



**Transcript: #338 PCOS and Infertility: The Impact of Environmental Toxins and Effective Solutions with Felice Gersh**

**Wendy Myers:**

Hello everyone, I'm Wendy Myers, of [MyersDetox.com](http://MyersDetox.com). Thank you so much for tuning in to the Myers Detox Podcast. We explore all types of topics related to heavy metals, chemicals, environmental toxins and their role in the underlying root cause of disease, your health issues and symptoms that you're trying to get rid of. Today we have Dr. Felice Gersh on the show. She's going to be talking about PCOS, infertility and the impact of environmental toxins on those conditions as well as effective solutions. Dr. Gersh is so brilliant. This is such a fact filled, amazing lesson about how toxins impact our stress hormones and our sex hormones. It's a very detailed analysis of the whole cycle of hormone production and where toxins interfere in that, every step of the way.

**Wendy Myers:**

On this show we will talk about the number 1 cause of infertility and why it's on the rise, also why sperm counts used to be 60 million but now they're routinely 20 million. It's not just women but also men that are having issues with fertility. We talk about causes of infertility like toxins, poor sleep, stress and more toxins like endocrine disrupting chemicals. We talk about PCOS; what that is exactly, what's going on, how are the hormones misfiring and what's wreaking havoc on our hormonal system when one has PCOS. Dr. Gersh outlines that in detail, it's really fascinating. We'll talk about how to reverse PCOS and what she does with her patients. We will also talk about the exact mechanism behind low estrogen which causes insulin resistance, cravings, and weight gain. We see this when women are venturing into perimenopause and into menopause. We'll discuss why they are gaining weight, the whole mechanism behind that and what you can do to reverse that. It's a really interesting show today. Hold onto your hats, we're getting a really deep lesson today.

**Wendy Myers:**

If you guys are listening to this show, I know that you are interested in your heavy metal load on your body, the toxic load that your body is carrying and

what to do about that. I created a quiz called [heavymetalsquiz.com](http://heavymetalsquiz.com). Go there and take it. After you are done with the quiz, you get the results that show your relative levels of toxins based on a lot of different lifestyle factors from your answers in the quiz. After that, you get a free video series that tells you where to start. Where do you start on your detox journey? How do you detox? The number 1 mistakes people make and how to do heavy metals testing. There's lots of really great information, so that you can start on your detox journey correctly. When you remove these toxins you'll enjoy the benefits of that by reversing health issues, uncomfortable symptoms like reproductive issues, weight gain, et cetera. The things we talk about on this podcast today. Go to [heavymetalsquiz.com](http://heavymetalsquiz.com) and take it.

**Wendy Myers:** Our guest today, Dr. Felice Gersh, is an award winning OB-GYN specializing in all aspects of women's health. She is the founder and director of the Integrative Medical Group of Irvine in Irvine, California, which is very close to me. Her practice provides comprehensive healthcare for women, combining the best evidence-based therapies from conventional, naturopathic, and holistic medicine. She has been recognized as a physician of excellence in Orange County for the past 15 years. She taught obstetrics and gynecology at Keck USC School of Medicine (that's my alma mater) for many years as an assistant clinical professor, where she received the Outstanding Volunteer Clinical Faculty Award. Dr. Gersh is also a prolific writer and world-renowned lecturer. She travels all over the world and has been featured in several films and documentary series, including *The Real Skinny On Fat* with Montel Williams and *Fasting*. She's the mother of 4 children and lives with her husband Bob in Orange County, California. Dr. Gersh is the author of *PCOS SOS: A Gynecologist's Lifeline To Naturally Restore Your Rhythms, Hormones and Happiness*. She's also been featured in the *Huffington Post*, *Women's Health*, *Glamour*, *Well+Good*, *The Washington Post*, *Buzzfeed*, *Health*, *Good Housekeeping*, and more. You can learn more about Dr. Gersh at [integrativeMGI.com](http://integrativeMGI.com).

**Wendy Myers:** Felice, thank you so much for coming on the show.

**Felice Gersh:** It's my pleasure. I'm so glad to join you here today. It's such an important topic.

**Wendy Myers:** Yes, I've been wanting to talk to you for a while because infertility is a huge problem plaguing so many women today. Why don't you tell us a little bit about yourself, and how you came to specialize in fertility and health issues that underlie fertility?

**Felice Gersh:** Well, like so many people in medicine, we're heavily impacted by either a family member or sometimes ourselves. In my case it was myself. I knew something was wrong with me but I wasn't getting any help. I went for 2 years without having a menstrual period, not a single one. I went to a very high-up, respected family member in the OB-GYN department at my medical school where I was studying, and I said, "Dr. so-and-so, something is really wrong. I haven't had a period in 2 years." His response was, "Women hate periods. Why do you care? I mean, you're not trying to get pregnant now. Just go on birth control pills. It

doesn't matter." I said, "But I would love to have children pretty soon." He said, "Well, we'll deal with it then. You can go on fertility drugs." That just seemed to be a very poor answer to my problem.

**Wendy Myers:** Yeah.

**Felice Gersh:** It's like, what is this all about? He was right though, when I wanted to get pregnant I did have to go on fertility drugs and it took me quite a few months. It really made me do a deep dive into what was wrong with me, and that led into my really intense emotional passion for understanding fertility and what can be done to improve it. I really came away with, and this is after decades because I was never taught this, even though now in hindsight it seems blatantly obvious; like the biggest duh on the planet, that fertility and of course the menstrual cycle in a reproductive age woman is a true vital sign of her health. Whether we like it or not we have to remember that humans are the only species on this planet, the only ones, that try to control their reproductive destiny. I mean, if you put rabbits together, you get little baby rabbits. That's the way nature intended it, whether we like it or not. Fertility is the prime directive of life.

**Felice Gersh:** Everything in the female body is designed for reproductive success. Having metabolic health is really the key to having reproductive health. This has really been lost. It's just so sad that OB-GYNs are not taught today that reproduction is not just an added on thing, that you could take or leave. The analogy I give is that you go to buy a sport's car because you're having a midlife crisis, or whatever. You go and then at the end you make the deal, and they say, "But I forgot to tell you. There is a sporty package, and look at these sporty hubcaps." You can get them, they're \$3,000. If you want them, your hubcaps will look fantastic but they don't affect the drive, the longevity of the car or the function of the car, but they look great. That's how we treat reproduction. It's take it or leave it, but reproduction is the engine. It's not the hubcaps, you're not trading in something that you could take or leave. This is foundational to the function of a reproductive age female. Everything about reproduction links to everything about overall health.

