Hormone Therapy Rewritten: Rethinking Progesterone in Modern Medicine Transcript

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Introduction and Guest Background

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And one thing I will say is if you have a woman with endometriosis, that's systemic transportation of uterine tissue throughout the whole body. These women can actually get metastatic uterine cancer post hysterectomy because they still have uterine tissue in their body.

So there's also multiple other organs that benefit from progesterone even if you don't have a uterus. You're listening to the Lifestyle Medicine podcast with Dr.

Ivan Rusilko, brought to you by Access Lab, where we explore new perspectives at the forefront of personalized health care. Welcome to the lifestyle medicine podcast.

My name is Dr. Ivan Rosilko, and if your doctor's not checking labs, he's not a doctor. This is sponsored by Access Medical Labs. And today we got Dr.

Nikki Lovett, probably my favorite name to pronounce on this podcast so far. So thank you so much for being here. She has her PhD in therapeutics and she also has her MD degree from a medical school in Manitoba.

So Nikki, thank you so much for being here. Thank you for having me. Excellent, excellent. And today we have a very unique topic, something we have not covered on a Lifestyle Medicine podcast before.

We are going to hammer progesterone. And I think it's a very unique thing because a lot of physicians kind of maybe brush over this, you know. For their male patients, it's always testosterone, testosterone, testosterone.

Females, we always focus on estrogen and you affect the whole progesterone on the back end kind of getting the short end of the stick. So I'm actually very excited to actually go over this with you.

We do check a lot of progesterone in my practice and I know there's a lot of things in the male patients as well as the female patients. So I'm hoping you can help us decipher what is what and where it all goes.

How's that sound? That sounds good. Okay. Well, first and foremost, why don't you tell us about yourself? I'm very, very curious. So you're from Canada.

How has that journey been? It's been interesting. I practiced in both, on both sides of the border and know both systems really well. It's been great coming to the U S and, and being able to practice more cash pay, um, medicine, concierge medicine, which is great, very different systems though.

No, yeah, I can only imagine. That's great, though. I grew up right next to Canada and Pennsylvania. So it was always unique to sit there and see. We had a lot of physicians come down from Canada and actually work in my really small little hometown.

So Canada holds a special place in my heart. So again, thank you for being here. So let's get back to progesterone. So again, give me the overall view.

If you were to explain progesterone to a doctor who just got into the wellness industry, not so much the traditional aspect of medicine, but the wellness cash pay, like you said, how would you describe testosterone for both men

and women?

It's a progestational hormone, meaning it promotes pregnancy. And in women, we have really high levels when we're pregnant. We have a surge of progesterone after ovulation if we can ovulate.

No, for sure. And so that's one big thing, you know, especially when you're checking for it. You know, some people might, actually a lot of physicians don't understand, you know, there's different levels at different times during menstruation for women.

And I think that's one of the pitfalls when you actually compare it to progesterone to actually estrogen.

What Progesterone Does and Why It Matters

Because some of them might have semi-normal levels, but if there's this gigantic estrogen dominance over that, that can lead to actually a lot of pitfalls, correct?

Yes, and the serum levels are a little bit prone to error because it can be measuring metabolites progesterone, not necessarily actual progesterone levels, and they're not measuring what's getting to the receptor and binding or how sensitive the patient is to progesterone.

We understand that diabetes is insulin resistant and they have to make more and more insulin to compensate. While there's also certain conditions like PCOS and endometriosis, where women have resistance to progesterone.

So even if they can make enough in their blood, it's not enough at the tissue level. They still have symptoms like heavy menstruation, PMS, anxiety that they need more than they can make.

What would you say the best way to test for progesterone is? Would it be saliva, urine, blood? So the one reason to test a blood level of progesterone and make it exceed a certain threshold is when you're treating menopausal women that have a uterus.

And in the medical literature, it's substantiated that it has to be a serum level greater than 10 to be protective for the uterus. Other than that level, there really isn't a good way to say, okay, this level is good, this level is bad without interpreting it in the context of the symptoms of the patient.

