Are Your Hormones Sabotaging Your Health? The Truth About Bioidentical Pellets Transcript

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Introduction to Hormone Health

The biggest thing, and this is why I hone in on our trainings, you've seen we spend the first five hours reviewing literature, you know, looking at the studies on how estrogens, especially, but estrogen and testosterone, protect the brain from Alzheimer's disease, dementia, strokes, osteoporosis, cardiovascular disease, breast cancer, prostate cancer.

I mean, when a man's testosterone is low, his prostate cancer risk goes up exponentially. Right. These risk goes up exponentially. So I think that still the biggest thing is clinicians can't make this connection that hormones aren't just for reproductive health.

They are literally for every single body system. Like I said earlier, if you have a hormone receptor sitting on a cardiac cell, a brain cell, you know, a heart cell, a brain cell, a bone cell, a skin cell, that means that hormone has a job to do in that cell.

This is Dr. Tops. Real talk from real doctors on the issues that matter to you most. Welcome to the Functional Edge podcast. I'm your host, Dr. Julia Ward, medical director and founder of Balance Body Functional Medicine.

Today, we're honored to welcome Dr. Terri Denai to the show. Dr. Denai is a nurse practitioner and founder of Avexapel and a nationally recognized leader in the field of hormone optimization and regenerative medicine.

Through her innovative pellet therapy protocols, she's helped thousands of patients restore balance, energy, and long-term wellness. In this episode, Dr.

Danai shares her expertise on bioidentical hormone replacement therapy, including the science behind hormone pellets, how to individualize treatment, and why hormone optimization is so much more than symptom relief.

So whether you're navigating perimenopause, andropause, or simply want to get vitality with age, this is a conversation you won't want to miss. So stay tuned for expert insights that will help you take control of your hormonal health and thrive at every stage of life.

So welcome. Thank you. Thanks for having me. You know, this is my favorite thing to do is to educate. I would do this all day. Great. Great. Well, Dr.

Danai, you've had an incredible journey from emergency medicine to founding of XCS Health Solutions. What inspired your shift towards integrative and hormone-focused care?

Yeah. So, you know, my background, like you said, is in emergency medicine. And I also worked simultaneously for a big hospitalist group in the Dallas-Fort Worth Metroplex at a big level two trauma center and great fun stuff, learned a lot, helped so many people.

But I think where we fall short and where I really saw how conventional allopathic medicine fall short was in the hospitalist side. Emergency medicine is fun.

You can stabilize disease, get them either out, you know, home or up into the hospital. But really, from the internal medicine side, I really realized, and I started realizing this over and over early on, but I was helpless to do anything about it, that it just seemed like we were really just band-aiding a lot of chronic diseases that have prevention at the root cause and the root of treatment, which really should be prevention.

And we just don't learn how to do prevention well in our training, as you know, in this country, whether you're a medical doctor or a nurse practitioner or a PA doesn't matter.

We're kind of focused on this allopathic model of, you know, you have a symptom, you treat the symptom, but we're not really doing a whole lot to manage disease and prevent disease.

So it kind of sparked my interest to really start seeking answers.

From Emergency Medicine to Hormone Optimization

And I found myself at actually an A4M conference, World Congress on Anti-Aging Medicine, about 16, 17 years ago, might have been 2008, I think, January.

was just listening to a longevity talk by a doctor and her name, I can't remember her name, but she wrote a book, you could find her probably, called Awakening Athena.

And she was telling stories about just profound life change and being able to get patients off medications like antidepressants and blood pressure medications and even in many cases over the course of time.

you know, diabetes medications and sleep medications and anxiety medications. And I just thought, wow, this is, this is really kind of what is needed.

But what surprised me is it was a hormone talk, you know, and I just was like, wait a minute, hormones, is that just for, you know, when we start having hot flashes or men start becoming grumpy old men, you know, kind of thing in my 50s.

But I kept digging and yes, these, this hormone conference was focused on postmenopausal women. But what I found as I kept learning and I started learning about testosterone specifically that these deficiencies start way younger than our fifties.

women and even men in many cases. And now I think even younger and younger, obviously, as you know, because of just our food, our dietary practices and things in this country.

So it started me on this journey and I transitioned my little 10 by 10 aesthetic practice. I was just in a room and I moved in and joined another practitioner and started doing hormone optimization.

And then About a year later, I learned how to do hormone pellet therapy and that was just a game changer and it just has exploded. And then, you know, now as, you know, the rest, as they say, is history.

I've really been able to take a lot of that knowledge and, you know, lectures I've done and teachings that I've done and wrote a book and just really educate because there's still so much misinformation.

So long answer to your question, but okay. Sorry. That's great. That's great. So you developed the Avexapel method. What sets this approach apart from other pellet insertion techniques?

Yeah, so I trained about in 2009, so 16 years ago with, you know, who we called the godfather of hormone pellet therapy. That was Dr. Gino Tatera. He's since passed away, but he really was a pioneer in this space.