**Felice Gersh:** I realized that. It took me a long time to make that connection because we were never taught it. It became apparent that reproductive problems are really a sign, a big red flag. When you have reproductive problems, you have health problems. You really have to hone in on what's going on in that woman that's affecting her fertility, because it's affecting her overall health. It's all intertwined. That's where I specialize in all fertility but with a little extra focus on polycystic ovary syndrome, PCOS. That is like the perfect poster child for how fertility and overall health, metabolic health, link in one woman. That's why I'm so excited to share all of this with your listeners and viewers, because it is so important. That's why I say, even if you're not trying to get pregnant, you want to be fertile. Obviously if you are, it's even that much more important. Fertility is life itself.

**Wendy Myers:** Yes, it takes time to fix these issues. It takes time to remove the roadblocks to healthy levels of sex hormones, stress hormones and thyroid hormones, which

all work together. It's not like, hey, now I want to get pregnant at 37, now it's time to start thinking about this.

**Felice Gersh:** I know, and that's why it breaks my heart. People are trying to conceive and then they're unsuccessful and they run to the fertility center, where they usually jump pretty quickly into assisted reproductive technology, IVF. They don't try to even evaluate what is wrong. Whether this woman is nutrient deficient, she has metabolic dysfunction or she has insulin resistance that's even subtle. I mean, not even full-blown diabetes. They just go right into doing IVF because the women want to get pregnant right away, so they're pushing for it as well. I say unless you're in your 40s, and even then, you may want to back up for a couple of months. You want to be healthy, even if you want to do or think you have to do, IVF. First of all, many times you don't need that IVF. You actually will spontaneously get pregnant as you get healthier. Secondly, even if you do end up with IVF, you're more likely to be successful and lower your complication risk during pregnancy. You also lower your risk of having a problem with your baby, because we know that babies' genetic expression, what we call epigenetic modification, is impacted by maternal health. Everything is linked to everything.

**Felice Gersh:** The health of the mother affects the health of her developing baby. You want a healthy mom to get pregnant. A woman should be healthy preferably long before she gets pregnant, and that will dramatically improve the possibilities of her child having a healthy life. We have to go back and rethink so many things that we're doing in our medical society, in terms of how we're trying to help women. Sometimes we need to back up and say, "Please, work on getting healthy before you do any reproductive technology."

**Wendy Myers:** Yes, absolutely. Let's go to the root cause of the problem. Let's talk about some statistics, actually. What are some statistics for women and men experiencing infertility? It's on the rise.

**Felice Gersh:** It sure is. Out of 100 couples, at the end of 6 months, about 80% (I think these numbers are really old because nothing is ever kept up) but about 80% may get pregnant. Now, not all of them are going to succeed, so that's including miscarriages. That's a big problem. At the end of a year, it can be down another 5%, and after 2 years, at least this is the statistics that they publish, about 90% of couples will get pregnant. That doesn't mean they end up with a baby, you have to realize, but 90% of couples will have a pregnancy by the end of 2 years. The reality is, who is keeping exact data on this?

**Felice Gersh:** When I was doing obstetrics I delivered thousands of babies. When a patient had a miscarriage, sometimes they didn't even come into my office. They may have been on vacation and they miscarried. I didn't go into any record keeping. Nobody reported it anywhere. The other thing is, when I had patients who didn't get pregnant, I wasn't sending it to some national registry. I mean, this data is always going to be inexact. I personally think that the numbers are higher than those I just quoted.

**Wendy Myers:** Why is female and male infertility increasing worldwide? What's going on?

**Felice Gersh:** It is shocking. If you look at male sperm counts, way back when I was in medical school, training, we were taught like 60 million, that's the number. A man should have at least 60 million. Then, maybe a decade or so later, it dropped down to 40 million. Now they're down to 20 million. What's become the new norm is the new abnormal. Sperm counts are plummeting. In terms of males and sperm counts, a lot of that is environmental toxicities. A lot of research has been done on phthalates, which are plasticizers. They're what make plastic flexible and soft. They're also in some scents. Ages ago when people wanted to smell something very pleasant they used plants, right? They used essential oils from plants, they learned how to distill plants and they could use the waters from the plants, and the oils from the plants. They were all natural, organic of course, because they didn't have pesticides or herbicides. It was all natural plant-based scents.

**Felice Gersh:** Back just a few decades ago, in the history of mankind it's not even a blink, it's a tiny spec of a blink, we have developed these artificial chemical scents. These things smell like something else, and it's crazy. You have a chemical that kind of smells like lavender and they call it lavender. It's not lavender, it's not from the beautiful flower lavender, it's from some chemical factory. It has nothing to do with lavender. They do this for all kinds of scents, and then they put them in perfumes, colognes, hair conditioners, shampoos and all of these things. They're all phthalates, and it's really impactful on males.

**Felice Gersh:** In terms of females, there's a lot of problems as well, with endocrine disruptors. In terms of polycystic ovary syndrome, the most research has been with BPA or bisphenol A, which is ubiquitous meaning it's everywhere. Everybody has it in them. We used to think it was eliminated rapidly, now we're not so sure. It may actually stay in the body a lot longer than what we used to think. It interferes with every aspect because it's an endocrine disruptor, which is phthalate. It means that it can interfere at any step of a hormone. It can interfere with the production, the distribution, the receptor function, the elimination and the degradation. Anything that has to do with a hormone, an endocrine disruptor can interfere with.

**Felice Gersh:** All our reproductive functions, in fact all our metabolic functions because they're linked, rely on hormones. Not just having hormones, but having hormones at the right time and in the right place because we are beautifully rhythmic creatures. This is another reason why we have infertility problems. It turns out that the ovaries have receptors for melatonin, and melatonin is only produced at night when we're sleeping. That is very circadian, very built into the 24 hour day, the 24 hour rotation of Earth. Our genes have really evolved to be in accordance with our beautiful relationship with Earth, the moon, and the sun. 33% of all our genes in our body are clock genes, and about 90% are clock gene-related in some way, which means we're all timed.

**Felice Gersh:** We're timed creatures, if we don't sleep at the right time, if we don't get enough sleep, if we have high levels of stress, stress will up our cortisol production and that will suppress our melatonin production. If we don't get enough sunlight, if we never see the sunset, the sunset helps us to trigger the production of melatonin. If we sleep in a room that has too much ambient light. I sleep with a sleep mask so I can make it really dark, but many times people don't sleep with a sleep mask, they have cracks in the window and these lights outside from light posts or other people's homes give off this ambient kind of light. Moonlight, by the way, doesn't have this effect. Isn't that amazing? If you're sleeping outside under moonlight, the particular colors of the light from the moon doesn't suppress our melatonin. It's amazing. It's our artificially created light that has this effect. That's why I say use red lights if you have to have a light at night, and make it a motion sensor. So your night light is a red light, which doesn't suppress the melatonin as much.