What would you say the top five symptoms of a progesterone deficiency would be in a post or pre-menopausal woman? Any kind of menstrual abnormalities, heavy menses, cramps, GI symptoms with your period like nausea, diarrhea, that would be progesterone.

Any kind of chronic headaches or migraines? Low progesterone until proven otherwise. Difficult to control fluctuating anxiety and depressive symptoms, especially worse around your menstrual cycle or PMDD.

That's a big red flag for progesterone deficiency. Um, another, sorry, go ahead. No, no, no, go ahead. Please. I'm curious. That's three. Then a fourth one would be chronic, very tight or painful paraspinal and neck muscles in this area and the trapezius muscles that tends to indicate low levels of progesterone because progesterone is also a muscle relaxant.

Okay. And then another big symptom I see is disruption of sleep. So night sweats, tossing and turning, difficulty staying asleep. A lot of those women will have inadequate progesterone even though their blood level might be okay.

Okay, very unique. Now, so let's say you find deficient levels in a post-menopausal woman. What's your first, I guess, area of attack? Would you give them a cream?

Would you give them some type of oral? Or what is your go-to on your first line treatment when it comes to replacing testosterone in a post-menopausal woman?

Testing Progesterone and Recognizing Deficiency

Yeah, so when you look at how to get targeted protective blood levels, the best routes of administration are going to be oral, so swallowing a capsule of progesterone.

When you take it orally, it usually puts you into a deep sleep, and so we generally say take it at bedtime. That will give you some good serum levels, and you can also use mucosal, so under the tongue or vaginal, which also gives really good levels.

The problem with a transdermal is that it's not going to give you a good blood level and you won't get the uterine protection that you would need. And would you say your starting dose is kind of uniform across the board?

So it'd be what, 100 milligrams usually? Usually we start around 100 to 150 milligrams and then we go up slowly based on side effects. The limiting factor for the capsules is women that make a lot of that sleepy metabolite from oral progesterone might be more groggy.

So we have to go slower or we have to use some dissolvables that don't make you sleepy. What are some of the major side effects you would see with too much progesterone in the system?

So the number one is if you're taking it orally and swallowing it, it's that sleepy metabolite lingering in the morning. So the first hour or two you're awake, you feel really groggy like you took a sleeping pill.

And then some women will get some nipple pain. It feels a lot like you need to breastfeed a baby from what I've been told. like a little bit of electrical sensation or burning and that usually goes away once the body realizes that there's no breastfeeding happening it turns the receptors off.

Okay and did you adjust this at all if you're going to add estrogen into the mix at all or is it the same dosage across the board? So usually we generally start the same dosage across the board with the idea that we're starting slow and going up based on side effects and benefits.

In menopausal women, we have to start estrogen as well, and the progesterone can really help counteract some of the side effects that women might get on estrogen therapy.

And can you explain why women who are on estrogen therapy must be on the actual progesterone aspect as well? So if they have a uterus, if there's a uterine tissue present that could be stimulated by estrogen, you need to have adequate opposition with progesterone to prevent uterine cancer.

And one thing I will say is if you have a woman with endometriosis, that's systemic transportation of uterine tissue throughout the whole body. These women can actually get metastatic uterine cancer post-hysterectomy because they still have uterine tissue in their body.

So if they have endometriosis or they have a uterus, I make sure that they have protective levels. But there's also multiple other organs that benefit from progesterone even if you don't have a uterus.

Well, now, I mean, you set it up. So now I'm curious, what other organs are going to be benefiting from the progesterone? So progesterone works synergistically in the vasculature to improve estradiol's benefits to prevent heart disease, heart attacks and strokes.

It works in the brain as an antidepressant. and anxiolytic, so it calms the brain down.

Treating Low Progesterone in Menopause

Just the sleep benefits alone, as you know, with people who want to lose weight or improve their quality of life, sleep is a huge factor. And so the brain needs the progesterone.

