



Midlife Clarity with Dr. Tracy Page

"Clarity Changes Everything"

Hosted by Dr. Tracy Page

Episode # 8 — Your Gut Is Running The Show

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Anxiety, heart palpitations, constipation so severe she was having one, maybe two bowel movements a week, heavy periods, recurrent vaginal infections, exhaustion despite getting sleep, and weight that wouldn't budge no matter what she tried. If you've heard that list of symptoms and thought, she needs to see five different specialists, you're not wrong. That's exactly what most medical systems would do. A cardiologist for the heart palpitations, a gastroenterologist for constipation, a gynecologist for the periods and the vaginal infections, and a psychiatrist for the anxiety. But here's the problem with that approach. It treats every symptom as if it grew from a different seed. And in this case, and in so many cases I see at the clinic, they all grew from the same root. One root, one driver, one place that likely hasn't been looked at.

And in this case, it was the gut. Today, we're going to talk and walk through a real patient case, a 42-year-old woman who came in looking like a mystery. And I'm going to show you exactly how the gut, the immune system, and the adrenal glands, as well as her hormones, are not four separate stories. They are one story told across four systems. And once you understand how to read it, you will never, ever look at your own symptoms the same way again. Well, at least that's my hope. So welcome back to the podcast.

I'm Dr. Tracy Page. I'm a functional medicine physician, and this is Midlife Clarity. I run a very busy functional medicine practice in Appleton, Wisconsin, and I'm so glad you're here because I love helping women have vitality and feel amazing. So this podcast is called Your Gut is Running the Show. Why your anxiety, your hormones, and your weight are all downstream of one thing nobody has checked. Okay, I'm going to call my patient Jenna. She's 42 years old. She came to us with what felt like on the surface, a scattered collection of complaints. They had been getting worse progressively over the past year. Anxiety that ramped up significantly, heart palpitations that were alarming, and lightheadedness. And then on the physical side, she had constipation so severe that she was having just one or two bowel movements per week. She had heavy



menstrual cycles, recurrent vaginal infections that kept coming back no matter what she tried. She wasn't sleeping enough. She had about five to six hours on a good night. Her diet was poor. She was leaning on caffeine and alcohol to manage stress and to wind down. No strength training, low fiber diet, high stress with no structured way to manage it. She looked like, I would say, a lot of my overworked women that I see in the practice, holding everything together on the outside, which women are so good at doing, while her biology was quietly unraveling on the inside. But then the labs came back, and that's where the story really begins. Okay, so here's the workup that we did and what it revealed about Jenna.

She had a C-reactive protein, so short for CRP, or CRP. It was 4.4, which is high. Optimal is below 1.0, so she had active systemic inflammation, which was confirmed with her CRP. Her iron panel, the critical pattern, showed a ferritin of 240. It's high, but it wasn't an iron overload. This is inflammatory iron trapping. So we're going to talk about this a little bit more. She had a total iron binding capacity, TIBC, of 226, which is low, which confirms the body is not iron deficient. It is sequestering iron due to inflammation. So her fasting insulin was 20.3, significantly high for a 42-year-old, and optimal is below 6.

Major insulin resistance was already present. Her LDL cholesterol was 107, elevated, of course, and early cardiometabolic dysfunction. So what else did we notice in her labs? Her HDL cholesterol was 43, low optimal. She should be above 60 for cardioprotective cholesterol sufficiency. And her hormones, her adrenal androgen excess pattern. She had high DHEA. She had an adrenal gland that was overproducing androgens in response to her chronic stress. Her testosterone was 54, which in our labs was high for a female, and she had androgen excess driving her symptoms.

And remember, there are optimal levels. And then also, when we look at labs, each lab has a range. And so depending on how the lab processed the sample, their range could be different. So LabCorp could have a different range than Access, and Access could have a different range than Quest. So take these numbers here, normal, low, and high, not optimal, but don't plug in your number into somebody else's lab values because it might be a different lab that caused it. Okay, micronutrients. Her vitamin D



was 15, severely low, so critically low. Optimal for immune and hormone function, again, is 60 at the minimum, and 80 is where we like to keep our patients.