And what I found is the protocols that I learned from him worked beautifully, but not for everyone. And what really bothered me was the outlier patients that it seemed to either not work, I'm gonna air quote that because you can get fuel in the tank, but why isn't getting in the cells?

Why isn't relieving symptoms? What's going on with these people that it's not working? So I spent the better part of the last decade really just trial and error, going to more functional integrative medicine conferences, really understanding the role of hormone receptor activity in the gut.

And there's so many nuances that go into hormone optimization. It's, you know, again, I learned, even though it was pellet therapy and it was a pioneering, you know, modality, I still learned in an allopathic way because what they were teaching me was, oh, your patients will have all these symptoms and here's hormone pellets that can address those symptoms.

But there's a lot of other things that, you know, just kind of weren't right. So, just trial and error and learning and adding things. You know, I think we've, and we're still learning and changing and adding.

We've, you know, done things to perfect the insertion technique. You know, every, I'm limited to every quarter. I can update my lecture slides, but we really always like to know what's latest and greatest, what's new in the hormone world because it's fluid.

I mean, it's changing. There's more and more information coming out. I have lectures and I'm teaching things that I didn't learn 16 years ago or 10 years ago, you know, and so forth.

So it's constantly evolving. I think that's the biggest thing that sets us apart is we're really committed to maintaining that evolution and making it better.

Yeah, that's awesome. Well, for listeners who may be unfamiliar, can you explain what hormone pellet therapy is and how it works in the body? Yeah. So hormone pellets have been around since the 1930s and it's bioidentical hormones.

So bioidentical just means your body recognizes it as bioequivalent to your hormone that your body makes. So interestingly, the five ring carbon structure of the yam plant is identical to human hormone.

And so when compounded and when they make a powder, they create a powder. And that is what most, we used to use soy and or yam, but now it's just yam.

We don't use soy anymore. But bio-dentical hormones are created at the base from this type of source.

What Makes the Avexapel Method Different

And so when, you know, I like to just backing it up to bioidentical hormones, I like to give the analogy of a key and a lock and the hormone, the right hormone, the bioidentical hormone, if you've ever had a key that fits in a lock and doesn't really turn the lock all the way, you can liken that to a synthetic hormone.

But a bioidentical hormone hits that receptor and unlocks that lock and allows all of the processes that that hormone is supposed to the action that that hormone is supposed to have in that cell to happen.

And that's a really important distinction because even the word hormone means impel to urge to move on to cause an activity. So if there's a hormone receptor on a cell, you know that there is a hormone that is supposed to provide an action in that cell.

So hormone pellets were discovered and really utilized in this country to a great deal and were being studied in the mid thirties in women who had had hysterectomies with their ovaries removed.

And it worked great. They loved it. They got estrogen levels up to premenopausal levels. And then in the 40s is when we discovered women, our ovaries actually make testosterone and it's a vital hormone.

It's an incredible hormone, as you know, for vitality, moods, brain function. My doctoral work was on depression and androgens, testosterone efficiency in women.

And so that was really a game changer for women at that time. And then Premarin came on market in the mid 40s. And by and large, this magical pill that really changed lives for many, many women became the mainstay of hormone therapy in our country.

And so hormone pellets as an option, as a modality, really kind of fell by the wayside and then kind of made a resurgence back in the 80s and 90s and especially in the last a couple of decades here in the States.

So they've been around a long time. The difference and why I love them over the other modalities besides the fact they're bioidentical is you can really dial in on the dosing.

And the biggest thing is you have that hormone available because these little tiny pellets are placed. the skin and it slowly is releasing that hormone into the system.

You have your levels up 24 seven for a good three to five months rather than, you know, I put a patch on it lasts for three days or I take a pill and it lasts for just that day and you're on this roller coaster or in the case of men, I get a shot of testosterone and I really spike up high for a few days and then I crash.

So it takes away this roller coaster effect of the other modalities that are available. Yeah. Yeah. And just, you know, so many of my patients, new patients come in and they have such fear or misinformation about hormones in general.

Like, isn't this going to cause cancer? Isn't this, you know, so I have to kind of put it in context that a lot of those, you know, cons or those relationships to cancer were really done using the synthetic hormones, like the hormone and the probera.

Yeah. And even, you know, the more recent data even shows that the synthetic estrogen protects women against breast cancer and death from breast cancer, which isn't what we would want to use.

But the data that was reported around breast cancer obviously was skewed and really created a lot of fear. Unfortunately, it was actually the synthetic progestin in WHI that caused all of the negative effects of that hormone.

And so, yeah, it's created a lot of unfounded fear. Yeah, yeah, absolutely. Well, who would you say would be an ideal candidate for pellet therapy and who might not be a good fit?

Well, you know, really for females, females across the age span would be a candidate for pellet therapy if they're symptomatic. And even as young as in women in their 20s, if they're on birth control pills, it's blocking their testosterone production.