It's also helpful in terms of keeping your bones healthy, synergistically with estradiol. And so really it's beneficial throughout the whole body, but conventional medicine is so hung up on the uterus argument.

It's like, okay, yes. They should be protected. They have a uterus, but it doesn't mean you shouldn't give it to every woman who has progesterone symptoms.

Okay. And now when it comes to treating postmenopausal versus perimenopausal versus women who are still in their fertile years, do you have any different lines of attack, I guess you would say, or is it kind of a standard dosage no matter what?

It really depends on if they have underlying diseases like PCOS or endometriosis where they already have resistance to progesterone. Some younger women need much higher doses than you would think to control their symptoms.

And other women who've had five or 10 babies just need a little bit even in menopause. So it's very dependent on the patient. But the main thing is to titrate up until you have control of the symptoms.

We actually had, there's no such thing as a progesterone overdose. Okay. You literally took it out of my nose. Just going to ask that question. So putting on my pharmacology hat, and if you call poison control and say, hey, I took too much progesterone, there's an overdose for synthetic progestins, but not for bioidentical progesterone.

We actually had a client whose dog ate several thousand milligrams of her dissolvable progesterone and the vet said, yeah, no problem. So I'm curious, can you give me the whole rundown between the synthetic versus the natural versions of the progesterones that are on the market?

Yeah, I wish we could propose a new name completely for synthetic progestins. It's too close together, you know? Yeah, so there's several papers that have suggested that we need to be more strict with the nomenclature because when you read a paper about progesterone, you can read the whole paper and in the fine print, it's actually on a synthetic progestin.

So bioidentical progesterone binds the progesterone receptor and turns it on. Synthetic progestins block the progesterone receptor. So they do the exact opposite.

And that's why, even though we like to talk about breast cancer, having certain receptors being positive, there's never been a drug developed for breast cancer to block the progesterone receptor because it would make the cancer so much worse because progesterone calms the breast tissue down.

So it just, it's a completely opposite effect. Progesterone promotes pregnancy. Progestins actually are in the abortion pill or prevent pregnancy and birth control pills.

Oh, that's interesting. Now, so the various kinds of progesterone, there's slow acting, there's full day aspects of it. Well, what's your favorite to start with?

Is it basically just the quick act and then go with it or do you prefer different types?

Progesterone Safety, Forms, and Compounding

So the immediate release progesterone that's premium progesterone that's been heavily micronized is my preferred way of giving it because to get good absorption, it has to be very small micronized into very small pieces, which is why I don't prescribe commercial prometrium at all because it's too big and it's packaged with a really toxic oxidized seed oil.

So I don't use prometrium. So some pharmacies will make SR, but the problem is the lipophilicity or the desire of progesterone to be in a fat interferes with its ability to be sustained release.

So you're going to get really poor levels with SR, unpredictable clinical responses versus using an immediate release. Oh, very, very unique. So would you say the compounding versions are probably more, I would say tolerable than the actual commercial versions of it?

And so what's the major difference between the two of them? We've probably done now a couple thousand patients worth of lab panels and some women come to me on the commercial progesterone and I can count on one hand the number who've had good levels on it versus the compounded, we get great levels from it.

Okay. Do you have any suggestions on how to find the correct compounding pharmacy when it comes to that? Yeah. So you want to ask them if they make SR progesterone or not.

You want IR and you want to ask them what type of progesterone they carry. And if they are a good pharmacy, they'll know there's a difference. There's a premium kind and there's a general kind.

If they don't know, walk away. Yeah. And the size, you want to know the size of their micronization of the progesterone. Okay. So I'm curious again, you said what's a good size versus a terrible size?

The smaller the better, I believe, and maybe don't quote me on this, I think it has to be smaller than 5 to 20 microns. Okay, so basically the smaller the better when it comes to it.

Yeah, because if you think about a tiny little ball of progesterone going through the GI tract gets sucked into the blood supply versus a big ball, which is a lot harder to get through.