Folate was 3.4, which is low, which impairs methylation. It affects mood and hormone detoxification. And her zinc was 53, which is also low, insufficient for immune defense, gut integrity, and hormone production. Her thyroid TSH was normal, but again, remember that's one of all the tires on the car, so it does not mean her thyroid is fine. Her free T4 was 0.93, which is borderline low, indicating inadequate thyroid hormone production. And her reverse T3 was elevated. Her body was converting thyroid hormone into an inactive, blocking form due to chronic stress. So remember, I told you there's active free T3, which produces great thyroid function and gets all the benefits of the thyroid.

And then there's reverse T3. And when it's elevated, it blocks active T3. It sits on the receptor, but does nothing. Okay, now I want you to sit with this for a moment. On the surface, this looks like a woman who has a dozen separate problems. But every single one of these numbers, the CRP, the ferritin pattern, the insulin, the androgens, and the depleted nutrients, as well as the thyroid suppression, it's all pointing to the same upstream driver. And that driver is inflammatory gut dysfunction. So let me show you how I know that.

I want to take you on a systems tour of Jenna's body. Because this is where functional medicine is different. It's different from conventional medicine. We don't ask what symptoms she has. We ask what is the single dysfunction creating all of the symptoms. And sometimes it's just one thing. Sometimes it's two things. But there's always a driver. So let's start at the root. Root cause number one, gut dysbiosis and impaired motility. That's the broken filtration system.

So I like to use analogies. So think of your gut as a city's wastewater treatment plant. Okay? So your gut is a city's wastewater treatment plant. Its job is to process everything coming in. Food, hormones, toxins, medications. It neutralizes what's harmful; it absorbs what's useful; and it eliminates the rest efficiently. When the plant is running well, the city



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is clean. When the plant breaks down, waste backs up; toxins leak into the water supply; and the entire city starts showing signs of contamination.

And that's Jenna's gut. So her whole body is showing signs of contamination because her system isn't working. Her gut has broken down. One or two bowel movements per week is not a minor inconvenience. It's actually pretty clinically significant. When stool sits in the colon for days, the gut microbiome shifts dramatically. Bacteria that thrive in stagnant, low-oxygen environments, many of which are inflammatory, begin to dominate. So think about it. There are some bacteria that thrive in a stagnant, low-oxygen environment, and they're mostly inflammatory bacteria.

Beneficial bacteria that produce short-chain fatty acids, support the gut lining, regulate our immune function and metabolize hormones are then crowded out. And here's what most people don't know. Estrogen has already been processed by the liver. It gets sent to the gut for final elimination. In a healthy gut, it exits the body. In a dysbiotic gut with impaired motility, an enzyme called beta-glucuronidase, produced by the wrong bacteria, reactivates that estrogen and sends it right back into circulation. This is one of the primary mechanisms of estrogen dominance in women, and it lives entirely in the gut.

Jenna's recurrent vaginal infections are another gut fingerprint. The vaginal microbiome and the gut microbiome speak to each other through what we call a shared immune system or shared immune signals. When the gut microbiome is disrupted, vaginal dysbiosis follows. Independently of hygiene, independently of sexual activity, independently of anything the gynecologist would check first.

So here's some interesting statistics. One in seven women in the U.S. reports fewer than three bowel movements per week. But clinical symptoms begin when motility drops below daily. So all you have to do is have one missed during the week. You only have six out of seven. And you're already going to start with problems. And you're not alone because remember, one in seven women report fewer than three bowel movements a week. Gut transit time longer than 72 hours is associated with measurably higher



estrogen recirculation via beta-glucuronidase activity. Women with gut dysbiosis have three to four times higher rate of recurrent vaginal infections compared to women with a balanced gut microbiome. Severe constipation is associated with significantly elevated CRP. Gut stasis in itself drives systemic inflammation. So if your gut's not moving, you're already going to have inflammation just from that. The gut microbiome produces or regulates over 95% of the body's serotonin, which directly influences anxiety, mood, and gut motility. So now you're understanding why her anxiety is related to her gut. Constipation is not a digestive problem. It's an inflammation problem, a hormone problem, a mood problem, and it's occurring all at once.