And so really for women, it can be any female that's suffering from depression, moods, anxiety, irritability, low sex drive, brain fog, difficulty sleeping at night, fatigue, those kinds of things.

Those are pretty global testosterone deficiency symptoms. And then of course, as women transition through the hormone changes through life, you know, and we start having estrogen fluctuations typically in our late 40s, early 50s.

And then that would be an opportunity to add in estrogen or estradiol mix. And so that's for females and, and really males, same thing, you know, honestly, we're seeing younger and younger males now.

I typically like to, don't like to give testosterone replacement to young males that are still reproducing.

How Pellet Therapy Works

because it can suppress your sperm production quite significantly. And so, you know, we really can, a lot of times in these young guys, we can work on their diet, get them some certain nutrients, nutrients supplements, things like that.

They can kind of help turn that around, but that takes lifestyle changes and that's hard for a lot of people to do. But really the only, you know, absolute contraindication of, for, you know, estrogen therapy in a female would be active breast cancer and that's just because it's not standard of care and really they're in the only contraindication for

testosterone pellet therapy would be in a male with an active prostate cancer that's being treated.

Otherwise, there really is no contraindication because all of the side effects that the negatives that you read about with hormones are typically in oral form, which have a much higher side effect profile.

Right, right. And so how does pellet therapy compare to other forms of bioidentical hormone replacement like creams, patches, injections? Yeah, so they're all just depends on the patient.

We have used all of them in our practice. We have a handful of patients that use creams. We have handful of patients that use patches and males that use shots.

And it just depends on the patient. Maybe that's just their preferred modality for whatever reason. But they're all good. I think the only hormone that I would never prescribe to a patient would be a synthetic progestin.

testosterone, a progestin, oral. I wouldn't probably, first line, if a patient didn't want hormone pellets, I wouldn't probably use oral 17 beta estradiol, which is available commercially and is very well studied and very safe and efficacious.

slight increased risk in certain populations that it can increase clotting risk. But there's patches available commercially that are bioidentical. There's oral bioidentical progesterone available.

Creams do okay. I use a lot of creams in women that maybe are breast cancer survivors and it's really great for vaginal discomfort and things that happen locally in the vaginal bladder area that because of low estrogen and maybe they can't get estrogen replacement because they're in the middle of a breast cancer treatment.

So creams work beautifully for that. We use a lot of creams of testosterone for women for libido when applied vaginally that works really great for libido.

So there's all different kinds of modalities. I think, you know, about I would say 95% of our patients, you know, we see about a thousand hormone pellet patients a month.

get hormone pellets. They're convenient. They don't have to worry about it for three to five, sometimes six months, depending on the patient. And so there's all kinds of different modalities, but it just depends on the goals for the patient, the goals of therapy we're dealing with.

Yeah, I always like to give my patients my perspective of when I went into changes hormonally, you know, and some women don't ever have hot flashes, and that doesn't necessarily mean that you're not going through menopause.

So I never really had hot flashes, but what I did have was overwhelming fatigue. And the fatigue was not alleviated by hormonal cream. Like the cream, I couldn't tell if I was on or off it.

It didn't make a bit of difference. But the minute I got a pellet, or I'd say about a week after I got a pellet, it was night and day different. It was all of a sudden, oh, now I feel like myself again.

And it was just pushing that testosterone to what we consider super physiologic levels. But that's where I felt really good and that's where I started having more easier time building muscle and decreased inflammation, better sleep, all this kind of stuff.

So what do you say to other concerns about getting these testosterone levels to the super physiologic level? Great question. I wrote a white paper addressing this very thing.

And I'll tell you who has the best paper is Dr. Rebecca Glazier, G-L-A-S-E-R. You can Google her. All of her papers are for your audience are available on our website.

And she has a paper that is called Super Physiologic levels for a physiologic effect. And she explains why women as we age need higher serum or blood levels of testosterone to cause an effect to alleviate our symptoms.

And she explains it really beautifully. There's a lot of things that happen as we age. Our hormone receptor activity becomes desensitized. There's several, there's hormone metabolism, gut health plays a big role in this whole conversation as well.

And so, you know, some women and some people, women, men and women, have really high what we call sex hormone binding globulin, which is a protein that binds up your testosterone that's available.

And so all of those factors combined, and this is where I have to really educate patients and other clinicians, that blood level on your lab slip really doesn't mean anything because what causes the symptom relief and what exerts the action at the cellular level is not measurable.

The only way to measure that is by the patient going, my symptoms are gone. I feel great. And so 300 is my number or whatever it is. And so this is a big, you know, this is a big area of education.

And I did a lot of research on this and wrote a paper because there's. a lot of patients and doctors that are so confused about it. And when you really look at the literature, it speaks to over and over.

Our lab, the way we test for testosterone levels, especially in females, there's not a good methodology that's accurate and reproducible.

