Introduction and Guest Background

Hi, ladies. Welcome back to Mastering the Menopause Transitions Summit. I'm your host, doctor Sharon Stills. Lovely to see you here. And we've got a great conversation with, something that's going to really hit home for you.

Being, mostly women audience. So if you're a man watching, that's okay too. You can learn more about the women in your life. But we're going to be talking today with Kayla.

Ostroff, I guess. Yes. Who is a narrow psycho physiologist and an award winning women's health expert whose work has been featured on stages and media around the world.

Her pioneering work in women's health science led to discoveries that are changing the landscape of feminine health. As we know it. She's here today to share her discoveries and reveal the missing link in women's health.

So woo hoo! I'm excited to have you here. Me too. Thank you so much for having me here. I'm really excited to talk all things the magic of feminine biology.

Yeah, so neuro psycho physiologist that. That's a mouthful. So I'm just curious, how did you how would you end up pursuing a PhD in that in that field?

Yeah. I really have always been interested in the human body and especially the human behavior. And actually, when I was little, my mom always used to joke and tell me I'm going to be a brain surgeon, and I feel like that had some kind of psychological impacts, because here I am now, studying the brain and the mind and the interaction between those two systems.

So of course I'm not cutting open the brain, but I do look at, you know, the electrical activity and the chemical activity of the brain. So it's it's a similar idea.

And so growing up, I've always been really fascinated by why people do the things that they do and why some people end up sick and unhappy, and why some people are really happy and, healthy in their life.

And unfortunately, in my family, almost all of the people in my family suffer from some kind of mental illness, and specifically the women within my family have really suffered, and really struggled with their mental and physical health.

And so as I watched that growing up, I was always curious about it. And in undergrad, I was actually studying to go into physical therapy school, but quickly shifted gears towards the end of my undergrad into public health, which is what I got my master's in, because my mom, during that time, ended up with, overdose from opioids.

And this was kind of a shock to our entire family and really, turned my life upside down. Personally. And I was so angry at the health systems that actually caused this addiction.

Her addiction was 100% fueled only by her doctors, and she was taking the medicines as prescribed. And she was a full blown opioid addict. And almost lost her life because of it.

So that's when I shifted gears to public health, and I my goal was to go and work at CDC on the opioid epidemic. And when I graduated with my master's in public health, I did get the job at CDC, though I didn't end up working in opioids.

I ended up working in, emergency response and global health and traveling all over the world and getting to do all kinds of cool research and projects with them.

And it really deep into my fascination about human behavior even more as I got to see these other cultures and I

got to see how people, how people's health is impacted by their environments and how there are different health disparities in different regions where there are different levels of resources.

And this was this all kind of fueled my passion in understanding human behavior and especially understanding the human brain and psychology. And so when I decided to go back and get my PhD, I wanted that terminal degree, to be in what I love the most, which is really researching the human brain and the human mind.

And the program that I found was neuro psycho physiology, which is perfect because that is the study of the brain, the mind and the body, the physiology and how they're all wired together, and how all three of those systems work together to create human behavior or the human experience.

You're you're making me want to go get a PhD. I'm like, this is so cool. I want to I love my program. If you if you're interested, I can send you all the info.

The Gender Gap in Health Research

I don't know if I have time for that, but I'm like, oh my God, I love you. I could just tell you're like, oh, you're doing such great things. It's fantastic.

So let's let's dive in. Like one of the things you talk about is this, this gender gap in, in health research and how this has negative implications for women.

And so we have a lot of women here. So but what do we need to know about that. And how did that happen. Yeah. Well this all started for me in terms of finding out that this was even the case was my own health started to deteriorate when it was about seven years ago, I think now 6 or 7 years ago.

And at the time I was working at CDC, traveling all around the world, I was starting up my PhD process. And I was also at the time, I was performing as an athlete for team USA in draft one.