Okay, what's root cause number two to her symptoms? The ferritin trap, when high, doesn't mean what you think.

So this is really important. This is the finding I want every woman listening to this podcast to write down because this is the finding that if it's missed or misread, it could have caused real harm. Jenna's ferritin was 240. If you've had your ferritin checked, you might know that a high ferritin is sometimes associated with iron overload or a condition called hemochromatosis. Now we want your ferritin to be above 90 because it's a representation of good iron stores. So you have hair growth; you don't have cold intolerance; your thyroid will function; your brain will function — so you need iron. But a ferritin of 240 is too high, and initially it might be interpreted as iron overload, or like I said, the genetic condition hemochromatosis, where you have an inability to process your iron. So at first glance, that would seem concerning. But here's the critical clinical detail. Her total iron binding capacity was low, and that combination changed everything.

Ferritin, so again, another analogy, because her total iron binding capacity is low, she doesn't have the capacity to bind iron, okay? So she doesn't have an iron problem. Ferritin is like a storage locker for iron. High ferritin can mean one of two things. The locker is overstuffed with iron, or the locker has been locked shut by the building security system, let's say, because there's a fire in the building. The iron isn't overflowing. It's being locked away on purpose. The body does this during inflammation as a



defense mechanism because bacteria and cancer cells thrive on circulating iron. So, you know, if you have a lot of circulating iron and there's a problem, you're going to lock everything down. And that's when ferritin goes high — it's locked down. So because bacteria and cancer cells thrive on circulating iron, when the body senses a threat, it hides the iron. It's called inflammatory iron sequestration or anemia of inflammation. You may have heard those terms.

Okay, so Jenna's body is hiding its iron, not storing excess iron. The CRP of 4.4 confirms the fire is burning. The low total iron binding capacity confirms the iron transport system is not functioning normally. If a physician had seen the high ferritin and given her iron supplementation, which is a completely reasonable-sounding response, it would have fed the inflammation. It could have worsened her gut dysbiosis, and we don't want that. So it's so important that you understand your own lab numbers. It could have caused accelerated bacterial overgrowth, and it might have even made every single one of her symptoms that we have been talking about even worse.

So the treatment here is not iron. The treatment is putting out the fire. Reduce the inflammation, heal the gut, and watch the ferritin normalize on its own.

Okay, so here are some statistics. Ferritin is an acute phase reactant. It rises with any inflammation independent of actual iron stores. A CRP above 3 with high ferritin and low total iron binding capacity is the textbook pattern for anemia of inflammation, not iron deficiency or overload. I see this — I can't tell you how many times in the clinic — so many high ferritins. Approximately 30% of women with elevated ferritin and symptoms of fatigue actually have inflammatory iron sequestration, not iron excess. And giving iron supplements to a woman with anemia or inflammation can worsen gut dysbiosis, increase oxidative stress, and accelerate bacterial overgrowth. And remember, bad bacteria grow in that environment. Normalizing CRP, C-reactive protein, which is our inflammatory marker, through anti-inflammatory interventions can reliably reduce ferritin and restore normal iron metabolism without iron supplementation.



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High ferritin does not always mean iron overload. Sometimes it means the body has locked its iron in the vault because something is on fire.

Okay, root cause number three, the stress adrenal hormone cascade. So in Jenna's case, her DHEA — and we do the sensitive one — was high, and her testosterone was elevated at 54. So in this pattern, adrenal androgen excess is almost never a primary hormone problem. It is a stress problem, and it's a stress response. And in Jenna's case, it's being driven by the intersection of her gut inflammation, poor sleep, and her HPA axis dysregulation from stress.