No, for sure, for sure. So let's kind of switch gears. What is progesterone's role in pregnancy? So progesterone has several roles. At the beginning of pregnancy, it helps the embryo attach and create a healthy placenta that's fully stuck to the inside of the uterus.

That's really important because the placenta will do things, goofy things late in pregnancy like raising the mother's blood pressure, causing preeclampsia or high blood pressure because it didn't have a good stick to the uterus.

So it's trying to get the more blood supply for the baby later in pregnancy because it had a bad stick. Progesterone is also helpful at reducing inflammation.

It's somewhat immunosuppressive in a good way to allow the mother to tolerate being pregnant with an embryo that's genetically distinct from her. And it also relaxes the uterus so it doesn't contract until labor starts.

So one of the other symptoms we see of low progesterone in women in their obstetrical history is high blood pressure, preeclampsia, preterm labor, things like that.

Now, do you replace progesterone while somebody is pregnant or do you try to avoid that? So if they have PCOS, it will help them reduce their risk of miscarriage from low progesterone.

If they have recurrent miscarriages, it's certainly not going to hurt. There's really no downside to it. A lot of the dogma that it's not good is based on people's opinion and not the literature.

And so there's an idea that if you give progesterone early in pregnancy, the placenta won't take over, but we know that not to be the case. And in fact, IBF pregnancies get progesterone injections throughout the first trimester to try to keep them pregnant.

Progesterone in Pregnancy and Fertility

So if you just apply some of those principles that we get out of IBF to women that are conceiving naturally, you can get better outcomes for the baby.

No, that makes total sense. No, I'm curious. I was going to segue into actual fertility. What is a progesterone's

aspect and what does it role when it comes to women being fertile?

Because we're seeing, especially in my Miami office, the amount of people trying to IVF or having issues with actual fertility is just off the charts compared to five, 10 years ago.

So I'm curious, when somebody comes in, has a low or lowish progesterone, what's your first step? What's your first view when it comes to actually helping them conceive?

So a lot of the patients I help get pregnant have PCOS, which is usually an ovulatory or they don't ovulate normally. They ovulate instead of every month, maybe twice a year.

And so when you don't ovulate, you don't get the progesterone surge in the middle of your cycle and there's no egg to fertilize. So you can use ovulatory induction agents, medicines that will cause ovulation to occur.

And then we support them once they're pregnant, once they get that positive home pregnancy test, you support them with progesterone like they would get if they had conceived their IVF.

It works great. Yeah, and we've saved a lot of women from having to go the IVF route. And some that do go through IVF, we try to optimize their health for the baby and them when they are pregnant, helping them with weight loss, fixing other hormonal imbalances like Hashimoto's or low thyroid function, which is a huge factor for infertility for women as well.

No big time. Dude, now when you're doing your actual hormone tests and everything, are there certain things that you find that are kind of coinciding with low progesterone?

Like she has low progesterone, therefore her testosterone is probably off or her IGF is off or thyroid or adrenals. Do you find any correlations between those things?

Well, we know that T3 is the active thyroid hormone at the tissue level, and T3 modulates ovulation and progesterone production. And so a lot of these women are in kind of this death spiral of they have low thyroid weight gain, infertility, low progesterone, and it's all tied together.

So a lot of women will actually have improved ovulation just by fixing their thyroid problem, helping them lose weight with weight loss techniques like diet changes and stuff like that.

That's fascinating actually, very cool. The whole thyroid connection, I love that. What about with the adrenal glands and stress? Do you find stress being a big indicator of issues when it comes to low progesterone?

It can be, yeah, because whether you're dealing with, you know, poor nutrition or work stress or shift work sleep deprivation, it all turns on genes that are involved with helping you survive things.

