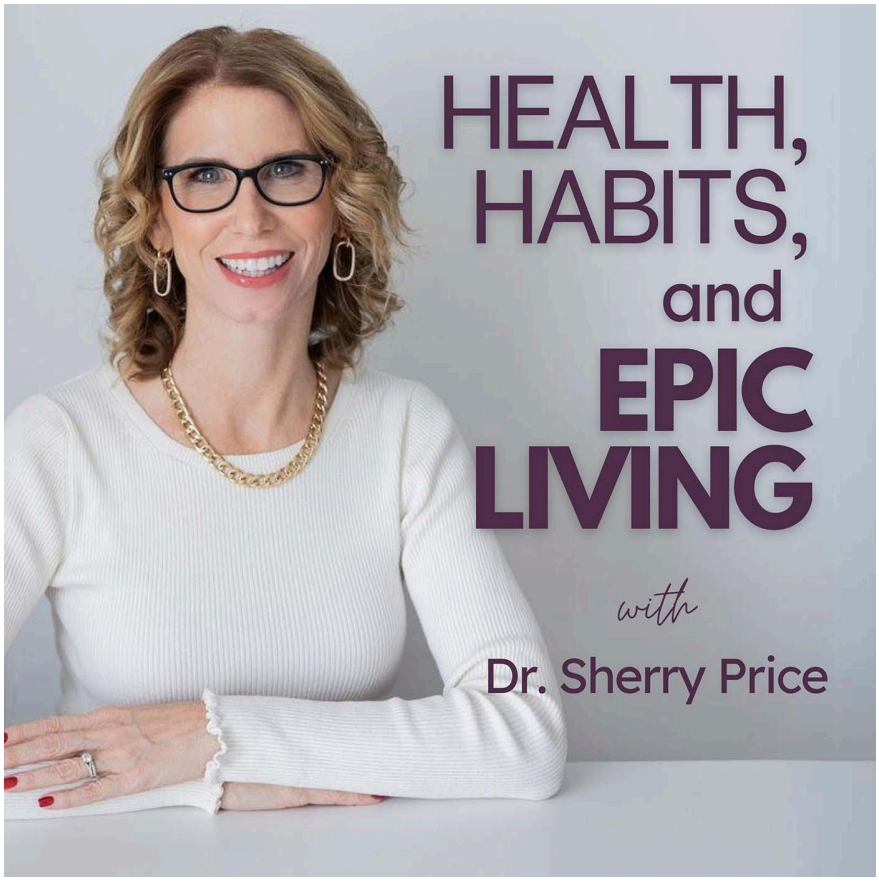
Ep #174: The Truth About Estrogen in Perimenopause and Beyond with Dr. Felice Gersh



Full Episode Transcript

With Your Host

Dr. Sherry Price

Ep #174: The Truth About Estrogen in Perimenopause and Beyond with Dr. Felice Gersh

Welcome to the *Health, Habits, and Epic Living* podcast. I'm your host, Dr. Sherry Price. The goal of this podcast is to educate and enable empowered women to take the next steps towards achieving their health, wellness, and lifestyle goals. Let's get started.

As a woman in midlife, have you ever thought about what happens to our hormones as we go through this pivotal change in our life from perimenopause into menopause and beyond? Well, today on the podcast, joining me is Dr. Felice Gersh, who's going to tell us about the truth around estrogen and what happens through this pivotal time in our life.

Dr. Gersh holds degrees from Princeton University and the University of Southern California School of Medicine. She is fellowship trained in integrative medicine from the University of Arizona School of Medicine. She is an award-winning physician with dual board certifications in OB GYN and integrative medicine.

Dr. Gersh is the founder and director of the Integrative Medical Group of Irvine, a practice that provides comprehensive healthcare for women by combining the best evidence-based therapies from conventional, naturopathic and holistic medicine. Dr. Gersh is the bestselling author of *PCOS SOS* and the *PCOS SOS Fertility Fast Track* as well as the book, *Menopause: 50 Things You Need to Know*. She has numerous published articles in peer reviewed medical journals, and is a prolific lecturer. Today I am thrilled to welcome Dr. Felice Gersh to the podcast.

Sherry: Well, welcome Dr. Gersh to the show. I'm so excited you're here and so thankful for your time. And as a patient of yours, I know I've learned a tremendous amount about perimenopause and hormones. And so I want to use this opportunity to start in, in discussing what happens for women in this whole world of perimenopause, when it starts, what the women experiences, and common symptoms. If we can start with that discussion, that would be great.

Felice: Well, it's a universal event in every woman's life, assuming, of course, she gets to be in somewhere, usually late 30s, 40s or could even be into the early 50s. So there is definitely a range and there's a range of everything, not just the age when this is all happening, but the scope of symptoms. So it's very highly individualized, but it is totally universal. It doesn't matter what your continent is, your ethnic background or anything. The best we could ever do is slightly delay it, maybe by eating a better diet and having a less toxic lifestyle, but that's about all we can do.

So what happens is when we are born as little females we have a set number of eggs in our ovaries, unlike men who continually make sperm for their entire life. We have a finite number of eggs. And in order to make those amazing life hormones, estradiol, that's the estrogen that the ovaries make, and I call it psychic progesterone. You have to have eggs. It's not possible to make those hormones once your egg supply has gone.

And as your egg supply diminishes with age and also the eggs themselves become of what we call poorer quality, they're just kind of getting old and they don't work as well. Our hormone production becomes less predictable. The cycles, the menstrual cycles often will change in a variety of ways. They may become shorter cycles, and that happens because the luteal phase, the second part of the cycle after ovulation, may become shorter because you're not producing progesterone as well. So that is a common thing.