**Felice Gersh:** Lack of adequate melatonin with the ovaries, with the beautiful rhythms of our bodies, is also impacting fertility. Sometimes just getting women to eat at the right time, is the other thing. We're eating at the wrong times and that creates another whole set of metabolic dysfunction. Then not sleeping enough or sleeping at the wrong time, and then when we have our guts, our microbiome in our guts are all messed up. It's so complex because when you have the wrong microbes living in the gut and you have impaired barrier function, which is now epidemic and also caused by endocrine disruptors and other toxic chemicals. They're also ubiquitous in our food. What are we eating? These chemicals are killing our good microbes, and it's not just glyphosate, it's the other inert ingredients that are in the Roundup and similar, and the pesticides that they put on our foods, and then we eat them. The other emulsifiers, artificial sweeteners and artificial flavors. Remember I mentioned artificial scents, well we have artificial flavors too. Who thought it was a good idea to put chemicals in our food to make it taste like it was charbroiled?

**Felice Gersh:** It's so crazy, it's hard to even fathom how this could even be allowed. These chemicals destroy our gut microbes, and then we have impaired gut barrier function and the other microbes take their place, which can actually be toxic. They can produce what are called endotoxins that can actually leak into our body, creating a chronic state of inflammation. When you have chronic inflammation you can actually create inflammation in the ovaries of women and in the testicles of men, and inflammation drives down testosterone production, impairs ovulation, and also impairs egg quality. Then even when you ovulate, the egg itself has been damaged by this chronic state of inflammation. You can see why infertility is just skyrocketing with crazy diets, chemicals, circadian rhythm dysfunction, sleep problems and chronic stress. I know it sounds overwhelming, and it can be overwhelming. That's why you have to formulate a step by step program, to try to deal with the reality that we all live with.

**Wendy Myers:** Yes, our stress as well. Stress plays a huge role.

**Felice Gersh:** Oh my god.

**Wendy Myers:** Suppressing egg release in women.

**Felice Gersh:** Absolutely.

**Wendy Myers:** That's why a lot of women get pregnant on vacation. If you're stressed out and there's all these stressors we're not aware of, like all the EMF from our computers, and Wi-Fi, and it's getting worse with 5G, it's just going to really be jack-hammering our bodies. This stressor will prevent egg release. Can you talk about that?

**Felice Gersh:** Stress will impair the whole axis that involves the hypothalamus, and the gonad, in this case we'll talk about the ovaries, the pituitary gland, and the adrenal. That's that whole axis, the hypothalamic-adrenal-pituitary-gonadal axis. This is beautifully interwoven, and nature doesn't want to have unhealthy people having babies. It is sort of counterproductive. If that person is not adequately nutritionalized, they're not going to be able to nurture that baby because they're fighting off some invaders because they're so stressed. There's only one stress response in the body, and it really was originally evolved to deal with famine. So, the biggest threat to survival, if you go way back thousands and thousands of years ago, really was famine. When you have a stress response, it's the same whether it's because you are having problems with your mother-in-law, your boss, you have a dog that wakes you up all night because it has bladder problems or whatever it is. I've seen it all. You have all this stress in your life, you don't like that your political candidate isn't getting elected. There are so many things that are stressing everybody out. When you have that stress it's the same response as if you don't have food. The famine, it's the same response.

**Felice Gersh:** What happens is your body is going to start making a lot of cortisol. Now, why on earth would your body make a lot of cortisol? Because cortisol makes you insulin resistant. That way the sugar is going to build up in the blood. Why would that be a good thing? It's because it's going to feed the brain and the muscles, because if you're going into a famine it prioritizes, you want your brain to get the glucose first. The brain does not rely as much on insulin to the same degree, as say your stomach or your liver do, so you're going to get more insulin resistant. What else does insulin do? Insulin is going to increase your ability to maintain your fat. You're going to actually slow your breakdown of your fat. We want to store fat, it's all about survival.

**Felice Gersh:** When you have high cortisol, acutely, it makes you more alert and it somewhat suppresses inflammation. If you're fighting, if you're running, you're not going to feel pain. That's why they do cortisol injections. Long-term it's very bad because it actually causes breakdown of tissue, but short-term cortisol will reduce the pain response, reduce the inflammatory response, increase insulin resistance and make you hold onto your fat more. It will store your fat because you need

that fat, because you never know how long this famine may last, because that's what it's all about. It's going to make you sleep a little bit less. It's going to give you more energy to stay awake more because you may have to forge longer for food and have more energy for that. It's all about survival. It was never meant to be long-term and chronic.

**Felice Gersh:**

Now, when you take this life-saving acute response and turn it into a long-term chronic response, it turns everything on its head. Now you're going to be chronically insulin resistant, you're going to hold on to your fat, you can't lose weight, you can't sleep, you don't make melatonin and you're going to get diabetes. In the short-term it's sort of anti-inflammation, but in the long haul it causes catabolism, tissue breakdown. Your body starts to break down, and you start losing your lean body mass because that's what would happen long-term if you were in a long-term famine. Eventually you have to start breaking down your bone and your muscles. That's going to start happening to you. You've probably seen people like this and you've wondered, "How did they get that body shape, it's so strange?" They'll have skinny arms and legs and big fat middles, they're like a big circle with little sticks coming out for arms and legs.

**Felice Gersh:**

They have all this visceral fat, all this belly fat because they have really high cortisol. Their body is breaking down their peripheral muscles and their extremities and their bones. They'll have osteoporosis, they'll have diabetes, cardiovascular disease and they always have gut problems because when you have chronic high cortisol from stress, you're going to get leaky gut. You're going to change the microbes of your gut because it was not designed for this long-term process. Then you're going to have chronic inflammation. Now, chronic inflammation breeds even more trouble because that will cause even more insulin resistance. Now you're going to really be in full-blown diabetes, and when you're in full-blown diabetes that is heavily linked to heart attacks, strokes and vascular problems. You can see how chronic stress can change everything.

**Felice Gersh:**

There was an amazing study that was done a couple of years ago, in England, and they took people who had single coronary artery vessel stenosis. It was very severe stenosis, but it was just one single vessel. They actually got the study subjects to agree that they would have a procedure, an angiogram. Half of them would have a balloon angioplasty, where you put a balloon in that vessel, that stenosis that's stenotic and you blow it up. They don't do that long-term anymore because sometimes over the course of a year, or 2 years, or 3 years, the vessel will constrict back. Now they put in stents, but a balloon angioplasty will last for many months, maybe even years. They just did the balloon angioplasty in half and the other half they did everything but they never blew up the balloon. They call it a placebo. It wasn't a sham procedure, it was a placebo procedure, and everyone knew that after it was all over they would go back and they'd actually redo it and put in the stent. They agreed to this. They all felt very important and that they mattered because they were doing this very important study to compare the difference between the placebo surgery and the real surgery, which included the angioplasty with the balloon angioplasty.