Who Is a Good Candidate for Pellets

And so we've got to kind of… quit, you know, let's put it this way, in the OBGYN world, in the gynecology world, when a woman comes in and complains of hot flashes and symptoms of menopause, there is no gynecologist that I've ever met that says, let's check your blood levels first and let's put you on this medication to address your symptoms.

Their blood levels not even checked. You haven't had periods in a year. You're having these symptoms. Oh, you're at menopause. Here's your estrogen. They don't follow and track that.

So why are we doing that with testosterone? We see that you have a relative androgen deficiency. You can see that with a free testosterone level. And then we treat you.

And when your symptoms are relieved, we shouldn't even be looking at it again after that. But, you know, we're kind of hung up on this lab thing and it's a sticky wicket.

Yeah, yeah, absolutely. What kinds of transformations do you commonly see in patients after beginning pellet therapy? And are there certain symptoms or conditions that respond especially well?

Yeah, so I will say again, you know, it's why I chose it for my doctoral research is depression in women. especially after that second baby, women will complain of just not only fatigue and all of the other things, but really the blues, the blahs for no reason.

It really impacts relationships, it impacts marriages. And what I was noticing early on after I started doing pellet therapy in my clinic was that women were able to come off their antidepressants because all of a sudden those symptoms were being relieved and the antidepressants were causing side effects that we were trying to get rid of like low libido, weight gain.

These are the top two side effects of antidepressants. So I was able to transition the majority of my patients off of their antidepressants and then I began to research it because I saw it experientially in my clinic.

And I was like, okay, there's got to be some science behind this. And of course there was, and I wrote a paper

about it. But that is a big one profoundly is moods, especially in women that are in their forties, because in our forties, not only is our testosterone low, but progesterone starts to get low.

And that's when we really see, I think our forties is the female midlife crisis age, if there is such a thing. It kind of hits in our fifties, and it really impacts relationships and marriages, and so I'm really passionate about that.

So that's a big one. But sleep, of course, and libido. Of course, women lose libido. Men don't really ever lose desire so much as they lose ability, but women actually lose desire significantly, and that impacts relationships.

libido, energy, brain function, moods. Those are kind of the top four for females, I would say. And for men, you know, kind of energy and brain function also.

And the biggest thing men complain of in this, you know, andropause timeframe is that kind of the desire to do the things they once loved is just meh.

Like maybe it's golfing, maybe it's fishing, maybe it's whatever it is. And then of course, as they lose testosterone, they get sarcopenic, their muscles kind of waste and their belly gets bigger.

And you know, you have the typical midlife looking guy and that can actually be fully reversed, as you know, with testosterone. Yeah, yeah, yeah, absolutely.

And I want to say one thing about this key that you're saying this. I have had patients on every modality of testosterone that there is available. And I will say hands down, hormone pellet therapy gives the best symptom relief because, I believe, of the 24-7 availability in the system and there's not a spike in it and a drop.

That roller coaster that people experience with other modalities really isn't, you know, you feel good for a few hours or a few days. It's just not as ideal.

You don't get that even distribution. Yeah. Traveling, got to carry it with you and all these things. Yeah, yeah. What are some potential side effects patients should be aware of with pellet therapy?

The side effects are for testosterone are typically women experience this are nuisance side effects.

Pellets vs Other Hormone Delivery Methods

There are no side effects of hormone. that are irreversible. They're just, we are not getting levels. It's not, a lot of mistakes that people make is they take the side effect profile of anabolic steroids with macularization and apply it to bioidentical testosterone.

It's not the same. So you don't have the hair loss. Testosterone is actually a metabolic hormone. It causes hair growth. In fact, that's probably the number one nuisance side effect is it causes hair growth in places a lot of women don't want it.

Especially if you have dark hair like me, blonde like you, you don't really use that problem as much. But us dark haired ladies, we definitely, dark haired ethnicities, we see that more.

So it's a nuisance side effect, but it's not really a game changer because you feel so good. You're like, eh, I'll just get lasered or whatever. So that's the main one for testosterone.

And, you know, for estrogen, it's really, I just don't see a lot of side effects unless women aren't getting enough progesterone or then absorbing their progesterone, they could have some breakthrough bleeding that's manageable, obviously, with the right intervention.

So the side effect profiles are dose adjustable. side effects that can be fully mitigated with just adjusting doses. And I'll say too, you know, one of the things that we teach, which you know, is just the art of hormone pellet therapy.

And, you know, and there is an art to it. There's a science for sure, and it's very backed by science. But there's an art to it and starting low and going slow and adding more as the patient needs it is a really good approach.

And I think the problem is there's so many people that just go do an online pellet training or maybe they do a one-day certification where they're just kind of learning how to put it in.

It's more than just a procedure, as you know. There's a lot of nuances that go into the dosing. And so I think when you talk about side effects in our clinic, we just we don't see a lot because we're experienced and we know how to do it.