Or sometimes the cycles become more irregular because ovulation becomes less predictable. And the cycles may become lighter because the amount of estrogen produced is less. But because you may have anovulatory cycles where you don't ovulate at all, you may develop some really heavy bleeding, what we call dysfunctional uterine bleeding. So there's a whole variety of changes that can occur with the menstrual cycle. But the most classic would be that the cycles get shorter and lighter.

But you've got to be prepared for any possibility with menstrual changes. And because your brain, which is amazing and it has sensors for these

hormones, and when the estrogen production from the ovaries goes down, the brain has sensors that say, “Hey, ovaries, I need to have more estrogen.” So it puts out the signal to the pituitary gland, which then puts out its hormones, luteinizing hormone, LH and follicle stimulating hormone, FSH to the blood, goes into the blood, which ultimately circulates and goes to the ovary to try to get the ovaries to make more estrogen.

But here’s the problem, the ovaries just don’t necessarily do that. The LH stimulates the ovaries though to make the precursor hormone, that all estradiol is derived from, which is testosterone. So some women, as they are in perimenopause, will have an increased production of testosterone. And they say, “What the heck? What am I, a teenager again? I’m having acne. Suddenly I’m getting these facial hairs, the hair on my head is thinning.” And that occurs in about half of women.

So the whole notion that some people have that you need to give testosterone as an extra hormone around the perimenopause and menopause is not true. Now, some women do benefit from it, but others actually will then have even more acne. So the production of testosterone does not require a single egg.

A woman from her ovaries will make testosterone to some degree, her whole entire life, which is why now we know that removal of the ovaries for benign disease. This is a terrible thing, as a gynecologist, I kept saying, “What are you doing? Why would we do such a thing?” And that would be, someone has prolapse of their uterus or they have fibroids, just heavy periods because they’re perimenopausal or some such. And then they would say, “You need a hysterectomy.”

And then while we’re in the neighborhood, since you’re over 40, we’ll just take out your ovaries because you’re going to go through menopause and you don’t really need them. Well, that was a huge mistake. That actually statistically shortens a woman’s lifespan because she still, first of all, you want to get every last drop of hormones out of your ovaries before they cease to produce the estrogen and progesterone because the later you

have the ongoing production of these hormones, the better off you are because they're really essential for life.

And taking out the ovaries even when they're not producing any estrogen or progesterone any longer, but they're still making testosterone, also actually is very bad. So keep those ovaries unless they absolutely must come out due to cancer or some other just completely insolvable problem like massive endometriosis or such. So ovaries are important forever. So these are really key things.

And also just to know, testosterone, there's just been a surge of people prescribing testosterone at menopause without even understanding what the heck is going on. Because the production of testosterone is really independent of the estrogen, except that it can be produced in higher amounts when the estrogen goes down lower, like in the perimenopause.

But just so you know that only 25% of the circulating testosterone in a reproductive age woman comes from the ovaries. The other 75% or close to it, comes either directly or indirectly through androgen precursors from the adrenal gland, which has nothing specific to do with menopause. So there's a lot of misunderstanding out there. That's why I love being able to have this conversation, because there's just so much confusion about what the ovaries do, the adrenal glands, even the thyroid.

And what happens at perimenopause because this situation, we can call it, is going to affect every woman. And then in terms of all the other symptoms that women can experience, well, the classic, of course, is night sweats and hot flashes, which affect about 80% of women, so it's really common. They can be highly disturbing to quality of life and sleep and so on. But they also now have been shown to be associated with increased risk of dementia, of heart attacks and strokes.

So they're not only potentially miserable, but they're also a sign of escalating risk for those really terrible things that are always associated with aging, but I associate them with hormonal deficiency states. Because

that's really what is the precursor to all of these so-called diseases of aging. You just go down this path of one deficiency after another in the body or insufficiency, but it starts with hormonal insufficiencies.

And then other things that relate to estrogen insufficiency, which would be palpitations, joint pain, memory problems. Women can't remember names and nouns, they're pretty good at adjectives, but they can't get the nouns out. And sleep quality, mood issues, the incidence of depression and anxiety, doubles. And if a woman has earlier issues, for example, she previously had postpartum depression or PMS or other anxiety depression states, her risk goes up fourfold. This is huge.

Women in their 40s, guess what? 25%, can you believe this? 25% are on antidepressants today. The problem isn't loss of antidepressants medication. It's the loss of these vital life hormones that have enormous repercussions when you don't have enough of them in every organ system, including the brain and the whole neurological system. The autonomic nervous system, which regulates all the things we don't think about, digestion and temperature and pulse and all of that.

That's why we can have issues with palpitations, digestion changes. The incidence of acid reflux GERD, gastroesophageal reflux prior to the perimenopause and menopause. Men have substantially higher risk and incidents of that condition. After perimenopause, menopause women have a higher incidence of GERD than do men. So, so many things start to happen. Women in the perimenopause, this is what we would call the occult problem.

So there is the obvious and then there's the invisible. For the invisible it can be developing plaque in your arteries and hypertension and changes in the heart muscle itself because of energy deficiency. Because there's so many things that are different in women with their immune systems and their heart and their mitochondrial function. So all of these things are impacted by these fluctuating and ultimately, declining states of hormone production.

And another just interesting thing to warn people about, if they don't really want to have a set of twins is that because the brain perceives a deficiency state of estrogen, it puts out more of the hormones to stimulate the ovary to ovulate and make the estrogen. Well, in the early part of the perimenopause, there still are eggs. So it's just that nothing is quite as good as it used to be, nothing is as predictable, but there still are eggs.

And suddenly you get what is really the equivalent of a hyperstimulation, the same type of thing that they do when they're trying to get a lot of egg retrieval like to do in vitro fertilization, or they want to do egg freezing. And they want to collect a lot of eggs at once and they do this sort of overstimulation with the form of hormone, the follicle stimulating hormone part of the fertility workup and treatment.