And getting pregnant is not a good idea to get pregnant when you're under stress because your body says, well, if this is all happening, yeah. it's not a good time and so but that's pretty hard to tell you know a high-performing lady that has all these obligations you just have to quit your job and go to the lake for six months to get pregnant that doesn't usually help yeah so yeah stress reduction for sure in my practice i see much more often that patients have low t3 or low thyroid active thyroid function at the tissue level even if their blood levels in the normal range and supporting the return of normal thyroid will often correct adrenal dysfunction without having to address the adrenals directly.

Very cool. Also, how do you see, if any, I'm curious, any interrelations between progesterones and testosterone? A lot of that is just strictly the whole female route.

So anyone that's not complete done having their children for females, we don't optimize androgens or testosterone around the time that they would want to be getting pregnant because there's a risk of suppressing ovulation.

Women and men handle testosterone quite differently. Women do not aromatize testosterone into estrogen and it actually can suppress our access, similar to birth control pills.

And so we try not to mix the two and the testosterone normal range is really fraught with errors because it can be based on menopausal women, which don't have testosterone or, you know, it's not based on, there's no established range that's, this is healthy for women.

Yeah, it makes total sense.

Hormone Interactions: Thyroid, Stress, and Testosterone

It's all about the ranges, right? Yeah. So I'm curious, so now Switch, do you deal with progesterone in men at all? Because I know that that's kind of like the whole loss thing.

Nobody ever talks about it. You don't see it taught anywhere really when it comes to actually replacing progesterone in men. But I know it's very, very important.

I do do it with some of my patients. So I'm curious to see what your thoughts are. So the literature I've seen with progesterone in men is there's some concern that whether it's bioidentical or synthetic, it can raise inflammation in men.

And so in my practice, I don't go there. I will use oral estradiol in men to raise their growth hormone naturally and reduce their insulin resistance.

And that usually helps them sleep. And I don't even need to go down any other route, maybe some sustained release melatonin, testosterone, maybe some thyroid, and often they do pretty well.

Very cool. What is progesterone's role in sexual function? All the fun stuff. Well, I would say that sexual desire is a form of an appetite or a hunger for something.

And a lot of women have multiple barriers to understanding that desire for themselves. But I can tell you that if you have low progesterone and you have a very short fuse and everything's annoying and you're angry and you're not sleeping, your libido is going to be not very good.

And I find that when you correct the imbalances of progesterone, there's a significant improvement in receptivity to their spouse or to their family. And that usually goes hand in hand.

Oh, I love that. So I'm curious, so anybody watching, whether it's a healthcare practitioner or just a patient, what are some of the basic things you can sit there and all of a sudden you're sitting there like, oh, I don't feel like this, or I feel this way, that everyday people can sit there and maybe think that they actually might have an issue with low progesterone?

Yeah, I mean, the best way to know how you would feel is to get on progesterone and feel the difference. I haven't really had many patients who, it's very rare, some women don't tolerate progesterone.

It's been, I can count on one hand, the number of women who've had issues. Most of the time it's reliably improving their quality of life. And a lot of the treatments that women are offered to control their menstrual cycles and their psychiatric symptoms related to their hormones involve surgeries, big deal surgeries like hysterectomies and ablations or hormonal contraceptive pills or devices.

So progesterone is… in my opinion, could be over the counter. A lot of states have birth control pills over the counter now. So it really is something that I think most women could benefit from from a quality of life perspective.

As we gather more and more research, we're finding that it also significantly reduces the risk both of recurrence and getting your original breast, uterine, or ovarian cancer.

So there's some population health arguments that we should be using it more in women, even if they didn't have symptoms. Oh, I love that. I mean, so really, I mean, it sounds like it's almost the wonder drug here.

I mean, if you had to pick out two of the most, I guess, common major side effects of a progesterone overload, what would that be? Morning grogginess if you're taking it in capsule form or nipple sensitivity.

That's it. That's really, that's it. Um, unless you're one of the very rare women that gets an, on a paradoxical, like allergic reaction, but then you can use different routes and sometimes they tolerate it just fine.