But there's a lot of clinicians out there that don't really understand the nuances and more side effects in that population. Yeah, definitely. Yeah, we get the same concerns.

And especially if I get somebody who's been pelleted somewhere else and maybe had a bad experience because they were overdosed with stuff and it caused some side effects.

Yeah. And again, not permanent, but it can be scary and it can be, it's definitely annoying. But yeah, that's the biggest thing we see is patients coming to us from maybe another clinician that didn't have good training or maybe they did get good training and they only do two or three or five pellet procedures a month so they don't have the experience.

Really understand the nuances of it. I always tell my patients it's easier to pellet women but it's harder to dose them. It's harder to manage them. It's harder to pellet men but it's easier to dose them because If I do too much on a man, it's not as big of a deal.

They're just not going to have any, you know, much side effects. And even too much on a female, you know, maybe I think too with, you know, the pellets that we use, which have made a big difference because I've used pellets in the past that had a really rapid rise and a rapid fall.

You saw a lot more side effects. So one of the things that we really worked hard on and worked with a pharmacy to improve is this side effect profile.

One of the biggest ways we did that is to create a pellet with an ingredient in it that kind of almost acts like a time release. It slows down the peak in the fall.

You can slow down that peak. You mitigate a lot of side effects because a lot of the side effects for men, especially if they're on shots, come from that rapid peak.

So they get higher estrogen levels and they get higher, you know, red blood cells and their hemoglobin hematocrit, their blood gets thicker, you know, but you don't see that with a slower rise and a slower fall.

And I think that's the other thing we see a lot more side effect profiles in patients that maybe have come from another pellet provider that uses a pellet from a pharmacy that has that rapid rise and that rapid and that hormone dumping into the system.

It's not just, not all hormone pellet practitioners are created equal, but not all hormone pellets are created equal. And that's the key thing for your listeners to understand.

Yeah. Yeah. And I have to say, I absolutely love the pellets from Avexa Pell because I think they are just, they're great quality. I love the Tri-Am Sinalone coating.

on those. And that's been a real game changer because before I was using your pellets, a lot of my male pellets would reject. You know, there was always a handful of them where pellets would just kind of work their way out.

But with the triamcinolone coated ones, which is a steroid, it just decreases that inflammation and I haven't had any

reject. So it's, yeah, it's, it's a great, it's been a game changer.

So they, they actually granulate and mix in the try and sit alone with the whole pellet. So it's not only on the outside, but as it dissolves, it maintains that low and anti-inflammatory state in the bed where that pellet is.

And so it has been a game changer. I remember way back in the day, I would have guys that for no reason just, you know, well, well, my, my pellets are popping out again, you know, so frustrating.

And it keeps them from, you know, staying on the therapy, but this has been a game changer that tried to sit alone in fear. The pellet has been amazing.

Yeah, and I think I haven't found any other pharmacies that do the same thing. I think you guys know we our pharmacy has a patent on that pellet, so no one else can do it.

Benefits, Side Effects, and Dosing Nuance

Okay, awesome. Yes. So the patent wears out. Yeah. Plus, I mean, there's a whole there are pharmacies that have tried to figure out how to do their own formulation.

But let me tell you, It took us two years to get this thing right. I mean, it takes a long time to figure out the nuances of granulating a pellet and getting it just right.

And then you have to meet certain specs. So, you know, this probably might be on your questions coming up, but everybody says, oh, are the pellets FDA approved?

Well, the pellet making process because testosterone is a controlled substance is highly FDA regulated. And for males, pellet therapy is FDA approved.

Testipel is a pellet that's FDA approved. But for females, it's considered off label. But there are such tight controls that the FDA requires on your granulation of trimethylamine.

That is really hard to do. You can ask our pharmacy lab techs and the people that have worked on this for so many years, but they have to maintain like very narrow percentages and it's tough to do.

So I think that's one of the biggest reasons why a lot of pharmacies haven't really been able to figure it out. I'm going to add some brilliant chemists in there.

Yeah, that makes sense. So do you approach pellet therapy in perimenopausal women versus menopausal women slightly differently? Yeah, perimenopause, it's a mentor of mine used to call it no man's land because it can be all over the place for a minute to minute, day to day.

And it is a rough time for women because that's the time for women, as you know, for your listeners, when estrogen is fluctuates. And the fluctuation is what causes the misery, right?

So things can be happening like moods and heart palpitations and hot flashes and you know it's just all over the place and so but the problem is until you go 12 months without a menstrual cycle you really can't get a full dose of estrogen but with pellets what we have is a perimenopausal dose of estrogen that is a very low dose of estrogen that you can put in with your testosterone pellet that keeps kind of a basal like a baseline of estrogen so when a woman's fluctuating and her levels dip below which would have caused those symptoms she's got that kind of tank that's about a quarter full always so she doesn't run out of oxygen gas, right?