Well, the body makes more FSH and that can trigger multiple ovulations. So the highest risk of demographic for getting fraternal twins is perimenopausal women. So I didn't think I could get pregnant, oops, now I have twins. So just be aware that fertility is declining but it isn't gone. And we never know when it's gone exactly. It's gone when it's gone, but you can have an oopsie set of twins and, well, just kind of life changing, but it can happen. So be aware of that situation and potential.

Sherry: Yeah. That's such a helpful overview of what's going on in that perimenopausal realm and it can last 10 to 15 years or more. And symptoms gradually happen for some women. Symptoms can be full blown and just come on suddenly. I'd like to transition now and talk really about estrogen because it was through you that I learned all these estrogen receptors are throughout the body. They're in our brain. They're in our bones.

And I think when we get this decline or fluctuation of estrogen, it really can impact some of the symptoms that you've already mentioned, cognitive decline, forgetting nouns and words. And the anxiety that can come from low progesterone and stuff. So can you talk more about estrogen and all of

its effects and why it would be so protective to keep our estrogen levels higher.

Felice: Yes, I always, when I give lectures, I always give pop quizzes, but I always say, “But don’t worry, you all will know the answer because I’m giving it to you right now.” The answer is always estrogen because estrogen is literally everywhere doing incredibly important things in every single organ system. So the prime directive of life, this is essential, and I figured this out many decades ago because I was delivering thousands of babies in that particular chapter of my life.

And it became quite evident to me that the female body was designed to make babies. And in order to be successful at that, to be fertile, to be successful in pregnancy and then being able to nurse and then raise that child to its own sexual maturity and then do this multiple times over, you really need a healthy body. Now, remember that humans are the only species on planet Earth that purposely determines when and if they want to have children, which is totally what I believe.

I don’t think anyone should have kids when they’re not interested or they don’t want them or it’s the wrong time because that’s the human condition is that we should be able to have self-determination about those things. But fundamentally it’s important to recognize that the female body evolved for the purpose of being pregnant and being successful multiple times over in order to sustain the human population. That’s what it’s all about. So how can you be healthy? Well, you need to have all the right food, the right amount of food.

Well, what controls that? Estrogen controls your entire appetite regulation system because in a healthy individual, this is kind of lost these days. The body is finely tuned so that the appetite controls how much food, aka, energy you take in to match the energy needs, the expenditures of the body. So you have this perfectly fine, perfectly matched intake so you don’t become too skinny or too overweight, but that’s sort of all messed up today.

But that's how we're designed, when you have proper estrogen, it regulates the appetite.

Well, what about everything else in the body? What about your digestive system? What about your circadian master clock in your brain? What about having a healthy musculoskeletal system and functioning joints and all of the things that you need in order to survive and manage and get through life in a healthy state? All of those are overseen by estrogen. Estrogen I call the hormonal glue that keeps all the organ systems working optimally and in the same time zone.

Because now we understand that everything in the body is on a timer and everything works according to the way we were genetically programmed and all of that is controlled by estrogen. In fact, in the master clock, there are estrogen receptors. And that is finely and critically related not just to helping you to know when to go to sleep, when to wake-up, when to eat, and how your organs will work in the same time zone. But it's also completely interconnected with the entire reproductive system so that everything is really working in synchrony.

In fact, we know, for example, that women who work in different types of jobs, where they work at night, they work in different time zones, they fly across the world. They're flight attendants, they're nurses, doctors, police officers, firemen and so on, where they have to work sometimes in the middle of the night, sometimes in the day. And they have all these fluctuating schedules and so on or they always work the night shift, but they don't work seven days a week.

They're not flipping their circadian rhythm every day. Maybe they work four or five days a week where they work at night and the other times they're not working and they'll have a day off. And then they're up in the day and it's all messed up. These terrible, unfortunate, necessary for our society, it's something like 25% of the population now has crazy schedules where they have to either work continuously or sometimes at night. They have messed up menstrual cycles. They have reduced fertility.

Ep #174: The Truth About Estrogen in Perimenopause and Beyond with Dr. Felice Gersh

They tend to have weight gain, depression, insulin resistance, sleep problems, all kinds of problems when you have these circadian rhythm dysfunctions. Because the reproductive system is connected to every other system. It's all one body, you sink or swim as a body. And to keep everything working together, including the immune system, every immune cell in the body has estrogen receptors. And women have a different sort of immune system in many ways than a man because we have programmed differences.

For example, the female body is smaller, it's not an accident. That's in pretty much every species, and why is that? Because it takes a lot of energy to maintain a larger body. A man who tends to be bigger than a woman, has more bone, more muscle, they have more tissue, they're bigger. And men have to spend a lot of energy always making new sperm. Well, women have already got their supply of eggs. They don't make new eggs and they're smaller.

So what do they spend a lot of their energy on? Their immune systems. Women have more immune cells than men. They make more antibodies. They have a more robust response to infectious pathogens. That's why women tend to survive better. When we had the COVID pandemic, the survival was in terms of mortality, we'll say 60% of those who died in age match, so the same age across the board, 60% were male, 40% female.

Females have a survival advantage with sepsis, with trauma, because we are better at healing. We have more estrogen. We have more immune cells. Our immune cells are also programmed not just through estrogen, but through our extra special X chromosome. So we're just different in a lot of ways because of having that dual X chromosome, which isn't completely silenced. And most of the active genes are actually related to the immune system.

And so we're just really different and this is not being recognized in pharmaceuticals or in the whole process of menopause and perimenopause. It's just ignored, almost completely ignored by the

conventional medical world, except for giving antidepressants. And often drugs to shut down stomach acid because women start having indigestion. They can't sleep, so they get sleeping pills, antidepressants, drugs to block their stomach acid, the PPIs. This is not the right approach. That's why I love talking to you.