Those are usually the women that hated being pregnant, like they were just miserable throughout the whole pregnancy. Oh, very, very cool. I got to say, I mean, I'll be like, my whole thing, like progesterone is probably like really far down on what I usually go after at my practice, at least.

I'm going to bump it up there, man.

Progesterone in Men and Sexual Function

It seems like it's safe and it's kind of like the go to now. So I'm curious. I'm curious. I always like to ask all positions who come on. If you could give any advice to somebody as a patient who's coming into this industry, whether they have symptoms of progesterone deficiencies, estrogen overloads, whatever it could be, what is something that patients need to look for in a wellness or a regenerative or a functional based physician that you would say is probably the best way to kind of approach this new and budding industry?

I mean, it's really tricky, especially as drug label warnings have been taken off and more people are jumping in. Try to look at the longevity of the provider in this space and where they did their training.

If people are just jumping in, you know, this hormone therapy education has not been in the medical school curriculums for 25 years, and it hasn't been in the residency programs.

So you have to be really careful who you're getting prescriptions from because hormone therapy is extremely safe if it's done correctly. No, I couldn't agree with you more.

I also, I'm very curious. What are your thoughts on them taking out the whole black box label warning off of the actual hormone replacement? Did that do a justice for the industry or now all these people see this and they're just jumping in trying to just overload the industry now?

Well, I've made this comment before, but if a really fancy oncology drug got a black box warning removed or an interventional cardiology drug, we wouldn't start seeing people prescribing them or using them.

She'd be like, I'm not an oncologist, right? But hormone therapy is nuanced. There's a lot of research you'll read that the actual goal of the article was to show X, but if you read it, it shows Y and it has to be interpreted very carefully.

So I like that there's change at the drug label level, but what that should have been is bioidentical hormones are a completely different drug class.

Choosing the Right Hormone Provider

and then let's do an accurate drug label progesterone doesn't cause blood clots definitively let's take that off progesterone and leave it on progestin so we can so the consumer can look at the drug label and not be like well what the hell is this very true no you couldn't be more right on that one so that brings me to my second question As a physician who's been traditionally trained in the form of just prescriptions and surgeries, and now all of a sudden you're like, I want to come into this wellness industry, regenerative, whatever you want to call it, what would be kind of your advice or your counseling to these doctors who are now trying to kind of, you know, do better for their patients to actually get into this industry?

Well, what is something you could tell them to kind of like, this is how you should actually get into the industry properly? So there's a physician who I trained under, his name is Dr.

Neil Rousier. He has been doing this for 30 years and he is an expert in this space. Find somebody that you can trust that can get your basic education in.

I'm currently part of a project that I co-founded, a new medical society that's going to be coming out soon in the press called the Society for Proactive Medicine.

And we are going to be, yeah, we're going to be writing clinical practice guidelines for hormones. So hopefully over the next five to 10 years, there will be a peer-reviewed clinical practice guideline for the use of progesterone in women so that providers have a resource that has sussed through some of the nonsense and the garbage and the data.

Oh, I think that's fantastic. Well, good for you guys. Maybe make sure you keep me informed on that. I love that physicians are coming to this industry and really trying to better it by bettering those around them, which I think is awesome.

So very cool. Well, Dr. Nikki, I got to say thank you so much. It's been such a pleasure today. Thank you for coming at me. I know it's cold up there.

I think you said it was negative five or something, something bananas. It's much different than the 50 down here. But again, thank you. Thank you so much for coming.

It was been amazing. You've taught me a lot on progesterone. Now I have to go back and start scratching my head and actually looking at my patients. But again, thank you so much for stopping by.

It's been a pleasure. No problem, thanks for having me. And again guys, this is the Lifestyle Medicine Podcast. I'm Dr. Adam Rusilko. You can see all these podcasts on Apple, on Spotify, on YouTube.

Send a pigeon, you'll find it somewhere. And again, this is Dr. Nicky Lovett. Probably the best name I've ever heard on this podcast too. So thank you for stopping by.

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