**Felice Gersh:** What they found at the end of the study is that both groups had improved blood flow to their heart. The difference between the 2 groups was not statistically significant. Isn't that amazing? What they labeled it, they called it the "love effect". Then the research is actually labeled the "love effect". The people in the study felt so attended to, so important and so loved. They had phone calls every couple of days to check on them. "How are you doing"? They'd never gotten so much attention. They felt so important that just feeling loved can improve blood flow to the heart. What does that tell you about the effect of stress, or on the other hand, the effect of dealing with stress, of incorporating the "love effect", of having people feel calm and happy, and optimistic about their future, and feeling appreciated? We should never underestimate the effect of calming that stress response, because that's really what was happening. They were taking that stress response in those people and they were just calming it down. Their heart had increased blood flow because it reduced constriction of the vessels, it reduced inflammation in the vessels, and that, if we think about that, that can affect and improve fertility.

**Felice Gersh:** They talked about how when people go on vacation, couples, they get pregnant on vacation. That is not a wife's tale, that is actually a truth. If you lower stress in a fertility troubled couple, an infertility couple, and you give them hope, you give them love, you reduce their stress and their chances of conceiving are significantly increased. They'll improve blood flow to the testes and to the ovaries. They'll lower inflammation and help heal their gut. This is not fluff. This is not voodoo or anything. This is real science. Stress is huge. Stress allows our immune system to function optimally when it's reduced. A stress reduction program is dramatically beneficial.

**Wendy Myers:** Let's talk about PCOS. This is on the rise, so let's talk about that. What is that exactly and what contributes, what toxins contribute to this condition?

**Felice Gersh:** Probably any endocrine disruptor can contribute if it interferes with estrogen. As I mentioned, bisphenol A is just the one that's had by far the most research. So what's going on in women with PCOS? Well, the name PCOS, polycystic ovary syndrome, comes from the fact that in the vast majority of women with this condition, if their ovaries are looked at with ultrasound, they have a little rim of tiny cysts all around the rim of the ovary, they call it a ring of pearls. They are follicles that have been in the process of developing that never actually got to the full stage of development, where they would ovulate. Every month in the menstrual cycle there is a hormone that has a very weird name, called anti-Müllerian hormone. This name does not sound like any sort of thing that has to do with the ovary. That is because during the embryologic times, that particular hormone had an effect on causing regression of certain structures in the embryo. I wish they would change the name to follicle recruiting hormone because that's what it's doing in the ovary. It's so confusing when you hear the name Anti-Müllerian hormone, because that doesn't sound like it means anything related to what it is doing.

**Felice Gersh:** Forget that name. Think of it as follicle recruiting hormone. Every month after the menstrual cycle, the period has happened and you're starting a new cycle fresh. You need to start recruiting the little follicles. A miracle happens in the midst of the cycle when 1, occasionally 2 (that's one way of getting twins) special follicles, I call it the special chosen one and we don't know how that special one is chosen. Among all the little recruited follicles that one is chosen to proceed to ovulate and that's the egg, that can turn into the baby. With women with PCOS there is a problem. The mechanism to shut down the recruitment, to lower anti-Müllerian hormone and shut down that recruitment of the follicles, doesn't happen properly. What the mechanism of that is, is an increase in the hormone that comes from the pituitary gland called FSH, follicle stimulating hormone. That's going to stimulate a follicle to develop and then ovulate when you get a spike of LH and estrogen, but you first need to have that FSH spiking. That's not happening properly in women with PCOS. What happens when you have the spiking of the FSH, the rising of the FSH. FSH controls a hormone, rather an enzyme, called aromatase.

**Felice Gersh:** This enzyme, aromatase, converts testosterone into estradiol because you need to have that spike of estrogen that triggers the ovulation. What's happening in women with PCOS is that they don't have proper functioning of the enzyme aromatase. They don't get the proper elevation of FSH, so they never get that spike of estrogen. The estradiol spike never happens, so they don't ovulate. The trigger to shut down anti-Müllerian hormone doesn't happen. Anti-Müllerian hormone stays high and it keeps recruiting more follicles, so it keeps making more follicles. It's sort of like the joke in the old *Lucille Ball* show, where they kept having candies coming down the conveyor belt and nothing would stop them. That's sort of what's happening. Women with PCOS keep recruiting more follicles and more follicles. None of them are turned into the special one to ovulate, because you don't have the proper aromatase and FSH. You just keep accumulating follicles but they don't ovulate. You get this crazy looking ovary with all these follicles lining up, and if you measure you find high levels of this hormone, anti-Müllerian hormone. If we look at that, that's where the name and the sort of structure of the ovary came from, and that's what's happening. They're not ovulating.

**Felice Gersh:** Why is this happening? It seems that it has to do with endocrine disruptors. The estrogen receptors are not functioning properly. This has been shown, there's now been data and studies have been shown that the estrogen receptors are malfunctioning. You're not getting the proper feedback system because you need to have the feedback system in the hypothalamus, with the hormones, to trigger the proper production of FSH. You also probably have some interrupters in the FSH itself, so it's really complex. Also, they're finding melatonin receptors may not be properly functioning, and melatonin is critical as an antioxidant and also as a hormone that's involved in ovulation. There's a lot of things that we're just really getting to the tip of the iceberg, I should say the surface of understanding. We only know the tip of the iceberg of what's really going on in women with PCOS. We know there are definite endocrine disruptors affecting

hormone function, and the most research has been on estrogen, but there also seems to be problems with FSH, melatonin and probably others as well. You're not going to get the proper feedback and you're not getting ovulation.

**Felice Gersh:**

What happens when you make estrogen is, it all comes from testosterone. So, you have no problem in women with PCOS in making testosterone, the precursor of estradiol. The hormone that triggers the production of testosterone is luteinizing hormone, LH is what it's called, and that comes from the pituitary gland. The brain says, "I need more estrogen," because it knows there's not enough estrogen being produced. The ovary is not making enough estrogen. PCOS is a condition of estrogen deficiency. A lot of people think somehow the ovaries are making too much but it is making too little. You have estrogen deficiency and the brain says, "I want more." It's triggering the production of more and more LH, luteinizing hormone. The ovary can respond perfectly to LH, so it's making more and more testosterone, and that's why women with PCOS tend to have very high levels of testosterone. The testosterone doesn't properly get converted into estradiol. They have high testosterone and then they have a block in the assembly line, it's not going down, it's backing up with testosterone and not enough estradiol.