Because the fundamental problem is hormonal insufficiency. And then you have such a widespread array of manifestations because loss of adequate estrogen is going to manifest itself in a whole variety of ways in every single organ system. And it just happens that it just becomes more predominant in one organ system versus another in some women. So they write these articles which always shock me every time because it's a giant duh.

But there'll be a published article that says, "We just discovered something. There's a link between Alzheimer's and osteoporosis or there's a link between breast cancer and having heart disease." I mean, they're all manifestations, but different manifestations in different organ systems of estrogen deficiency states. So when you lose your estrogen, your immune system is not as good at surveilling, so cancer increases. You're not maintaining your immune system properly in your brain as well. So you have more neuroinflammation.

The vascular system becomes less healthy. So you develop high blood pressure and the blood brain barrier becomes leaky and the gut doesn't have the healthy gut lining cells. You change your whole microbiome in your gut and also in your mouth, so you have more tooth loss. You have more vaginal infections. The tissue involved in the musculoskeletal system starts to degrade because estrogen is essential for the production of collagen.

So you lose your structural support, your fascia. So you start to have more vaginal prolapse and the rectum, the bladder, the uterus start falling down and it's like, what the heck, they're falling out. That's a huge industry. It used to be with meshes. Now they're trying to come up with other stuff and

so on because the structures that keep the tissues, the organ systems in place became so weak that everything's falling out. And you end up having, by the time a woman is 65, she has more strokes and ruptured aneurysms than do men.

And the protective effect of estrogen in terms of heart attacks and strokes has long gone by then, and women die more from their first heart attack. Women have, like I mentioned, more strokes, ruptured aneurysms. They have two and a half or more times the incidence of Alzheimer's age matched with men because of loss of estradiol in the brain.

Estradiol in the brain is essential for creating memories, for proper mood, for regulating the autonomic nervous system. That's why the thermoregulatory centers become dysregulated. And that's why you get the night sweats and hot flash. That's all related to the autonomic nervous system. And the cells, the neurons in the body that make neurotransmitters, serotonin, dopamine, acetylcholine, which are essential for creating memory and proper mood.

And from serotonin comes melatonin, which maintains proper sleep and it's antioxidant, it's anti-cancer. All of that relies on adequate amounts of estrogen, which are not there anymore. So I mean it's just you can go organ system by organ system.

Almost everyone knows that after menopause women get more bone loss and they have more osteoporosis. And that's actually an immune related problem because there are special cells that are embedded in the bone that are part of the immune system called osteoclasts. And they're the cells that gobble up, they're a specialized version of a macrophage, they're the gobblers. So they're the ones that dissolve and then gobble up old dead cells, damaged cells throughout the body and they have modifications in different organ systems and they circulate in the blood.

Well, the special type of immune cell called the osteoclasts, is embedded in the bone. Without estrogen to control its function it just goes into the state

of inflammation and a weapon of mass destruction without control. A similar thing happens in the brain and it starts dissolving healthy bones. In the brain, it can start dissolving healthy neurons and creates havoc. So the solution isn't to just paralyze the immune system.

That's what a lot of these drugs do through different mechanisms so that you can't gobble up bone. But you have to gobble up old dead bone because bone is dynamic living tissue and it has a lifespan. Every bone cell lives about seven years. When it's dead, it needs to be gobbled up and then you need a new fresh bone cell created. That's the beauty of having stem cells and rejuvenation and life itself to have healthy bones.

Well, when you have the drugs that block the osteoclasts, you're not creating new bone, you're just preventing bone from being absorbed and dissolved and gobbled up. And you're blocking good bones from getting gobbled up. So that's a good thing for a while. The problem is you're also blocking dead bone from being gobbled up. So over time, over just a few years, you end up with a skeleton that's mostly composed of dead cells. Well, that's very fragile and very unhealthy.

That's why they say you have to stop those drugs, but some you can't stop because if you stop the drug like Prolia, you massively will lose bone and there's no good solution. So this is not the solution. In addition, just talking about bone, because so many women die from fracture related complications. Over 50% of women will have an osteoporotic fracture in their life. And it changes the quality of life, it often ends life. And almost everyone has a family member, typically a woman. 80% of osteoporotic fractures are in women who have had a whole change in everything because of a fracture.

And estrogen not only regulates these special immune cells in the bone, keeping them from doing the wrong thing, keeping them doing the right things so they only gobble up dead bone, not good bone. But also the other cells of the bone, the supervising cell, the osteocytes, are controlled by estrogen. And then the bone cell that makes new bone, the osteoblast is

controlled by estrogen. So when you have adequate estrogen therapy, you will not only control resorption or gobbling up a bone, but you also maintain the production of new bone which there is no drug that does except estrogen.

So just focusing on just that one part of the body, the bone. And then you add in the ligaments, the tendons because elastin that keeps joints flexible. So without estrogen, things that used to flex and bend, rip and tear. That's why you have women who go out and they do the same thing they used to do, they go to Zumba class and they're moving their arms and then suddenly they get a tear in their shoulder. What did they do? They lift their arm over their head. Or things that they never would have injuries for, now they're getting injuries because the tissue lacks the flexibility.

Without estrogen, things get stiffer. They don't have that flexing because of the production of elastin is not happening. So you lose collagen and then you lose the cartilage. So you start having fraying of the cartilage and that's how you get osteoarthritis. Women have more joint replacements than men, substantially more because of loss of estrogen. Now, men often will have football injuries or whatnot and then they have to have joints, but we're talking not about trauma related joint problems.

I'm talking about age or hormonal deficiency related to osteoarthritis which is loss of the collagen and the cartilage that is made from the collagen that acts as sort of a coating on the bones in the joints that keep it being what they call bone on bone. So you don't have severe pain and the joint continues to work, that requires adequate estrogen. So like I said, you can go from every organ system. You could talk about the eyes, cataracts, and glaucoma are related to loss of estrogen.