So let me explain it this way. Think of the HPA axis, the hypothalamic-pituitary-adrenal axis, as the orchestra conductor of your entire endocrine system. When the conductor is calm, every instrument plays in harmony. Estrogen, progesterone, thyroid, cortisol, insulin — they're all in rhythm. But when the conductor is panicky, overwhelmed by inflammatory signals from the gut, sleep-deprived and has chronic stress, the orchestra falls apart. Some instruments get too loud, some go quiet, and the music the body makes becomes very chaotic.

So in Jenna's case, the adrenal glands under chronic stress are overproducing DHEA, and this converts to testosterone. That excess testosterone is contributing to her anxiety. Androgens are very excitatory to the nervous system, worsening her insulin resistance and likely contributing to the severity of her menstrual symptoms.

And then there's the thyroid. Jenna's TSH was normal, but her free T4 was borderline low, and her reverse T3 was elevated. So this is the same pattern we see in chronically stressed patients — the body's diverting thyroid hormone away from its active form, that is T3, and into what I call a metabolic brake pedal. This is not thyroid disease. It's the body deliberately slowing metabolism in response to perceived chronic threats. So you fix the stress, heal the gut, the thyroid will follow, and — you know it — weight loss will happen.



So some statistics. Chronic HPA axis activation elevates DHEA in up to 70% of women with chronic inflammatory conditions. Elevated androgens in women are associated with increased anxiety severity — testosterone and DHEA directly activate stress neural circuits. High insulin is a major clinical concern. Insulin resistance predicts four to five times higher lifetime risk of type 2 diabetes and cardiovascular disease. You should know your fasting insulin. Gut inflammation directly activates the HPA axis via the gut-brain axis. It creates a self-reinforcing loop: gut inflammation, cortisol, and more gut inflammation. Sleep below 6 hours per night increases insulin resistance by 20–30%, elevates DHEA production, and doubles the rate of gut microbiome disruption. So I tell my patients all the time, sleep and stress affect your gut. And it's so true. And then vitamin D at 15 is associated with two to three times higher rate of autoimmune activity, significantly worsening insulin resistance and impaired immune surveillance of the gut.

Her anxiety was in her head. Her gut was on fire. Her adrenals were in overdrive. And her entire endocrine orchestra had lost, you know it, her conductor. So if the conductor isn't around, isn't calm, isn't conducting, all the hormones are off. And remember, that's estrogen, progesterone, thyroid, cortisol, and insulin.

Okay, why is this pattern more common in women over 40? Now, I can already hear some of you thinking, this isn't me, this doesn't apply to me. But everything in this story applies to many of us. Gut dysfunction driving systemic inflammation, driving hormone chaos, driving metabolic dysfunction doesn't disappear no matter what age you are. It amplifies, and for women in perimenopause and menopause, declining estrogen acts as an accelerant on every single one of these mechanisms.

Okay, how does perimenopause make these symptoms worse? Estrogen is powerfully anti-inflammatory. It supports the integrity of the gut lining, the tight junctions that prevent contents of the gut from leaking into the bloodstream. As estrogen declines, gut permeability increases. Studies show that postmenopausal women have measurably higher gut permeability than perimenopausal women of similar age, health status, and diet. That increased permeability accelerates the inflammatory cascade. More inflammation means more cortisol. More cortisol means more insulin resistance.



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More insulin resistance means more androgen production — think DHEA and testosterone. And more androgens mean worsening mood, energy, and metabolic function. And round and round it goes.

If you have experienced a significant worsening of anxiety, digestive issues, weight resistance, or hormonal symptoms in the years surrounding perimenopause to menopause, this is probably why. Your gut became more vulnerable precisely when estrogen left the building.

So here's some statistics. Menopausal women have measurably higher intestinal permeability than perimenopausal women of similar health status. The gut microbiome diversity declines significantly in perimenopause and continues to decline through menopause, correlating with worsening insulin resistance, weight gain, and mood disruption. Estrogen receptors are found throughout the gut — epithelial cells, immune cells, and smooth muscle. Loss of estrogen directly impairs gut motility and barrier function. And I hear this all the time: women will say, "I'm constipated, I don't know why all of a sudden I'm constipated." Women with poor gut health in menopause report significantly more severe vasomotor symptoms — hot flashes, night sweats — than women with diverse, healthy microbiomes. And the gut microbiome metabolizes and recirculates up to 40% of the body's estrogen pool. A disrupted gut in perimenopause worsens estrogen deficiency symptoms beyond what ovarian decline alone would predict.