**Felice Gersh:**

That creates massive problems for women who have PCOS because you have too much testosterone. Too much testosterone is going to cause facial hair, hirsutism in a lot of them, androgenic alopecia, just like male pattern baldness in women, chronic cystic acne that's recalcitrant, it doesn't respond well to any type of treatment. It even gets more complex because this whole situation of having improper hormones causes gut problems. This has been proven. They have a dysbiotic gut microbiome. That means they have the wrong microbes living in their gut. When you have the wrong microbes living in your gut, you get impaired gut barrier function and you get the endotoxins that we talked about. We now know that women with PCOS are producing more toxins from their gut.

**Felice Gersh:**

The immune system requires proper estrogen to function properly. It's been shown as well, that the immune system of women with PCOS will trigger inflammatory cytokine production, that's these inflammatory little particles that go around the body and create havoc when it's chronic. They even go into the brain and create brain or neuroinflammation. Women with PCOS have a lower threshold to the stimulation of the production of inflammatory cytokines by their immune cells, which line the gut. 70% of the immune system lines the intestinal tract.

**Felice Gersh:**

You have this chronic outpouring or leaking at the very least, of endotoxins. The immune system is being upregulated and producing all of these inflammatory cytokines which circulate throughout the body creating systemic inflammation. Systemic inflammation causes insulin resistance, so women with PCOS have high rates of insulin resistance. By age 40, women with PCOS have 4 times the incidence of diabetes as non PCOS women. When you start having more and more inflammation, you start having more breakdown. Blood vessels are not working properly, you have lower production of a gas called nitric oxide which

keeps arteries healthy and brains healthy. That's why PCOS, as I said, is the poster child of showing how metabolic dysfunction and reproductive dysfunction are intertwined so intimately and how the body is one. When you have this impairment of the reproductive functions, you have impairment of virtually every metabolic function because it's all completely linked. Hormones are, especially estrogen, like the binder that binds the reproductive and the metabolic together. When you don't have proper estrogen receptor function anywhere in the body, on the immune cells, in the gut, in the ovaries, in the brain and all these places, you have this terrible problem with reproduction. You also have these terrible problems with metabolic health.

**Felice Gersh:** PCOS is the number one cause of infertility now, it's a massive epidemic worldwide, because we have endocrine disruptors everywhere. Our Standard American Diet is really a big contributor for causing gut problems. It's all intertwined. These are a multitude of problems. When you have this chronic state of inflammation, you have the systems of the body breaking down and you have an increase in neuroinflammation. Women with PCOS have higher rates of anxiety and depression. When they do get pregnant, they tend to have very high rates of pregnancy related complications like gestational diabetes, preeclampsia, pregnancy induced hypertension, preterm labor, oversized babies, what we call macrosomic babies and growth restricted babies, as well, because of poor placental function. It's a very complex condition, but it really just hones in on this incredible link between reproduction and metabolic functions.

**Wendy Myers:** Is there hope for PCOS?

**Felice Gersh:** Oh yes.

**Wendy Myers:** How do you recommend that people go about reversing and improving this condition?

**Felice Gersh:** We now know that estrogen is the master of just about everything. I call it the master of metabolic homeostasis. It's also the master of the master clock in the brain, that sits on top of the optic nerve which can sense light and dark. It sends its signals directly to the master clock. The master clock is like the conductor of the orchestra of the body, of all the organs. Women with PCOS essentially live a life of jet lag. It's like you're just jumping across time zones. There's been so much data now, about people who have social jet lag; in other words they stay up really late at night and they eat in the middle of the night. They're living like they're in another time zone, but it's varying from day to day, or they're literally crossing time zones all the time and their bodies don't know what time it is anymore. They have very high rates of infertility, depression, anxiety, cancers, diabetes and obesity. Women with PCOS essentially are living a life of jet lag.

**Felice Gersh:** What can we do? Well, we have these backdoor ways of getting things back on track with timing, and that is "time restricted eating". If you eat at the same time every day and you focus on early in the day, it turns out that our bodies were designed evolutionarily to do our best eating in the first part of the day.

Our bodies are more insulin sensitive. I said women with PCOS are insulin resistant or more prone to diabetes. Well, if you eat in the first half of the day, your body even then, even with PCOS, is more sensitive to sugar. It gets it out of the bloodstream, the insulin works better. It pulls that sugar out of the bloodstream into the cells where it's needed to create energy, and the insulin levels don't rise so much. High insulin is very inflammatory and it promotes fat storage and fat production. 80% of women with PCOS have serious weight problems. That's because they have high insulin all the time, but you can control that.

**Felice Gersh:**

They had a study in Israel of women with PCOS, where they had them eat 2/3 of their calories for breakfast, 1/3 for lunch and a bite for dinner. They almost didn't have any dinner. In one month, their insulin and testosterone levels fell by 50%, and 17-hydroxyprogesterone, which is a precursor to cortisol, fell by almost 40%. That means the cortisol levels are dropping, stress is dropping, they're more insulin sensitive and their testosterone is coming down. It turns out that insulin also drives the production of testosterone, so nothing is simple, right? You can get rid of that extra stimulus to produce testosterone by getting that insulin level down. You want to eat most of your calories for breakfast, then have a small late lunch and if you have to eat dinner, try to make it just a little bit of fat, like a little piece of avocado, or some macadamia nuts, or some olives and then a big mug of herbal tea or green tea, which is great with those, catechin is a great antioxidant.

**Felice Gersh:**

If you really can't do that, then have a big breakfast, have a very minimal lunch like just exactly what I said to have for dinner, a little bit of olives or a few fatty nuts like pecans or macadamias, a little bit of avocado. I use what's called the "Fast Bar" that was made by the company that created the Fasting Mimicking Diet, which I use a lot. That's a bar that's basically not going to have much impact, very nominal impact on your blood sugar and insulin because you want to keep that down. Remember, you've got to keep that insulin and blood sugar at a normal low level. Then have an early moderate dinner, that way it's more social. Try not to eat after 7:00pm, ever, and the other thing is you need a fast 13 hours or more. 13 hours is like the sweet spot from dinner to breakfast. Not dinner until lunch because a lot of people are fasting through the first half of the day thinking, "This is great." They don't know that it is really bad. It's especially bad for women with PCOS. It's bad for everyone, but especially for women with PCOS, because they are insulin resistant. They really need to put their food into the window when they're most insulin sensitive, which is the early part of the day. That's going to be dramatic for them.