And hair, now, every woman likes to have hair. Not only does testosterone increase around perimenopause in many women and then become dominant because the estrogen goes down. But the testosterone continues to be produced, creating what's called angiogenic alopecia. But estrogen itself has tremendous direct effects on hair growth. It increases the

thickness and the blood supply to the scalp to create better hair. And it maintains the growth phase of hair longer so you have more growing time.

You have a bigger growing season if you have adequate estrogen to grow more hair, otherwise it falls out. You have this little fine hair and it's short and little wispy hairs. No woman likes that. And how about wrinkles? There's actually published data that if you put topical estrogen cream on wrinkles, now, I'm not talking about giant grooves, I mean, there's a limit here, but fine line wrinkles, in just two weeks, you'll see reduction in wrinkles because estrogen creates a healthier layer of every part of the skin, including, like I said, collagen, but not just collagen.

It increases hyaluronic acid and it increases the ceramides, the moisture retaining and moisture in the skin itself. There's not one part of the skin that isn't benefited by estrogen. And that's why women tend to have faster aging in terms of visible wrinkles and things than men because of loss of their estrogen. And I know we've all seen women and maybe we missed them during the pandemic, then we saw them just a few years later because time flies and you haven't seen Jane for five years. And when you saw her, she was 50 now she's 55 and you think in your head, wow, Jane really aged.

And you think, well, maybe you need some Botox and fillers or maybe you really need some estrogen. So it's really amazing. And it's another whole industry, not only doing prolapse surgery for falling out female organs but also the urological consequences, the incontinence. That's another giant industry. Diapers for women as adults is a billion dollar industry. Talk to Procter and Gamble, how many Pampers for adults do they sell? And no woman wants to have to wear, they advertise them on cable television, protective diaper type things, because they can't control leaking urine.

All of this is related to loss of estrogen. So we need to just be honest about it. Just because we all go through perimenopause and then ultimately menopause and we all have a lot of different manifestations because it involves every organ system. And it's interesting how different bodies sort

of pick and choose which ones have the worst outcome in any particular woman. But the fact that it's natural and universal doesn't make it beneficial.

And we have to think of it as a hormonal deficiency state, just like if a woman had hypothyroidism. Nobody would say, "Well, you know what, you have really low thyroid, but it happens. So have a nice day." No, we would say, "We'll give you some thyroid." Nobody would say, "We won't treat your low thyroid. We're just not going to do it." What is that all about? Or pick any other hormone, your adrenal gland is not working and so we're just not going to replace any of the hormones. That doesn't happen.

When your ovaries aren't working, we should replace the hormones and do it in the most physiologic way. When we treat hypothyroidism, we measure the TSH to see if the brain and its sensors are saying, I have enough thyroid. That's what the TSH is manifesting. TSH is the equivalent of FSH and LH from the pituitary gland. It's the stimulating hormone to the endocrine organ coming from the pituitary in response to the signals from the brain. And we say with the thyroid, when the brain is happy, I'm happy.

If the brain says, has manifested by not putting out high amounts of thyroid stimulating hormone, trying to tell the thyroid to make more thyroid, it's saying, happiness is now here. We have enough thyroid. The TSH level is not going to be hot, it's going to be normal. Then we say, hey, the body has enough thyroid. That's how we treat hypothyroidism. We do not do it that way in menopause. We don't say, "The brain is happy, your FSH is in a normal range, a premenopausal range." That's not happening at all. Maybe it should.

It's not happening. We're not treating endocrine deficiency states from ovarian production, absence of producing these hormones in any way that we're treating any other endocrine deficiency state in the body. And this is not making any sense to me and we're not getting research. We don't even know how to properly dose. Everyone is sort of like a snowflake. We're

doing the best we can because we have such limited data. The conventional medical world, they don't advocate for testing levels.

Once you have a high FSH, they don't even care if you ever test it either. No one says you should treat to try to reduce the FSH the way we would try to reduce TSH with treating thyroid deficiency states. Nobody cares. And so we're all working on our own out in the wilderness trying to find the right direction to go with every single patient because there are no guidelines, there are no pathways. There is no data for so many things that we're dealing with. And it really needs to be understood by every woman that we're doing the best we can.

And some doctors are still under this unfortunate idea that came out from over 20 years ago from the Women's Health Initiative, that hormones from the ovaries, progesterone and particularly, estrogen in the form of estradiol, which is the produced estrogen from the ovary, although sometimes they don't even give that type of estrogen at all. They give from the horse urine stuff and all this is crazy stuff. But they have in their heads this unfortunate notion that hormones from the ovary, that type of hormones, estrogen, estradiol and progesterone are somehow dangerous and evil and poisonous.

It's so bizarre when you even think this. These are the life hormones that sustain the proper function and integration of every system in the body, every single system. I mean, we could go organ system by organ system. We could look at every enzyme system, every signaling agent. We can look at fatty acid signaling agents. We can look at peptide signaling agents. Every single one has a connection, 100% every single one has a connection to estrogen 100%.

And progesterone, the sidekick, also has receptors everywhere. So I don't want to minimize progesterone and you always want to give progesterone when you give estrogen whether you have a uterus or not. The progesterone wasn't created in the female body to counteract estrogen in the uterus, end of story. That's absurd. Everything in the body is

multitasking, has receptors in multiple places, including progesterone. And just in terms of the brain, progesterone is highly neuroprotective. There's amazing benefits in the brain.

It also works with the endocannabinoid system, with the immune system. I mean, it has effects everywhere as well. And it works in a beautiful synchrony with estrogen. And this is nonsense, the idea that if you don't have a uterus, you don't need progesterone, but they're not giving hormones to try to help with healthy longevity, health span. They're just giving it to suppress a few symptoms.