Yeah. Yeah. So that is just a game changer. I'll tell you, I'm 57. I went through this nine years ago and I kind of at first it didn't clue into me what was happening.

I just thought, I'm going crazy. I can't remember anything what is happening. I was having heart palpitations and

you know, I just, I wasn't even thinking that it could have been estrogen fluctuations, but I started thinking, I was like, wait a minute, my, my menstrual cycles have been really irregular.

And that's the first clue for women. Your menstrual cycles will go from every month, regular, do you skip a month? Do you skip two months? Do you skip three months?

And then then you're having them every month again. And it can last from up to eight years, like two to eight years. It can be a pretty big chunk of time.

Most women it lasts two to three years on average. But when I finally figured it out and got that perimenopausal dose of estrogen, wow, it just, I was like, it was like the lights came on.

I thought, now I understand what my patients are talking about when they say, you know, I felt like I was walking around in a fog and all of a sudden it's like, oh, I can see.

Perthin likes me again. Are there complementary therapies or lifestyle interventions that you recommend alongside pellet therapy to maximize results? For sure, I think the number one thing is the gut and the whole conversation of gut dysbiosis, meaning bad bacteria overgrowth in the gut.

In fact, I'm working with an endocrinologist right now that has written the Happy Hormones book, and she's going to be releasing it in the fall. But there is so much interplay between the gut microbiome and the brain and the endocrine system.

We're calling now the gut its own endocrine organ. So if you're not paying attention to what, I mean, Hippocrates said it centuries ago, what all disease begins in the gut.

And it really is true. And I think we're just now starting to get mainstream about this gut health thing. But the number one thing I think people can do, because we are toxic overloaded, just we can't help it.

If you're a breathing, living, walking human, you're gonna be, just toxic. And so the best thing we can do is give our bodies the support that it needs.

Our food is very nutrient deficient in this country, even just the soil that it's grown in. So unfortunately, we do have to supplement with key things that optimize hormones like good health probiotics, because when the bad bacteria in your gut overgrows, it impacts your hormone metabolism and can increase the retention of more cancer-causing hormone metabolites.

We don't want that. We want those to scrape through the bowel. Also, diandlmethane, which is What's found in cruciferous vegetables helps push our estrogen metabolism down a healthy metabolism pathway.

Vitamin D plays a huge role in hormone receptor activity. Iodine plays a huge role in fire reproduction and selenium for Hashimoto's. And so, you know, those are kind of the big ones.

And then we developed a hormone metabolism kind of supplement that really helps with your free testosterone levels and. things like that, but you have to pay attention and get some key nutrients to supplement to help your hormone optimization.

And then you got to take care of that gut. And if I had it all my way, I would just, you know, I tell patients, if you just not eat anything that opens in a package, you know, as much as possible, I mean, just cutting that one thing out, you'll be amazed at the inflammation that comes down in your body, but it plays a role.

I mean, the inflammation plays a huge role in this whole conversation. I think that's one of the biggest things that I've learned over my years of doing pellet therapy is that the very few percentage of women that come back and say, I didn't feel any different after a pellet.

And I know that those are the ones that we didn't address some source of inflammation, usually coming from the gut. Yeah, and then we have to go back to say, well, what are we missing?

Because there's obviously, there's some inflammation that's not allowing you to feel the benefits of these hormones because- Yeah, because when you have an inflamed gut, lipopolysaccharides, it causes brain inflammation and you're depressed and you're moody and you can't think.

So all the symptoms that I'm trying to fix with the hormones, you can't really tell because you've got another root cause. So you had two root causes.

I fixed one with the hormones, but we got to fix the gut. Right. It's just like if you're sick with a virus or, you know, a bacterial infection or something, you're not going to feel the benefits of the pellets either because you're going to be your body's fighting off, you know, that inflammation and so.

So you've trained thousands of practitioners. What are the most common mistakes or misconceptions you see amongst clinicians just starting out with pellet therapy?

Perimenopause, Menopause, and Supporting the Gut

You know, I think the biggest mistake that I see new clinicians that come and spend two days at our training and we, I mean, we have just developed so much to help clinicians stay.

We have a forum for these clinicians to ask questions and stay engaged. I think the biggest mistake is the ones that come to training and don't go back and start doing it because you have to actually start doing this therapy so you can become proficient and good at it.

And so that's the biggest mistake. But besides that, I think the other one is implementing bits and pieces of the method. In other words, maybe they'll just do pellets, but they don't really want to mess with supplements and they don't care about the gut.

Well, okay, you're going to help about 40% of your patients feel better for a little while. But the other 60% need this extra help. So that is a big mistake I see clinicians make.

That's really probably the biggest one. And just again, not doing it because it takes practice. You got to get in and do something to get good at it, right?

You learn how to ski, you don't go ski once and then expect great at it if you do it once a year. You got to practice and that's how you learn. Everything I teach, everything I train on is what my patients taught me throughout the years.