So if you don't have a healthy gut and you're going into menopause, your hot flashes and night sweats are going to be worse. You're going to gain more weight and your mood is going to be horrible. When estrogen leaves, the gut becomes more vulnerable. And when the gut becomes more vulnerable, every hormonal symptom of menopause gets louder and gets worse.

Okay, how do we treat her? Here's our priority-by-priority roadmap. This is where I want you to be very clear about something. In cases like Jenna's, and in cases for women over 40 listening, the sequence of treatment is as important as the treatment itself.



Treating hormones before fixing the gut won't work. And this is the hardest conversation I have with women, because we're so used to fix-the-symptom, deliver-Amazon-the-next-day quick results, and women don't want to wait. But it's so hard for me to help them understand that no matter what we do, it won't work if we don't fix the system first. Treating anxiety before reducing inflammation won't hold. You have to go upstream first to get long-term resolution of symptoms.

Priority one: fix the gut and the motility. This should be a non-negotiable first step. Until Jenna is having at least one full bowel movement every single day, everything else we do will have limited impact. The gut is the source. It has to be addressed first.

Motility activator: magnesium citrate, 400 to 600 milligrams at night, both supports bowel motility and reduces cortisol stress. Two problems, one intervention. Some patients like magnesium glycinate, but citrate tends to work a little better for supporting gut motility.

Fiber increase: target 30 to 35 grams per day from whole food sources. Feed the beneficial bacteria that calm inflammation.

If lifestyle changes alone don't get patients better, I'll order a GI map with a zonulin test. We cannot treat the gut specifically until we know what we're dealing with, because sometimes it's dysbiosis, sometimes it's SIBO (small intestinal bacterial overgrowth), sometimes it's a pathogen, and sometimes it's permeability, or a combination of all of those and more.

Remove processed foods and alcohol. They both directly worsen gut permeability and microbiome diversity within 24 to 48 hours after consumption. It doesn't matter how many supplements I give her — if those two things are affecting her gut microbiome diversity within 24 to 48 hours of consumption, we're constantly going to be chasing our tail.



The GI map piece is critical. Choosing a prebiotic or probiotic without knowing the gut's actual microbiome landscape is like prescribing antibiotics without knowing which bacteria you're treating. We need the map before we can draw the route. I understand these functional medicine tests aren't inexpensive, but you're going to spend a lot more money down the road taking supplements and trying different things — and potentially diminishing your health — if we don't solve the actual problem.

Priority two: reduce systemic inflammation, put out the fire. Her CRP is 4.4 — it tells us the fire is active. Bringing it down is the second domino. It will also begin to normalize the ferritin, support insulin sensitivity, and reduce the adrenal androgen output driving her testosterone elevation.

- Omega-3 fatty acids, EPA and DHA, 2 to 4 grams daily: directly suppress inflammatory cytokines, reduce CRP, and protect the gut barrier lining.
- Curcumin, 500 to 1,000 milligrams twice daily: one of the most studied natural anti-inflammatories, shown in clinical trials to reduce CRP and improve gut permeability.
- Dietary fiber, 30 to 35 grams daily: butyrate production from fiber fermentation is the primary fuel source for colon cells and a powerful anti-inflammatory. If you can't get there through diet, you can take tributyrin, sodium-magnesium butyrate, or calcium-magnesium butyrate — the sodium or calcium/magnesium is just a buffer for the butyric acid, not a replacement.
- Alcohol elimination: even moderate alcohol, two to three drinks per week, measurably increases gut permeability and CRP in women with pre-existing dysbiosis. (If you're a healthy individual with a healthy gut, that doesn't mean you can't have a cocktail every now and then — understand the distinction.)