And as I was mentioning, many doctors still have embedded in their brains this totally wrong notion that hormones are actually evil but will put up with them for a very short period of time because women suffer without them. And they want to give the tiniest possible dose to suppress night sweats and hot flashes. It would be like saying, "I want you to eat the minimal amount of vegetables to survive. So why don't you have one bite of vegetable a week?" I mean, that's nonsense.

The idea of dosing estrogen to the optimal dose is what it should be, not the smallest possible dose to get by. When do we do that with anything? We don't do that with thyroid hormone. We dose it to be optimal, and that's what we have to do. And the first step in solving a problem, honestly, is to define it and understand the problem. And that's kind of where we are with menopause, perimenopause and these vital life hormones because we will never get the research and data that we need to really learn as a medical community. What is the optimal way of giving hormones?

How do we optimize everything in the female body after menopause and during the perimenopausal transition to prevent the onslaught of so-called age related diseases which are really deficiency state diseases? Because once you don't have enough estrogen, the gut doesn't work properly, so you have nutritional deficiencies. The mitochondria can't make energy properly without estrogen, so you have energy deficiencies. And then you have cognitive deficiencies because your brain doesn't have enough.

Ep #174: The Truth About Estrogen in Perimenopause and Beyond with Dr. Felice Gersh

You have heart deficiency, and then you don't have a properly functioning heart. I mean, everything goes down as you get more deficiency upon deficiency. But it starts with hormonal insufficiency and then ultimately total deficiency. And we're not recognizing that as a medical community. And we're not collecting data because there is no adequate research being funded.

So we're all doing the best we can because we're just trying because we have science, but we don't have clinical studies that are really relevant. Because the one giant clinical study was stupid, I mean I don't know what else, what adjective to use. It was fine in the day, if you just came up with the conclusion that don't use Prempro.

Sherry: Right. And I do want to transition to that. And I love your overview of the root cause really comes back to estrogen. It's not just for the uterus and the uterine lining, that there are receptors in our vasculature. And that if we have enough estrogen, we won't get the hypertension. We won't get the cognitive decline. We won't get the gut issues. We won't get the immunity and the suppression because we can't build the immune cells. We get leaky gut with the deficiency.

So I love how you tie it all to this master of ceremonies really in our bodies for the human, for the female, estrogen is so important. And I went through pharmacy school and I learned about the Women Health Initiative. And of course, after that, it felt like hormones were dismissed, everybody was taken off them. And there's still this taboo out there in the medical community, conventional medical community where they're just not offered to women. People don't even bring them up in discussion.

I know myself when I went to conventional medicine and I have friends that do as well. If you talk about, "Well now, I have anxiety all of a sudden or now I'm not feeling right, I'm feeling off. My energy is low or I'm experiencing these other symptoms." Let's put you on an antidepressant. That will maybe help your energy, and that will lessen your anxiety. Or they want to put you on a sleep agent if you aren't sleeping through the night.

And so they really look at it as a symptom rather than getting to the root cause and there's no discussion about hormone therapy because they think everybody learned it wasn't safe from that one trial. Just looking at that one synthetic type of compound of hormones. So can you talk about the differences between the synthetic versions that were studied in that Women's Health Initiative?

And there was a ton of trial design errors that were in that study. And then how it's different than the type of hormones that we're talking about here, bioidentical which means they act like the hormones our body produces.

Felice: Well, the first thing to know is that estrogen is not a hormone. In the human body as an adult, there are three estrogens. So it's a family of hormones. Now, the way that you can have an analogy is with B vitamins, for example. There's not a B vitamin and people know that if you have a deficiency of B12, the answer isn't give me one, which is thiamine. And if you have a study, for example, with fats. Now, fats are a family. People know there's saturated fats, polyunsaturated fats, and there's omega 3 and there's omega 6 and there's omega 9. They're all different fats.

And then there's trans-fat. That's a manufactured fat, which has been shown to be really bad. So what if you did a study with trans-fat and you found that it increased heart attack, strokes and dementia? So the solution is never have any omega 3 in your body. I mean, what? It's just totally nonsense. What does trans-fat have to do with fatty acid, omega 3? Nothing. It's a different chemical and one is good and one is bad.

And so they did a study with what the pregnant horse is trying to get rid of. So it was a pregnant horse and they took urine where the conjugated equine, meaning horse, estrogens were being removed from the horse's body. Now the word conjugated means that the estrogens from the horse and these are totally different estrogens, they're not estrogens in the human body. They're totally different compounds. They're equine estrogens. They're different estrogens.

Remember, it's a family, they have a different molecular structure. And the horse is trying to get rid of them because they're old, yucky estrogens. So it goes through the liver through a process called conjugation, which transforms the estrogens of the horse from being fat soluble to water soluble so they can go out in the urine. So that's a transformation of the estrogens. Now, these are estrogens that the horse doesn't want and mixed in the urine is a bunch of other junk, even various testosterone type products. I mean, it's not pure in any way or identical.

That's why they could never get a real generic because nobody could actually reproduce it. And it was not the same in every batch from every pregnant horse's urine, so they dried it and made it into a tablet. And that is what they gave to humans. Now, in the day, that's all they had because no one at that point had figured out how to create human bioidentical estradiol in a factory.

So essentially it is synthetic in that it's synthesized, it's made but the molecular formula of estradiol is indistinguishable in every respect from estradiol made by the ovaries. This is the human brilliance. When they did this with insulin, it changed everything for Type 1 diabetics. Prior to them being able to manufacture human identical insulin, they were giving insulin from rabbits, which the human body didn't like and would get antibodies too, and eventually didn't work and was all kinds of problems.

So we don't want to use animal products to pretend to be our hormones when we can make, through the brilliance of researchers, human identical hormones. Now, we don't have a human farm where we have prisoner females, and we're sucking their estrogen out of their blood. So that's not how we get it. They have to manufacture it, but once again it's like a clone. The body has no ability to tell the difference. It's precisely exactly the same.