And that's, you know, that's learn stuff. So in your book, Hormone Havoc, you aim to educate both patients and providers. What do you think is still misunderstood about hormone health in mainstream medicine?

It's the allopathic model. Like, I think the number one thing is when I say allopathic, just for your listeners, it's the the training that we all got to give a medication to address a symptom.

The biggest thing, and this is why I hone in on our trainings you've seen, we spend the first five hours reviewing literature, you know, looking at the studies on how estrogen, especially, but estrogen and testosterone, protect the brain from Alzheimer's disease, dementia, strokes, osteoporosis, cardiovascular disease, breast cancer, prostate cancer.

I mean, when a man's testosterone is low, his prostate cancer risk goes up exponentially. Right. His risk goes up exponentially. So I think that still the biggest thing is clinicians can't make this connection that hormones aren't just for reproductive health.

They are literally for every single body system. Like I said earlier, If you have a hormone receptor sitting on a cardiac cell, a brain cell, a heart cell, a brain cell, a bone cell, a skin cell, that means that hormone has a job to do in that cell.

So we have to kind of get away from this, oh, it's just for hot flashes and libido and directing all fun to men. and realize that we're really preventing chronic disease.

And the earlier you can start really looking at this, the better. I mean, I'm seeing young guys, you know, 20s and 30s with very low testosterone has everything to do with our diet.

diet, the toxins in our environment and head trauma. Yeah, I didn't realize this until I did a course looking at this, but you know, head trauma really affects your hormone production.

And so, you know, a lot of our veterans who come back with blast injuries and such, you know, they are really low testosterone and maybe they're having behavioral changes, anger outbursts because their testosterone is just in the toilet.

Can I tell you a story about that? Yes, please. Yeah. So I have, I had a patient who came to me and her husband was a vet. He was a paratrooper. He jumped out of, he jumped out of helicopters and she goes, you know, you think my husband, like he has a lot of these symptoms.

I said, well, yeah, we should get his testosterone checked. And she goes, well, he goes through the VA every month. He's on disability for his. depression and this that and the other, you know, I think they would have tested that.

And I said, probably not. Unfortunately, our veterans get the worst care and I'm working hard to change that actually. But so anyway, she brought him in and this guy's testosterone was 19. He had hit his head.

I said, have you ever had a traumatic brain injury? He goes, how many have I had? It should be. Yeah. I mean, it was amazing. This guy had such debilitating depression, he was honorably discharged from the military.

And we were able to reverse that depression with hormone optimization and hormone pellet therapy within six months. actually he really started feeling the benefits earlier than that and that that's just a huge example and I love that you said head injuries because here in the south where we got all these young kids getting banged up with football you know in especially high school football here in in Texas you see this a lot but even college ball and the pro ball players The other thing I'm really trying to do is educate the NFL Alumni Association about testosterone.

These guys, when they retire, unfortunately, they can't get it while they're playing. But I've had pro ball players that could not wait, that have treated their wives, pro football players.

The day they got, they retired. They came in to get their testosterone because they had it tested. They knew it was low, but they can't get replacement because it's considered performance enhancing.

And it's a catch-22 because every time they hit their head, you know, and let me tell you what else, within 20 minutes of a TBI, even a mild concussion, you have intestinal permeability, leaky gut, junctions open up.

So it causes issues with the gut too. So I love that you brought that up and I appreciate that because we don't talk about that enough. Yeah, yeah, absolutely.

That is definitely not well known enough. I don't even know that I wrote about it in the book. I should probably write a chapter about it because it is.

It's a big deal. It's a really big deal. What advice would you give to patients who feel dismissed or confused about their hormone symptoms and don't know where to start?

Well, come see you or a provider that's been trained and understands. I mean, you know, I have to say you got to give your clinicians a break. If you don't feel heard or understood, it's probably not that you have an uncaring doctor.

It's probably you have an uneducated doctor and that's not their fault either because we're not taught these things in our primary programs.

Training Clinicians and Correcting Misconceptions

You have to. you have to seek help. So if you have a doctor that you love that you think could really help people, then you send them to our website and go, go get trained in this stuff.

But I think finding a provider that has been trained and really does this in their practice like you, I think that's a big, big point for your listeners.

If they're somewhere not local and you're too far to see them or whatever, when they're looking for somebody that does this, ask them. How many hormone pellet patients do you see a month?

How many pellet procedures do you do a month? Because if they're doing less than 25, you probably want somebody that's a little more experienced. Yeah, yeah, absolutely.

Well, looking ahead, where do you see the future of hormone optimization and integrative medicine going? Like, what excites you most? Well, I'll tell you, and I'm going to say, please hear me.

This is not a political statement, but I'm very excited about where we are with the mindset around disease prevention. in our current government climate.