And, and all of that was going on at the same time, and I was doing all of the things I was taught to do for my health to be healthy. Right? Because I had studied the health sciences my whole life, I knew how to take care of my health.

I knew the biologies and the chemistries and the neurology and all of those things. Right. But apparently I didn't know because my adrenals started to crash and then my hormones followed thereafter.

And eventually, my hormones completely flatlined. And my doctor said, I basically have the hormones of a 90 year old woman. And that was pretty scary and a pretty big wake up call.

So as I got into my studies in neuro psycho physiology, I focused everything towards women, which was hard to do because what I found was that there was a huge hole in our research that women are actually not included in the clinical research.

And so the data on female bodies, female biology is just not there. So it made it really hard to actually focus on women in my studies. And then reflecting back in my educational process, I realized that nowhere along the way.

And this is the same for you and other medical doctors and nurses and coaches and other health professionals that we never once get one course on feminine biology and how it's different from male biology.

You know, there's there's women's studies and this is more about cultural and behavioral type, things that go on. And then there's also, you know, the the bikini medicine, which is, studying the parts that are covered up by a bikini.

Right? The breasts and the, the ovarian processes, the reproductive, parts. But the big missing gap in the research is the rest of the female biology, which is not the same and doesn't operate the same as our male counterparts.

And that's so that's, you know, what I what I ended up diving into and really focusing my research on over the past six years. And what I found is just that is that there are significant differences between men and women and the way our biology operates that is being completely ignored by our scientific, medical and educational communities.

So when you say that women are involved in research, so let's just take like, a cholesterol research study. Are you saying they only put men in the studies?

Yes. So actually, dating back to 1977, the FDA formally banned all women of childbearing potential from all clinical research that remained in effect till 1993, when it was overturned.

Since 1993, women are still left out of the clinical research, and when they are included, it is not at the appropriate levels. Right. So sometimes women are included who are post-menopausal because the assumption is that we're more like men post menopause, which is absolutely not even close to being the case.

So even though studies are skewed in under a false assumption, but yes, even to this day, women are left out of the clinical research and sparsely included.

And even when women are included in the research, the findings are not presented by gender, which they have to be right. They have to be presented by gender.

And the reason why is because there's not enough women compared to men for them to parse it out. So the reason why this is this is the case is actually it's a, it's a, a logical reason why women have been left out, although it doesn't make it right.

And that is that women are risky research subjects while they're cycling. Right, because they can become pregnant during the study. And the other more fascinating reason, which is actually the reason why women are misunderstood, is that we have this biological complexity.

So women are physiologically shifting all the time, meaning that they're very difficult research subjects because they're changing all the time. And so it's really, really hard to control for that.

And so instead of figuring out ways to do that, the solution is just leave them out. It's too hard. Wow. I kind of just like, mind blown because, I mean, in me personally, as a physician, I depend more on the research of the the ancient Vedic and the traditional Chinese medicine and just intuition and things of that nature.

But it's just like, wow, that that's it's not really well known that that's the case. You kind of just assume things. And we know what happens when you assume.

So you meant in something that women's biology is very different than men's. And obviously we know that women cycle. We know that women can get pregnant.

But are there some other examples you could share with us that are not so obvious? Yeah. So the significant differences all revolve around what I call the bio rhythm.

So the male and the female bio rhythm. And what I mean by that is the operating system for our biology, or kind of the biological clock that our physiological systems operate under.

So our, our male counterparts, their bio rhythm is set to the pace of the adrenal hormones or our sleep wake cycle. Right. Cortisol and melatonin, which is a daily repeating 24 hour system.

And when you look at the male physiology at large. So the cardiovascular system, the respiratory system, the nervous system, the metabolic system, the immune system, the neuro endocrine system, all of those things operate on a 24 hour repeating clock.

So every day, biologically speaking, men are pretty consistently the same with long term, really slow changes right

over over their life phases. But day to day, pretty much the same kind of repeats on a 24 hour cycle.