Now, what they did in the Women's Health Initiative for the progesterone was they used a manufactured product that is not progesterone. The name of it was and is medroxyprogesterone acetate. Now, it sounds like progesterone because it has the word progesterone in it, but it is not

progesterone. And the differences in the molecules make it very different in how it reacts to the receptors.

So in some receptors it acts like a powerful agonist. That means like a powerful pro, it acts like progesterone only even more powerful. But in other organs it acts as an antagonist, like a blocker. That's what we call an endocrine disruptor. Let's call a spade a spade. So basically, they put in a progesterone endocrine disruptor and unfortunately it did bad things in terms of blood clotting in the heart, in the brain and in with the immune system. So it turned out that was what increased, although not hugely, but it increased the incidence of breast cancer, dementia.

And the type of estrogen used from the horse, given orally, increased the risk of blood clots fourfold, fourfold, which, by the way, transdermal through the skin, human identical estradiol has no increased risk. In fact, estradiol in the human female reduces the risk of spontaneous blood clots inappropriately made. But it will manage blood clotting so that if you need to, like you're hemorrhaging, you will have a blood clot so that you block off the bleeding artery or vein so that you won't hemorrhage to death.

So estrogen controls blood clotting, but it controls it so that you only have a blood clot when you're supposed to control uncontrolled bleeding. Not so that you just have random blood clots in your body. So that happens when you have the wrong form of estrogen like Premarin, the conjugated equine estrogen that they used in the Women's Health Initiative.

So when you have the combination of a chemical from the horse that increases blood clotting fourfold, 400%. And then you add in this endocrine disruptor for progesterone, that increases all these other bad things. Well, you don't end up with the most ideal outcome. But the outcome was totally relevant to what was tested. It would be like doing a study with trans-fat and then accusing omega 3 of all the bad things that trans-fat does in the body, it's insanity is really what it is.

The other analogy I always use is the jelly bean analogy. If you do a study with strawberry flavored jelly beans and you find that they increase cavities, diabetes and obesity. The conclusion would be, don't eat Jelly beans. The conclusion would not be, don't eat organic strawberries. Well, you call them strawberry flavored jelly beans. You use the word strawberry. No, they're not strawberries. They're jelly beans, and they're just red artificially colored.

And so do not tell people to stop eating organic strawberries. But that's what they said after the Women's Health Initiative, women should be afraid of human bioidentical hormones. The same exact hormones that their ovaries were producing to maintain their optimal health, fertility, reproductive status, everything for decades. And now you should hate those hormones and be afraid of them. This is the nuttiest thing ever. And no matter what I and many others, I'm hardly out there alone in this, but it just won't change.

This misconception about hormones is so embedded in the psyche of doctors and women that they can't seem to move beyond it. It's like the Flat Earth Society. I think we know the Earth isn't flat by now. It's like no, it is, come on. I don't know what to do anymore. That's why I love you to let me tell the world. Because people have to know that our hormones don't turn on us because we hit a random age. And I say random because, like you mentioned, this can happen over years. The menopause, the so-called normal age for menopause which is artificially defined, I mean, this is a definition made by humans.

Is 12 consecutive months without any vaginal bleeding. I mean it's 12, that's because we like 12. I mean, it could be 13, it could be 14, it could be 8, I mean, whatever. It's just a made up number. But when does that happen? In a normal healthy female it's supposed to happen, and it's considered normal between the ages of 45 and 55, that's 10 years. That's a big range. So a woman who is in full blown menopause at 45/46 is considered normal, the same as if she's 54/55.

Ep #174: The Truth About Estrogen in Perimenopause and Beyond with Dr. Felice Gersh

After age 55 it's called late menopause and I have some patients who don't go into menopause until they're 58, but they're outliers. And then up to 45 is called early menopause. And that's a really substantial number of women and that's really harmful. Before the age of 40 is called premature menopause and that's incredibly harmful to women. And unfortunately, that also does happen in some cases. So we need to know that hormones do not turn on us. They're always doing the same thing, no matter what age you give them, they don't change how they work.

I mean, it's just so bizarre, even the concept that in some women, hormones turn evil at 45, but in others it might be 58. What is that? Of course, that's absurd. They do what they're programmed to do. Every cell in our body is a different age. We don't have many cells that are the same from the day we were born. We have some myocardial cells, heart muscle cells, and some neurons, they can be the same as the day we were born. But all the other cells in our body, they're replaced, they die.

That's why we have stem cells. That's why people are always talking about, let's have better stem cells and more stem cells and let's do injections of stem cells to get things repaired and everything. Well, we have a supply of stem cells, estrogen maintains our stem cell pool and so it's really important. And so we want to have our bodies rejuvenate and maintain and everything.

So when you understand that most cells in our body are not the same cells that we were born with and they're genetically programmed to do what they're supposed to do at any age. If you give them what they need they will do what they're designed to do. So if you have a gut cell, a skin cell, they're not the same that you were born with. And then if you give them the nutrients they need and you control how they function by giving them all the right hormones, they're going to do exactly what they were genetically programmed to do whether those cells are in your body for two days or two years.

They just are genetically programmed to do what they're supposed to do. If they get what they need, they'll do their jobs. The problem is that no matter how hard we try, we can't create everything the same in someone who is 60 to match when they were 20. We don't have that ability, not yet, but we can come a whole lot closer than what we are. But if we don't have hormones, which is the information delivery system, it's like the instruction book to the cell to know what to do with the nutrients that come into the cell. And also allows you to get the proper nutrients by having a healthy gut.

But if you don't have that instruction book, if you don't have the hormones, the cells are not going to create the right proteins, enzymes. They're not going to do the right things if they don't have the hormones, it's that simple. It's like putting a bunch of teenagers in a room and telling them, "Now do it", and they don't even know what they're supposed to do. They're probably going to get into trouble. You give them a bunch of stuff and they don't know what to do. They're just going to use their imagination and get into trouble.