**Felice Gersh:**

The other thing is to work on sleep, because women with PCOS often have sleep problems. I recommend sleep masks and I use melatonin. I tell them to watch the sunset. The colors of the sunset, the oranges, yellows and reds, actually drop the cortisol and trigger an increase in melatonin production. Just do that and then exercise at the right time of day. If you want to lose weight, you're best off exercising in the early part of the day and if you exercise on a fast, in the morning, if you can exercise first thing in the morning while you're still fasting

and then eat breakfast after that, that is most productive for weight loss. That would be optimal.

**Felice Gersh:** Definitely work on stress. Stress is just pervasive among women with PCOS. There are so many things we can do to help with skin. I do these wonderful acne peels, they are just dramatic for helping. Then healing the gut, because acne of course is a manifestation of inside inflammation. By eating a plant-based diet, I recommend going vegan for about six months, not for life, and then adding in like 3 ounces of animal protein a day. A very nominal amount of animal protein. Try for 6 months to eat like 9 cups of vegetables a day. All the colors of the rainbow, and then a couple of fruits. It's okay to eat whole grains, nuts and seeds. They just can't be processed. They should all be organic. If you eat most of your food in the morning when you're so insulin sensitive, it's actually fantastic. The worst thing about a lot of people who are overweight is that they starve themselves. They're actually severely nutrient deficient. They're really malnourished. You could be very overweight and be very malnourished, and you can't run the fat burning machinery of your body.

**Felice Gersh:** You can't run any of the machinery in your body if you are nutrient-depleted. You have to have B12, riboflavin, zinc and magnesium or you can't burn fat. You have to have these nutrients. I tell patients to never think about weight. That will come off. Think about health because we've got to feed you so that you can be nutritionally healthy. By feeding you in the morning you will lose weight. I have patients that have lost 60 pounds over the course of a year. Now, I'm not talking about starvation because you're actually eating plenty of food. It's not just what you eat, it's when you eat, too. It's all whole foods, all natural foods. No chemicals, no processed foods, lots and lots of vegetables and tremendous amounts of fiber, because fiber is the food of your little microbes.

**Felice Gersh:** We have starved them and poisoned them. We've tortured those poor little critters and now we must nurture them. So, a high fiber diet. There's so much data on resistant starch. That resistant starch actually improves our ability to detoxify xenoestrogen, so xenobiotics. All these chemicals in our body are better metabolized and eliminated when you have all of this fiber, this resistant starch, like cold potatoes. Poor potatoes. I have to defend the defenseless, old organic potatoes, they are a resistant starch. They won't turn into sugar. It's pure food for your little microbial population, in there.

**Felice Gersh:** You also have to stop eating at night. It's so important to stop. If you eat at night you're going to increase the dysfunction of your endocannabinoid system. That's for another day, because the endocannabinoid system is dysregulated in people with metabolic syndrome, which is so prevalent in women with PCOS. You've got to get your endocannabinoid system on track. By the way, if you're smoking marijuana, please stop. That is not a fertility drug, trust me. That's a lecture for another day. By timed eating, by having a whole foods diet with lots of plants because plants are not just fiber but they have a lot of amazing polyphenols. They're like these magical ingredients like quercetin, resveratrol and lutein. They're amazing and they actually do dances with the microbes. There are

polyphenols that actually dance with microbes and make the microbes healthier. They actually get to our body and circulate and work on our own receptors. You have to eat lots of plants, all the colors of the rainbow, lots of fiber, whole grains, just don't eat moldy grains of course, but eat organic whole grains. You try to push as much of your food into the morning. Stop snacking, do not snack. I repeat, do not snack, because you've got to have times when you're not eating. It's not just about the calories, it's about setting the clocks in your liver.

**Felice Gersh:**

The liver doesn't know if it's day or night. You can set the clock to the liver, the metabolic powerhouse of the body, by timed eating. That means you have to stop snacking. You should never eat more than 3 times a day. You can even, as you get advanced, go to 2 times a day, but with most of the food in the morning. It's not nutrient deprivation, this is nutrient redistribution. You're not starving at all. In fact, when you eat a really big breakfast and you do this for about 6 weeks, you are going to have a complete downregulation of your appetite. It's amazing that you will not have that, "I'm famished, I'll die if I don't eat now," feeling. That will go away and you'll start revving up your ability to burn fat. A lot of people can't transition well from burning glucose to burning fat and creating the ketones that they need. This will really help. It takes time.

**Felice Gersh:**

Everyone in the US thinks that there's a quick fix for everything, but this does take time. There's a lot of supplements that we talk about, myo-inositol is a wonderful supplement, quercetin, N-acetylcysteine. Almost everyone with PCOS is deficient in vitamin D, I think we're all deficient in vitamin D because none of us get enough sunlight. There's something wrong with us, we don't convert it. By the way, in someone who has a chronic low grade infection they don't even utilize vitamin D properly. I mean, it's so complex what we've created in our world of barrier dysfunction, chronic infections and so on. Most people need some additional vitamin D and magnesium. My favorite mineral, I love them all, but it is magnesium. It works on over 700 reactions in the body. If you don't have enough magnesium you can't make serotonin, your dopamine receptors don't work properly, you don't transport glucose properly, your electrical transmissions are off. You're going to have palpitations, tachycardia, and you won't be able to sleep well. It's so amazing, all the things that magnesium does. Most women with PCOS are deficient in magnesium, as is almost everyone.

**Felice Gersh:**

There is so much we can do for women with PCOS, and it's not a death sentence, it's not a sterility problem, it's an infertility problem. I almost can't even think of anyone who was not able to get pregnant with PCOS after I've worked with them. Sometimes, like I said, it could take a year. This is not a quick fix, but they get pregnant. Most of them will start having normal regular cycles, which is such a sign of health reestablished. When you start having regular cycles, egg quality improves. That's a huge problem. Women with PCOS generally have poor success with IVF because they have poor egg quality, from that chronic inflammation. That's why it takes time to try to lower the inflammation and try to help rejuvenate those poor inflamed eggs. Try to help them to heal. There's just so much we can do for women with PCOS.

**Felice Gersh:** As a last resort I will use bioidentical hormones. Now, that requires me, an MD to do that because just like with diabetes, if you give enough insulin you can override the receptive resistance and then you can get the blood sugar to come down. If you give women who have resistant receptors to estrogen, if you give them estrogen, you can overcome some of that resistance. There's data actually published, not on women with PCOS, I'd love to get some studies here going, but on women with binge eating disorder. Many women with PCOS have eating disorders and binge eating disorder is the predominant one. They've actually shown if you give bioidentical estradiol to women with binge eating disorder, you can actually overcome it and resolve it. It's amazing, right? Women blame themselves, "I can't help it, I feel like a failure."

**Wendy Myers:** Yeah, when you have high blood sugar you're just constantly craving food, that sugar is not going in the cell. Your body makes you eat to produce more insulin to get the sugar in the cell. It's just biology that always overcomes willpower.