Now, our ladies are much more complicated. Of course, the reason why we're left out of the research. And that's because our biological clock, our biological rhythm, is set to the pace of the ovarian hormones.

Female Bio Rhythm and Monthly Hormonal Shifts

And that is this 28 day long cycle. That's the ebb and flow of estrogen and progesterone. So what that means is that's why we are shifting little by little every single day as women.

And most significantly, we shift four times over the course of a month as these major shifts in those hormones modulate our global physiology. So all of those systems that I talked about before are actually modulated and impacted significantly by the ebb and flow of the ovarian hormones during our pre menopausal phase of life.

And then we'll talk about, of course, what happens post menopausal as well. So so many questions already okay. So so you're saying for a woman let's just start with the cycling women.

And I know that doesn't apply to most of you. But we got to kind of go there so we can learn about where you're at in your journey. Now, as you're saying, the 28 day cycle in a female affects her lungs, her gut, her heart affects everything.

Everything. Literally everything. Kind of a cool fact that, my fellow neuro nerds will enjoy is that, recently. And, I mean, like, within the last five years, we found out that the female brain actually has high density of receptors for estrogen and progesterone in certain areas of the brain, and most specifically, the prefrontal cortex.

The hippocampus and the hypothalamus have the highest densities of these receptors. And these areas of the brain are involved in decision making, memory consolidation, emotional intelligence, verbal and mental acuity, things like that.

And so those cognitive abilities and the way that our brain functions electrically, chemically actually shifts over the course of the month through these phases as those two key hormones, which end up actually being neurotransmitters as well, modulate our brain function.

And that's what happens in our physiology at large. And, and so it's like this, this repeating cycle that doesn't happen every day like our male counterparts, but it happens over the course of a month.

And that's why, us beautiful ladies are very difficult research subjects. But it's also why sometimes we feel that we have higher levels of energy throughout the month, and sometimes we feel that we have higher levels of mental acuity throughout the month.

And sometimes we feel like we have better power, strength and endurance. And sometimes we feel like we metabolize things faster or better. Right? Because all of that is true.

That is what's literally happening in our bodies. And so the key is to really understand how all of that shifts over the course of the month, through the different phases, so that we can operate in a way that's actually in partnership with our body, instead of kind of swimming up river and utilizing all of our resources to quickly.

Exactly. It's I always think of the Red tent and when you're, you're bleeding, you know, in the native, they would go to the tent and commune with each other and take a break.

And that's because the hormones and where they're at. And so it's really important that we, we connect and work with. Otherwise you're like a fish swimming upstream and you're making it more difficult.

So for, for the women who are here who hooray or are pre gaming and want to learn what they can be doing as they go through this beautiful menopause transition.

So and they're more in a perimenopausal state where can be the perimenopausal rollercoaster of where are the hormones. What, what would you have to say for them and have you?

So what's really interesting, and unfortunately we only have anecdotal evidence, but we do have evidence from thousands of cases of women. We don't have empirical evidence because of the science problems that I mentioned before.

But what we know as women, as ourselves and as women in society is that women still experience this month long ish right cycle, even through perimenopause and post menopause.

And so my theory on why that's the case, is because during those primary years of our lives, our biology is trained to operate in this cyclic fashion.

And so when we go through perimenopause and then end up into post menopause, that doesn't change. Our physiology keeps going in a cyclic fashion, even though our ovarian hormones are no longer ebbing and flowing like they used to.

They're more, you know, steady, so even those ladies who are going through perimenopause, yes, this cycle may stretch and compress, but know that your physiology is still operating in this cyclic way.

And so yeah, that cycle maybe a little longer or a little shorter as you kind of go through that change. And when you come out on the other side of menopause and you're no longer, you know, experiencing that, menstrual cycle, your physiology is still going to experience a cycle.

And so I don't know how many women I hear say, you know, I still feel like I have my cycle even though I'm no longer bleeding. And I say, that's because you, you could you do.