You can't take a bunch of cells, don't tell them what to do then expect them to come out with the right product. So we have to have these hormones at every stage of life. And just know our cells are there to do their jobs, but they can't do them if they don't have the right nutrients to build the products, the proteins, the enzymes, the kinases and so on to do the jobs they're supposed to do. And they don't know what to do if they don't have hormones directing them in every which way.

So we just have to just get over that Women's Health Initiative once and for all. Before the Women's Health Initiative came out, hormones were revered, the vast majority of women went on them. Now they did go on the wrong kind because that's what we had in the day. It was a whole different world and it turned on its head with the Women's Health Initiative. And over 20 years later, we're still in the dark ages for so many women.

And I mean, there was Dr. Sorrel, who is a gynecologist, came out years ago, probably close to 10 years ago with a paper that was published in the Journal of Obscurity because none of the premier journals would publish his article. Saying that, and at that time, it's 10 years ago, 50,000 to 100,000 women died prematurely because of the Women's Health initiative.

Sherry: Tragedy.

Felice: It is and it's not changed 10 years later, this is for most women. We just have to change the paradigm that it's not hormones that give women breast cancer. If you look at the incidence of breast cancer, it's much higher in women after menopause when they don't have hormones, colon cancer, much higher. And why do these things even happen in younger women? It's not because they have hormones. It's because of the chemicals and the toxicities that are in our world and the nutrient insufficiencies and so on.

The endocrine disruptors that are disabling our cells to do the right things, it's not because we have hormones. It's because they're being mucked around with and we know that. So hormones don't give us cancer. Hormones don't give us dementia. They don't give us heart attacks, they prevent them. It's the exact opposite. Everything's upside down. It's the wildest thing ever. But those hormones prevent disease, they maintain optimal health and they're required for us to really function.

And no matter what we do, like I said, we can't replace 21 year old ovaries in a 50 year old woman. So we do the best we can, but we can't get more data to know how to do this best because no one's collecting the data. And there's no funding for studies. It's really sad. So we're still out there, like I said, in the wilderness looking for the right path to help women to stay optimally healthy.

But I always have these little mottos and one motto is, any hormones are better than no hormones. So whatever you're getting, if it's more than zero, it's still better than zero. Now, it's not optimal, because optimal would

probably be to have 21 year old ovaries, but it's still better. So, we just do the best we can and better is better than worst. So that's where we are.

Sherry: Yeah. Thank you so much, Dr. Gersh. I love your passion for this topic. I love how much I've been educated through your work. I really appreciate your time coming on my podcast to talk about this really important concept for women so they could be more educated, so they could take it to their healthcare practitioner and advocate for their health and their wellness as they age.

And I think it's so important that we are educated on the differences between synthetic hormones of one bad study that was out there. But all the hundreds of studies that have already been done with bioidentical hormones and all the positive data out there that doesn't get discussed. And I'm really a champion for you and your message. And I know you have a huge following on Instagram and you're always supporting women's health and educating us more. And please let my listeners know how they can find you and potentially even work with you.

Felice: Well, I'm in my office. This is actually, I turned this into my video room. There's actually an exam table right over there. So I'm still an old-fashioned doctor with a brick and mortar practice where I see patients in person every single day of the week, Monday through Friday. And it's called the Integrative Medical Group of Irvine, California, listed as one of the top cities to live in the country just out in Money Magazine.

So it's a great place to come for a vacation, even if you live in another state in California. You don't actually have to see me in person legally,in other state you have to come once in a while to see me. But it's a great place like I said, to have a few days here right next to Laguna Beach and Newport Beach and Disneyland's up the street. So lots of good fun stuff to do here. And I do take care of women for every possible female problem pretty much because everything is linked to hormones.

But I do have a significant population of perimenopausal, menopausal women and women at the reproductive age group that are struggling with all kinds of fertility problems, menstrual problems of all sorts. So I do the spectrum. I never let myself totally be niche. So if you're a female, I take care of you basically. And I do try to get stuff out on Instagram and LinkedIn and Facebook.

And I have currently three books out, my *PCOS* series, *PCOS SOS*, that's my foundational book. Then *PCOS SOS Fertility Fast Track*, which is a 12 week step by step, week by week program for how to optimize fertility. And it really applies not just to women with PCOS, but they are the biggest group that has fertility problems. It's the largest cause of fertility problems in the country.

And also my more recent book is *Menopause: 50 Things You Need to Know*, which I'm very proud to say was ranked the number one menopause book by Good Housekeeping Magazine. So I hope that you will read that. These are all available on Amazon and other places. And I love seeing patients, I'm not going anywhere. I'm here in Irvine. Although I do go places, that's not totally true. I speak around the world. Now that the pandemic is over I get to travel.

I was just in Mexico City speaking at an integrative conference. And tomorrow I'm leaving for Las Vegas for the A4M conference where I'm speaking. So I love getting to meet people in person as a patient or at conferences or when I can't, through virtual, stuff like this, virtual.

Sherry: And I have to say as a patient, your office staff are so supportive and so amazing. And all of the integration you provide for many different things that I know I needed on my health journey and for being such a champion for women. I really appreciate you, Dr. Gersh, thank you for your time today.

Felice: My pleasure.

Ep #174: The Truth About Estrogen in Perimenopause and Beyond with Dr. Felice Gersh

Thanks for listening to the *Health, Habits, and Epic Living* podcast. If you are ready to take the next step to improve your health, wellness, and lifestyle goals, head over to www.epicyou.com to check out my programs and to sign up for my free newsletter. Again that's E-P-I-C-Y-O-U.com.

Please note that the information in this podcast is for educational purposes only and does not constitute medical advice.