. So when it makes its way, it doesn't have these like like I was tell people when they when you go to the beach and you take Coppertone and you spray it all over you and it magically stays on because there's so many chemicals in that this stuff eats its way into your skin.

So we want to stay away from that. So we get this, which is it's like ditch bioidentical. It's not this synthetic issue as much as how they mutate it and what they put in with it.

And you really can't personalize it. And none of those companies use estriol at all. So is estriol in the skin or is this a lozenge? Same thing yesterday.

All that's true. All together. And put together. Heather. And you can put it in topically. And what about the progesterone? Are you putting that on the skin as well? No.

Progesterone, Testosterone, and Long-Term Hormone Use

So what happens with progesterone is years ago, the big reason, right, you know, that they added progestins to the estrogen is because women had hot flashes, didn't feel good, and they were given estrogen by itself and the estrogen went into the uterus very easily.

So what they found is these women felt better, but then they got uterine cancer. So they the drug companies come along and say, okay, what can I stick to the estrogen to protect the uterus?

Nobody worried about anything else. And they took the base of birth control pills, the progestin through them. That's how parenteral was born. So they stuck it to that actually originally years ago.

I've been doing this a long time. We used to cycle people. We would give them Premarin what days? One, two, 25 for Provera, for that for ten days and then five days of nothing.

So the science has come a long way to where we use prime pro every day. So so that's not healthy progesterone. Now, one of the big issues that women have is sleep.

So when you take oral progesterone, when you when you had progesterone from your ovaries, it would turn into GABA in your system, go into your central nervous system, calm the anxiety, help you sleep, help the PMS.

When you give progesterone cream to things, the molecule appears to be very big. We did it for a while, but we still saw uterine cancer increased, so I think the molecule doesn't get into the uterus so your uterus isn't protected.

So that's why progesterone cream is not safe to be used with estrogen. You're not getting enough in to keep the uterus protected. But number two, oral progesterone goes into the gut and the microbes biome actually converts it into that calming GABA.

So we give progesterone capsules at night, you use your estrogen in the morning, and then you use your progesterone capsule at night in a slow release form.

So the gut slowly breaks it down through the night. So the night's nice, calming gab. It gets you sleeping well. Yeah. Everyone who's listening, there's been growing interest in using progesterone for people who've had traumatic brain injury and stroke.

And there are studies using progesterone for most folks as well. And then let's talk briefly about testosterone. Is that something that women need as we, you know, get post-menopausal, become post-menopausal?

So I feel very, very strongly about this topic because I think estrogen is really the key and it is underappreciated. And everybody is is driving women's testosterone through the roof.

Oh, it needs to be elevated. It needs to be elevated. And that's actually not true. If you look at an uncomplicated, healthy woman who can have a baby lad, core values of normal testosterone are between eight and 55.

A normal, healthy woman who can have a baby 25, 30 years old, will run a testosterone number of 21, somebody who has irregular periods and what we call polycystic ovarian syndrome.

Too many, too much hair growth, too much testosterone. They run an average number of 36. So unfortunately, what I will see is women will go to their doc and they will look and they'll have a testosterone number, say, of 18 or

19.

Their estrogen is low, their progesterone is low, and somebody wants to drive that number through the roof. Here's the second problem with that. If you look at the literature, the more modern literature, the cave woman.

Right. Couldn't hunt and gather as well as she did when she was younger. So here's testosterone in a young woman. Here's estrogen will cave. Woman menopause.

Her estrogen dropped because testosterone was there to make her tougher, stronger, more insulin resistant because she couldn't gather, she couldn't find shelter is easy.

So when you actually look at testosterone levels in the mitochondria, if they get super, super duper low, it's a problem. But if you drive them above that sweet spot, they actually slow mitochondrial function down.

So you will make somebody more insulin resistant, gain weight and give them less what we call thermogenesis. Right. They will burn calories as well. And they've done that in the lab.

So I'm really careful with testosterone. I think too many people push it too high. Do I want your number running reasonable? Yes. If you have a testosterone, that's too.

Do you need to be treated? Yes. But a lot of people what I'll do is give them estrogen and progesterone, send them to the gym because you got a lift. And often what'll happen, you put somebody's estrogen in their body and you live three days a week or two days a week.

And I say lift, always leave the gym. Not happy means you did a good lift job. You'll find that the DHEA and testosterone go up on their own. Go. Okay, this is so, so, so important.

I think the next question is so I'm 67, my plans to live 220 still teaching, doing research, having postdocs, should I be continue to take hormones for the next 60 years?

What? I think so. So the problem with the literature, my short answer is yes, absolutely. I tell people they're going to try. I'm out of my cold, dead hands.

So I'm not going to ask them. But but the problem that we have is the literature looked remember at prem probe. So it looked at oral estrogen. So now they'll turn around and say, well, we didn't see any help and women in their late sixties and early seventies.

But you're not looking at the good health, the estrogen that we're on. And then there's a lot of controversy even about starting women. So advice, number one is start early, too early or, you know, don't oh, I'm 52, 53 and I don't feel that bad even lose brain early.

And so I would stay on them indefinitely. But I am not against starting women later. So I'm also thinking that for everyone listening with M. S. and neuro immune, it's going to be super helpful to get salivary hormone testing.

Know where you're at. I spoke earlier with someone who is into thyroid.

Practical Advice for Neuro-Immune Patients and Closing

So I check your thyroid hormones, check your cortisol, check your sex hormones and be sure to get your hormones addressed because your brain needs it.

And if you don't have adequate health to your hormones, your brain is going to age much, much more rapidly. Diane, this has been so fabulous. What what is the one bit of advice you would give to the people with massive neuro immune conditions who are listening today?

So, like you said, I would address your hormones because there's so much work that was done with estriol, also just both estrogens on neuro immune problems where they got better and then kind of you saw no follow up.

So I think get your hormones addressed, do your salary baseline, get feeling better. And then we do urine testing to make sure that your levels are out of that early menopausal range.

So we make sure that we have flowing through your body into your brain. I don't want 25 year old levels of estrogen and I don't want anybody there. But make sure you get just out of that range.

So so somebody that really knows what they're doing to not just treat your symptoms, but a combination of, yes, I feel better. Yes, my system is stronger and I look good, kind of like you get your blood pressure checked, right?

You make sure that those numbers are good. So we use salivary baseline urine afterwards and get somebody that really understands what they're doing. They'll be able to give you really good data.

On if hormones are healthy for you. Background what you need to know and how to get your body optimized. Absolutely. Okay. Are you seeing patients still? Can people come see you?

Absolutely. We we are in Texas. So we are Texas only. We do we have a lot on our website. So if you go to Diane Ginsburg, M. D., there's a lot of my website with a YouTube channel where we try to address a lot of questions that people have.

I've started to do a question and answer a free question and answer every month because women will say, Well, why not birth control pills? Or My doctor gave me this.

So we we try to do all of that and we're happy to see people in Texas. This is excellent. This has been wonderful. I love your work and hormones rock on.

So I'm like, well, stay strong.