**Felice Gersh:** That's right. It's not a guilt trip. It's not that you're inadequate as a person, it's that it's biology. Everything is logically driven, you're absolutely right. Estrogen improves the GLUT transport function. We have these transporters in the body called GLUT, G-L-U-T, the glucose transporter system. They actually are dependent on estrogen. If you don't have enough estrogen, whether you're in menopause, you have PCOS or you're filled with endocrine disruptors that are essentially giving you the equivalent of having estrogen deficiency because you're filled with endocrine disruptors on your receptors. By having bioidentical estrogen you can overcome this and then you can actually have functional GLUT transport and have the glucose get transported into cells. There are so many other things that are happening, but that's just a very big one right there.

**Wendy Myers:** I'm dealing with that right now as well, because I'm heading into perimenopause and I haven't had a period in about 6 months. It was scattered before and I'm finding I'm voraciously craving food all the time.

**Felice Gersh:** Absolutely.

**Wendy Myers:** I know that it's just because my estrogen is coming down and I'm starting to get a little bit of that insulin resistance, but I'm craving sugar, carbs and food all the time. I try to take steps to deal with that, but this is why a lot of women gain weight. 10 or 15 pounds or more, once they're heading into menopause because their estrogen is coming down.

**Felice Gersh:** Yes, it's an epidemic. Most of the time as you're transitioning into menopause, the menopausal transition, you will develop altered gut microbiome population, dysbiosis of the gut microbiome, which ends up causing the endotoxin, which causes chronic inflammation. Chronic inflammation triggers insulin resistance, brain inflammation, and circadian rhythm dysfunction. You get everything and it gets off beat when you have chronic inflammation. We always start with the gut, but then we have to work with everything, with stress. I'm a big fan of



hormones. I love hormones. I understand what they do. I always say people are afraid of the wrong things. They're afraid of having hormones when they should be afraid of not having hormones. I don't want anyone to be afraid of anything, but if you're going to be worried about something, worry about losing your hormones not receiving hormones. They have to be the right hormones. They have to be human identical hormones, not the chemicals and of course the related stuff that they used in the women's health initiative from 20 years ago. That has created rampant fear.

**Felice Gersh:**

Once we understand what hormones do, we can understand what happens when we don't have them. Every woman has to go through menopause. You cannot escape it. It's inevitable. You may be able to delay it with more vegetables, but you're not going to stop it. We have to learn how to deal with this because a lot of women spend 1/2 their lives in menopause. Women have way more chronic diseases than men. They have higher rates of osteoporosis, osteoarthritis, dementia, almost 3 times as much as men. They have more emotional problems, more anxiety and depression and sleep problems. After menopause the incidence of sleep apnea doubles, the incidence of GERD, gastroesophageal reflux drives goes through the roof, colon cancer and breast cancer. These are related to loss of estrogen, not having estrogen.

**Wendy Myers:**

That's why I'm such a big proponent now, of HRT or hormone replacement therapy. In the past I was thinking, "Oh it's not natural, and what about the cancer risk", but like you said, there's far more risk for not tending to this and just trying to tough it out. Everyone is different in their personal decisions about what they want to do with their body, but I'm definitely personally looking at going on hormone replacement therapy, when I feel like the time is right. You do have a much better quality of life when you're looking at your hormones, monitoring them and getting them balanced.

**Felice Gersh:**

Absolutely, there are herbals that act as estrogen receptor agonists. They are actually plants that, just like cannabis, work on the endocannabinoid system. There are plants that are phytoestrogens that work on estrogen receptors and can be actually healthy and helpful during the transition years, before someone feels ready to go on the actual hormone.

**Wendy Myers:**

Absolutely, let's talk about some of the beneficial steps that someone can take to remove the toxins that promote PCOS and infertility.

**Felice Gersh:**

One is to do some form of fasting. There's actually data on restricted eating, which is sort of a form of fasting or time restricted eating. Time restricted eating can be very beneficial. The other is actual fasting, like every other day fasting, twice a week fasting, or what I tend to use the most is the Fasting Mimicking Diet. There's not data on every type of fasting, but in general we do know that fasting does upregulate, particularly in the small intestine, the cytochrome P450 enzymes, which are phase 1 of detoxification. It's the forgotten phase of detoxification, that's in the small intestine and that is critical for detoxification. Those enzymes are upregulated by fasting.

**Felice Gersh:** The other thing is, of course, to do a total survey of your home. You have to use organic products for cleaning and you have to eat organic foods. The first thing is to lower your toxic load from what you're putting into your body. We want to get out as much as we can of what you already have in your body, but we want to stop putting so much into your body. We definitely want to look at using organic everything.

**Felice Gersh:** It shouldn't be this way. It wasn't that long ago that nothing existed except organic, that nothing had a label, it just automatically was organic. What other option was there? Now we have to actually pay 3 times the price, but it is what it is. If you can have growers that you know, local farmer's markets, that's what I would always recommend the most. Have a farmer's market and find the growers that you know, so that it's really locally produced and it hasn't been sitting in a warehouse for 8 months, either. That can happen too, and some of the standards of organic are changing. You can do hydroponics where they're growing in water but they don't get the same nutrients from the soil. They put something in the water but it's not the same. If possible, get old-fashioned food from an old-fashioned farm that's not too far from you. Also in terms of food, soy is also a maligned food, poor soy. If you have whole organic soy, that's actually a fertility food as well. So that is very important to put some soy into your diet.

**Felice Gersh:** Exercise can also help with your detoxification pathways. People are sedentary so much of their lives. So now I love saunas. Saunas are utilizing our sweating capability. Detoxification involves our liver, that's the main one, but also breathing. I always recommend air purifiers, especially in the bedroom. A really high quality air purifier, because we now have so much air pollution. Air pollution lowers fertility. You need to understand that. So get a really high quality air purifier, in the bedroom especially, but everywhere in the house as much as possible. A water purifier because you cannot trust your local water system, you just can't, look at what's been in the news. They don't even test for jet fuel in most places. The military dumps jet fuel into the ground and it gets into the groundwater, the lakes and rivers. You want to get a really good water purifier. Reverse osmosis is okay, but you lose your minerals. Then you have to take the minerals back.

**Felice Gersh:** You also want to look at, if you can control it, where you live. If there's a community that you're living in that's using a lot of pesticides. Where I am in Irvine, some activist women and I applaud them all the time, actually got it passed by the city of Irvine, that pesticides and herbicides cannot be used on school grassy areas.