Priority three: address insulin resistance and break the metabolic lock. A fasting insulin of 20.3 is a serious finding — it's not borderline, it's high. This is early metabolic syndrome territory. The good news is insulin resistance at this stage is highly reversible with targeted lifestyle and nutraceutical intervention.



- Berberine, 500 milligrams, two to three times daily with meals: clinical data shows effectiveness comparable to metformin for insulin resistance, and it also has direct gut microbiome-improving effects.
- Protein-first meals, 30 grams of protein per meal: blunts the insulin spike, preserves muscle mass, and reduces hunger-driving hormones.
- Post-meal walks, 10 to 15 minutes: shown to reduce postprandial glucose by 20–30% and insulin demand proportionally.
- Resistance training, three to four times a week: the single most powerful lifestyle intervention for insulin sensitivity. It also reduces DHEA and testosterone elevation in women with adrenal androgen excess. (Note: if you're still not sleeping and your energy is low, hold off on resistance training — let your body heal first.)

Reducing insulin from 20.3 to below 6 would predictably reduce testosterone, reduce CRP, improve thyroid function (T3 conversion), and begin normalizing her menstrual cycle — all from this one intervention. But again: fix the gut first, decrease inflammation second, then address insulin resistance third.

Priority four: rebuild her nutritional foundation. Vitamin D is 15, folate is 3.4, zinc is low-normal, and she has an actively impaired immune system, low mood, and low gut repair capacity.

- Vitamin D3, 5,000 IU plus K2 daily with a fatty meal, targeting a level around 80. Vitamin D is immunomodulatory — think of it as a hormone in the body, not just a supplement.
- Methylated B complex, one to two daily (5-MTHF for active folate, and methylcobalamin B12), supports methylation, mood, and detoxification/hormone processing.
- Zinc, 25 to 30 milligrams daily. If used beyond 12 weeks, switch to a zinc balance formula containing copper to prevent depletion.

Standard folic acid requires a conversion step that up to 40% of the population can't perform efficiently due to MTHFR variants — methylated forms bypass that step entirely.



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(If a patient takes a methylated B and gets worse, that tells you they didn't need methylation.)

Priority five: lower her stress load on the HPA axis. Sleep is absolutely non-negotiable — minimum seven to eight hours. Below six hours maintains every pattern we're trying to fix; when sleep is impaired, the gut can't repair, hormone production suffers, and immune calibration can't happen.

Caffeine reduction is especially important here — caffeine directly stimulates DHEA production and worsens anxiety and palpitations in women with elevated androgens. They often think caffeine is what's keeping them going, but it's actually contributing to the anxiety and palpitations.

A cortisol manager or other supplements can be very helpful — phosphatidylserine, 200 to 400 milligrams, and ashwagandha, 300 to 600 milligrams, have both been shown to reduce cortisol, lower DHEA output, and reduce anxiety.

(Remember, this is not medical advice — this is one person, one situation, based on her labs, her gut testing, and her biology. Don't apply this information to yourself directly; you should be evaluated by your own provider.)

Morning light exposure — 10 minutes outdoors, ideally with some walking — helps reset the cortisol circadian rhythm and reduce chronic cortisol elevation, which in turn helps bring adrenal excess down. It's as simple as having coffee by a window or getting outside first thing, but it's important to get that light within the first 30 minutes of waking.

Priority six: let the hormones follow. In this case, I wouldn't treat the hormones first — that's the last thing I do, and I watch them get better on their own. This is the hardest thing to explain to patients, and it's the most important sequencing principle in functional medicine. Jenna's high testosterone, heavy cycles, and hormonal symptoms are not primarily hormone problems — they're secondary to gut dysfunction, insulin resistance, and adrenal stress. Treating hormones before fixing the root cause is like



mopping a flooded floor while the tap is still running. Fix the gut, normalize insulin, calm the adrenals — the hormones will follow. And when they don't follow after three or four months of upstream work, then and only then do I consider targeted hormonal support.