And we have an opportunity right now to really radically change some policies with food and things like that. And that's one thing I'm actually a part of a Healthy America First Women's Initiative for Health for Women and Children.

And I'll be in DC in two weeks. actually to really help start developing policy around this. The current people that are there really are interested in this and realize that the chronic disease, we are the wealthiest and we have some of the most technologically advanced healthcare in this country, and we are one of the sickest nations in the world.

That shouldn't happen. That shouldn't be happening. And so we're finally recognizing that, hey, food plays a role and hey, maybe we need to start looking at disease prevention and root cause.

And so I'm really excited about the opportunity to, to educate lawmakers. And that's really what I'm excited about because, you know, we have lawmakers in DC that are on both sides.

It's not a, it shouldn't be a political, that pipeline thing. that this is American, we're all human, right? So I'm really excited about that. The scary part that I'm learning is that it takes a long time to make those changes, but you know, you got to start somewhere and having an opportunity to kind of sit at the table with and educate some of these lawmakers I'm very, very excited about.

That is great. That is really exciting. This needs to be standard of care, especially for women. Testosterone therapy, especially Pella, it should be standard of care for women because there is no FDA approved synthetic drug that the pharmaceutical industry has created to address testosterone deficiency in women.

It's an unknown phenomenon. right, because the drug companies are who educates our medical schools. And that's another thing that our administration currently is really looking at is getting the bias out of medical school.

I mean, these are things that, again, doesn't matter your political affiliation. This is just the right thing to do. Yeah. And I get that question a lot of, you know, if this is so great, why isn't it part of standard medical care?

And I have to go back and say, well, you know, ages ago, the Supreme Court made a decision that you cannot patent something that occurs naturally in nature, like hormones.

It's like you can't patent water. And so the drug companies have no incentive to, you know, have everyone on bioidentical hormones because they're not making a big profit off of this.

You know, the interesting thing about that to me is estradiol patches are bioidentical. My guys progesterone is bioidentical. Like, you know, so it's just, there's no, there's no money in it.

That's the bottom line. I mean, it's cheap. It's cheap medicine. And I'll tell you, I'm not, I'm cynical, but I'm not, I'm being cynical, but it's truthful.

The Future of Hormone Optimization

We don't want cures for disease in this country. They're very profitable. Obesity is very profitable. Cardiovascular disease, diabetes is very cancer.

Very profitable. So why would we push a therapy or therapies that help decrease disease burden, Alzheimer's disease? Oh my gosh. I hate to be a cynic, but you can follow the money.

It's easy to see. I'll give you an example. So this is a really interesting phenomenon that the number one cause of non-Hodgkin's lymphoma is glyphosphate, which was created by Monsanto Roundup.

We're the only country that has not outlawed glyphosphate on our food. First of all, let's start there. Second of all, Monsanto was bought by Bayer Corporation.

Bayer Corporation also has a chemotherapeutic drug that treats non-Hodgkin's lymphoma. So they own the cause and they own the treatment. That should not be happening.

That sounds like a huge conflict of interest. And that's just what we know about. And there's so many stories like this that when you get to rubbing elbows with people that are in the know, you kind of go, this is sickening.

What has happened in our boundary? So I'll answer to your question, but I'm really passionate about it because it is, I mean, you think about our kids and, you know, just so many of the diseases, you know, type 2 diabetes was, used to be called adult onset, you know, now it's not because one in seven kids has type 2 diabetes, which is a totally, you know, diet driven thing.

Diet and toxin driven. Yeah. And baby formulas, I mean, we're seeing more and more with baby formulas and how we start babies out, just getting them addicted to the chemicals and the sugars that are in baby formula.

And it's a real issue and people need to wake up to it because it's really real. Yeah. Well, thank you so much for joining me today. I'm going to put your information about Avexapel on the show notes.

I know I will refer that patients to it, patients who are living outside of Texas, and I only see Texas patients, but they can find somebody who is a provider in their area on your website.

I appreciate you having me on, and you know, obviously I'm passionate about it, and thank you for giving me an opportunity to share. Absolutely. Well, thank you for joining us today on the Functional Edge podcast.

I hope you've enjoyed this insightful conversation with Dr. Terry Danai and come away with a deeper understanding of how hormone optimization can be a powerful tool for restoring health and vitality.

I mean, really, hormone optimization is the caution of any anti-aging program, wherever it is. You know, you have to have your hormones optimized. To learn more about Dr.

Terry Nye's work and Avexapel approach to hormone therapy, be sure to visit avexapel.com. And if you're curious about whether hormone optimization might be right for you, I encourage you to start a conversation with your provider who understands the full picture of your health.

So until next time, I'm Dr. Julia Ward. Stay informed, balanced, and keep leaning into the functional, to the edge of what's possible with your health.

Thank you for tuning in to Doctor Talks. We hope today's episode has enlightened and inspired you on your path to optimal health. Each day is a new opportunity to make choices that empower your well-being.

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