**Wendy Myers:** Oh, that's amazing. I love that.

**Felice Gersh:** Common areas like the community parks and such. They can't use herbicides and pesticides any longer.

**Wendy Myers:** That's amazing.

**Felice Gersh:** How great is that. So you have to be an activist as well because you could do great in your own house, but then you go out. You want to play golf and you're playing on a golf course that's sprayed with atrazine, a really toxic pesticide which is used commonly. You go to a place where they're spraying with, not DDT because that's illegal, but the next thing that's not so different with these pesticide sprays. Try to buy everything organic.

**Felice Gersh:** In addition, if you can't do a sauna, not everybody has a far infrared sauna sitting around that they can just jump in. You can sweat, it's cheap. Just go out and exercise. You get the benefits of exercising and the benefits of sweating. Make sure you really wash your skin off really well, within 30 minutes. If you can do a loofah or skin brushing before you go into the sauna or before you exercise and sweat, that will even be better. Then wash really, really well. Make sure that your personal care products are organic. Don't use things with phthalates. In my office I have organic aloe vera shampoo and conditioner. I love it. Well, I don't have the greatest hair, but I really love my shampoo and conditioner. It's all organic and natural. Why would you put phthalates on your head? I mean, everything gets in.

**Felice Gersh:** Birth control pills do not help with detoxification. They alter the gut microbiome and they lower nitric oxide production. I wish I had the ultimate solution for people who don't want to get pregnant right now, but if you can use condoms, it's a lot safer.

**Wendy Myers:** There's not a lot of amazing birth control options that don't affect your hormones.

**Felice Gersh:** No, if I did, I would share it with you. If you can use condoms, it would be better for you.

**Wendy Myers:** Yes. Well, Dr. Felice, thank you so much for coming on the show. That was so informative. Just packed with information, I love it so much. I know all the listeners are really going to get so much out of this. Why don't you tell the listeners where they can find you and learn more about you, and tell us about your book.

**Felice Gersh:** Absolutely. I'm a very traditional doctor. I actually have a practice, it's in Irvine, California. It's called the Integrative Medical Group of Irvine, that's in Southern California, in Orange County. I see patients all the time. This is one of my exam rooms that I multi purposed it into my podcast room. I have my Instagram, I have Facebook, but mostly I do Instagram, and that's Dr.FeliceGersh, Dr.FeliceGersh. I try to do interesting posts. I have 2 books now. My first book is *PCOS SOS*, and that's the foundation book that has like 500 references. It really tells everything about PCOS, all the latest science, and then it has a 7 step program to help you to reverse pretty much all of the PCOS problems. Then I

have a new book out. It just came out in January 2020 which is called *PCOS SOS Fertility Fast Track*. Although it would apply to virtually any woman who wants to get fertile, it has a sort of a special focus on PCOS, and it's a 12 week program. Week by week for 12 weeks, saying exactly what you do to optimize your fertility, really rapidly. That would be the perfect book for someone who really wants to have a baby soon, and is willing to take 12 weeks and really optimize their health, and then move forward to get pregnant.

**Wendy Myers:** Fantastic, I love it. It's so important. I know, even some of my personal friends and so many clients have reproductive issues, PCOS, endometriosis, and other issues. We all know they are linked heavily to toxins, those are the underlying root causes to these health issues. Most doctors you go to are like, "Oh, we don't know what's causing it." Yeah, we do.

**Felice Gersh:** Well, you mentioned endometriosis. That is heavily due to pesticides.

**Wendy Myers:** Yes.

**Felice Gersh:** That's a whole other conversation on that condition. 10% of women suffer with endometriosis. The most researched is dioxin, which is a very powerful pesticide and it creates estrogen receptor problems in women with PCOS. Women with endometriosis have progesterone receptor problems. That's why giving progesterone doesn't really help them, because their progesterone receptors are not working properly and interrelates with the whole endocannabinoid system. That's maybe for another day, but endometriosis is also another heartbreaking condition that is very prevalent and very heavily related to infertility problems and life quality problems.

**Wendy Myers:** That's why I wanted to do this show, because so many women are going to their doctors. They are not taking their weekends or after hours, to actually research the underlying root cause, and ways to naturally reverse this stuff. There is a lot, and we are just getting told to have a hysterectomy or have a painful surgery that really doesn't address the underlying root cause. Albeit necessary for some women, there is so much that we can do that women just aren't educated about.

**Felice Gersh:** I emphasize over and over, we're so much better in natural medicine dealing with early stage disease. I mean, we have to be realistic. If someone comes in to me with endometriosis and they have bilateral huge chocolate cysts. Endometriomas, like 10 centimeter bilateral cysts, filled with endometriosis and fluid, the blood from the endometrial tissue, and they have adhesions and everything is stuck together, there's just so much I can do. I can relieve pain, but it's very limited. If I can get someone early, that's where we can shine.

**Felice Gersh:** Everything is based on being proactive, and most medicine today is very reactive. They just say, "Wait and we'll see what happens." Well, we don't want to do that. We say we're going to intervene right now so that we can modify the future, not just stand by and let bad things happen to people.

**Wendy Myers:** That's why I can't say enough on this podcast, listen to your body and be proactive in seeking answers, because the sooner you get answers, the sooner you can reverse a condition. You don't want to wait until it's too late.

**Felice Gersh:** Absolutely.

**Wendy Myers:** You don't want to wait, don't wait.

**Felice Gersh:** If you are married or have a significant other and you can possibly start your family earlier than later, please do that. If there's one thing no one can do it's make you younger chronologically. Women are designed to have a finite reproductive lifespan. We just think that it's endless sometimes, when we're younger, but it is not. The quality of the eggs, even when you do everything right, is going to decline. Just like menopause is inevitable, fertility is going to decline, that is inevitable. As soon as possible, when life allows it, please try if you want to have a family, you want to have kids in your life, please try to do it earlier than later because I can't turn the clock back. I don't have that power ever.

**Wendy Myers:** Well Dr. Gersh, thank you so much for coming on the show. What is your website again?

**Felice Gersh:** Oh, it's [integrativemgi.com](http://integrativemgi.com).

**Wendy Myers:** Fantastic. Well thank you so much for coming on the show, and everyone go check out Dr. Gersh's website, it's fantastic information. Grab her book, whether you have PCOS or not, the same kind of principles will apply to improve your reproductive health. Thanks so much for coming on the show.

**Felice Gersh:** Thanks for inviting me and good luck to everyone.

**Wendy Myers:** Everyone thank you so much for listening, every week, to the Myers Detox Podcast, where we unravel the underlying root causes of so many common conditions today. We highlight the many underlying root causes, which are toxins, endocrine disruptors, pesticides, insecticides, chemicals, heavy metals and you name it. Every health condition has toxins as one of their underlying root causes. You have to deal with those to address your health conditions. So thanks for tuning in and I'll talk to you guys next week.