It's true that you do. And unfortunately, our society has trained us that. That's not the case. And that, you know, once we go through menopause, we can't say that anymore and we can't operate in that way.

But it is absolutely the case, and it's something that we can empower ourselves with by, first of all, giving ourselves the permission that we can do things differently than our male counterparts because we have to. Right?

And the flexibility to actually do so, the flexibility to shift our routine and shift our environment, shift our support system, shift our nutrition, our fitness, our supplements as we ebb and flow throughout the course of a month with our physiology.

So you you mentioned before, and I think it's important to go back that in the studies or in the research, they kind of think once you're through menopause, you're more like a man.

And, and and could you just speak to why. That's definitely not true. Yeah. Yeah. So this really goes back to that female bio rhythm. Well, first of all, as we go through perimenopause and into menopause, the reason why that assumption is made is because the ovarian hormones are kind of passing on the baton to the adrenals to run the, the show in terms of, you know, our sleep wake cycle, all of that.

Right. So yes, that's true. However, women don't just then turn into men post menopause. First of all, we still have way higher levels of our female hormones than our male counterparts, right?

And we're still women. And secondly, because our body is is groomed to operate in this month long cyclic fashion, even post-menopausal, it still does.

So we still, as women have ebbs and flows in our energy. We have ebbs and flows and our metabolism and metabolic function. We have ebbs and flows in our cognitive function.

And all of that still exists. Post-menopausal, you. And do you think what what is the benefit of having an ebb and

flow. Yeah. Oh my gosh. So there are so many benefits.

I guess maybe if if we have time, we can quickly just go over the four phases that all women have, even post-menopausal. If you're. Yeah, let's go over those and I will be talking about the hormone signatures that cause this physiological signature.

But know that even after you don't have those hormonal signatures, your physiology continues to follow suit. So phase one is the menstrual phase, and this is, unfortunately, one of the only phases that women are ever aware that they have.

They know that they're bleeding or they're not bleeding and they don't get any education about anything else, in terms of their biology. And then if you go into higher education, you may learn that you have four phases, but that's about as far as it goes.

Four phases of the menstrual cycle. You don't really learn more, pass up. So phase one is the menstrual phase. And this is marked by the lowest levels of estrogen and progesterone.

So when estrogen and progesterone are at their very lowest level of the whole month, this is when our metabolic function starts to slow down.

Perimenopause, Menopause, and Tracking Cycles

And our body is literally, creating less ATP because it's converting our macros, our proteins, carbs and fats into a seal CoA. And through the citric acid cycle at a slower rate because of these lower levels of our ovarian hormones.

So our our bodies kind of downshifting during this phase, we also see a downshift in our neurological function in terms of our neurotransmitters. So our excitatory and mood neurotransmitters, are less active during this phase as well.

So that's epinephrine or epinephrine glutamate serotonin dopamine all of those. Right. Those are kind of subdued as well. So in this phase women naturally have a more subdued energy.

Right. They have a more subdued mood as well. And all of that is actually perfect and brilliant. Once you understand these, what I call cognitive superpowers that women get in all four phases that they can actually leverage for their health, for their success.

And so in phase one, when we look at the brain scans of women and we see what's going on with this neuro electrical activity, we actually see that women have heightened, cognitive empathy in phase one.

And that is just a fancy scientific term for intuition. So think about how cool that is. Our body is literally slowing us down by giving us less energy.

It's also taking our outward distracted focus and forcing it inward by subduing the mood, subduing those neurotransmitters. Right. Because it's trying to direct us into our cognitive super power of intuition.

And going back to what you said about the Red tent, that's actually the reason why the Red tent, existed, whether it was a red tent or not, I don't know.

But the the gathering place during phase one happened because of this cognitive superpower. And our ancient cultures knew that. So they would send all the women who were cycling, all at the same time into the gathering place during phase one, because they knew that those women had heightened intuition.