Okay — your action plan, what to do this week. Whether you're 25, 42, or 55, whether you have all of Jenna's symptoms or just some of them, these steps address the foundational pattern we covered today: gut, inflammation, metabolic health, in that order.

1. Count your bowel movements this week. Write it down. If you're not having at least one complete, comfortable bowel movement every single day, your gut isn't clearing waste, hormones, or toxins efficiently. Start with magnesium citrate, 400 milligrams at night, and increase fiber to 25 to 35 grams daily from vegetables, seeds, and other sources — chia seeds, flaxseed, chickpeas, avocado, raspberries, blackberries. This is your baseline before anything else.
2. Ask for a high-sensitivity CRP test at your next blood draw. It's inexpensive and usually covered by insurance. A CRP above 1 in a woman who feels well is a signal; above 3 is a call to action. This single number can explain anxiety, fatigue, weight resistance, hormone chaos, and recurring infections when nothing else can.
3. If you have high ferritin, ask about your total iron binding capacity (TIBC) before taking any iron supplement. High ferritin plus low TIBC equals inflammatory iron sequestration, not iron deficiency — taking iron in this state can worsen your gut, your inflammation, and every symptom driving the ferritin up. Ask your doctor to interpret the full panel — ferritin, saturation, and TIBC — not just ferritin in isolation.
4. Add omega-3s and curcumin if your CRP is elevated. Omega-3s, 2 to 4 grams EPA/DHA daily, and curcumin at 500 milligrams twice daily, are two of the most evidence-backed anti-inflammatory interventions available without a prescription. They address the fire, not the smoke. For women over 40 with perimenopausal symptoms,



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reducing systemic inflammation is one of the most direct routes to improved hormonal function.

5. Add fasting insulin to your annual labs. A fasting glucose can look completely normal while insulin is already elevated at 15, 18, even 20 — signaling your pancreas is working overtime to maintain glucose control. This is a five-to-ten-year window of opportunity before glucose starts rising, regardless of age.

6. Optimize vitamin D aggressively — not to 30, not to 40, but to 80. Below 30 is deficient; below 20 (like Jenna's 15) is a significant immune and metabolic concern. Vitamin D receptors are on every immune cell, every gut epithelial cell, and every endocrine gland. Take 5,000 IU daily with a fatty meal and retest in 90 days.

7. Consider requesting a GI map if you have chronic digestive symptoms, recurrent infections, unexplained anxiety, or hormonal chaos that hasn't responded to conventional treatment. It's a comprehensive stool test that reveals dysbiosis, pathogens, intestinal permeability, and gut-specific inflammatory markers. It's the difference between guessing and knowing.

Your symptoms are not separate. They share a root — find the root, and the branches begin to heal on their own.

I want to leave you with two things from Jenna's case:

First, high ferritin does not always mean iron overload. Sometimes it means the body has locked its iron in a vault because something is on fire. Before any woman takes iron based on a lab value, she needs to know her high-sensitivity CRP and her total iron binding capacity alongside it — those three numbers together tell a story that ferritin alone can't.

Second — and this is the one I want you to carry with you — when you see constipation, elevated CRP, hormonal imbalance, and metabolic dysfunction appearing together in



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the same body, the gut is not one of several problems. The gut is the problem. Everything else is downstream. I spend a lot of time teaching this to my colleagues because it's so important: everything starts in the gut. We live in a medical system that's brilliant, and good at naming downstream symptoms — but naming a symptom is not the same as finding the source. Jenna doesn't have five separate diagnoses. She has one river — inflammatory gut dysfunction — feeding five streams. Treat the river, and the streams begin to clear.

I hope this episode makes you look at your constipation, your anxiety, or even your labs a little differently. Share this with a woman who's been told her symptoms don't connect — they do, and she deserves to know how.

You can find us at our website, Wisconsin Institute of Functional Medicine. We're here to help you dig into your own labs, connect the systems, and help you feel better — or find a functional medicine doctor near you. But you deserve to have your levels checked and to find your root cause.

Until next time, I'll talk to you later. Bye.