And so those women would go and they would make the decisions for the rest of the tribe for the next 28 day period. And they would determine how to allocate the resources.

They would determine what's going to be the best moves for their culture. And this is something that we used to capitalize on, and we used to know in ancient cultures.

And we lost that information over time. And now here we come with, with neuroscience studies looking at the female brain, and they're realizing what we forgot so long ago.

So I just wanted to do for one second. Yeah. Driving on this. But so for a woman who's post-menopausal how does she know if she's not bleeding. Is it by following the moon cycles or how would someone listening know.

Because that's like a powerful thing. Like I want to use that to like something. Intuition. Yes. So one of the things that I teach women is how to track these physiological patterns so that they can figure out where they are in their cycle, because there's lots of reasons, even, more reasons than just perimenopause or menopause, why a woman may not have a period but still has a cycle.

Right? So there's a couple of ways. One, you can follow the moon phases if you feel aligned with that. Some women feel that that's perfect and that aligns right with the way that they feel. Some women don't.

If you don't feel like that works for you, then you'll have to tune into your body and pay attention to some of these physiological shifts. So for instance, just a couple examples in phase one is this lower energy and more subdued mood.

Right. So you can start to track those changes. And I recommend using a journaling method which will raise your own self-awareness. And over time you won't have to do it anymore because you'll be tuned in to those changes.

But if you can start journaling, you know your energy levels, your mood, your cognitive function, and things like that. Then you can start to figure out and put the puzzle pieces together where you are in the phases.

And once you can figure out one phase, then you can you can map it out from there. So you really only have to figure out where you currently are. Or once you get to a phase where you're like, oh yeah, I'm definitely in that phase, then you can start mapping it out from there.

And then for women who feel aligned to the moon when phase one, be that the new moon. Yeah, typically phase one is at the new moon and then you'll you'll go from there through the other phases okay. Yes.

All right. So we got phase one. Let's go. Phase two is to every phase I always say oh in this phase is my favorite is this is my favorite because they're all so magical.

And it's kind of like, we as women, when we can tune in to our bio rhythm and all these shifts, we have the ultimate bio hack that the other half of the population doesn't have access to.

And so we have these extra gifts, these extra abilities that we can tune into all month long. And so it makes it really fun when we can start to start to map it all out.

So phase two is the follicular phase. And this is and just to mention these phases don't fit in their own perfect box by themselves. They overlap on each other a little bit.

But what I'm talking about in the follicular phase, which is actually what I call the plant phase, because this is when you're planting the seeds of your success for the rest of them.

But what I'm talking about in this phase is a steady rise to a peak in estrogen. This is kind of the key, chemical component of this phase that that interacts with the rest of the physiology.

So as estrogen rises to a peak, so does our metabolic function, right? This conversion of our macros through the citric acid cycle into ATP. So we're generating more energy for our cells during this phase.

And our neurotransmitters are starting to ramp up their activity. And so we're getting more of those excitatory and mood neurotransmitters. So our mood is starting to come out from its shell and be more outwardly focused.

And when we look at the brain and how it's shifting and how our, cognitive function shifts, we actually see that our emotional intelligence rises as estrogen rises.

And so our ability to communicate better with others and more clearly, our ability to lead others is heightened during this phase. And, and as we go through this phase, as this estrogen rises, our power, strength and endurance physically also increases during this phase.

So we're getting more endurance, more stamina. We could work longer hours. We can focus for longer times. We can do, heavier physical activity during this phase.

And what our, cognitive superpower is during this phase is navigation. So when we study our cognitive abilities, we found that a woman's navigational ability is heightened specifically in this phase, which is kind of perfect, right.

Because we're going from phase one when we made our assessments and our decisions and our resource allocations. Right. We shared what no longer serves us.

Those those things that we decided in phase one with that heightened intuition. Now we're taking that we're putting into action in phase two, in our ability to navigate with that information.

It's heightened. So it's absolutely perfect. I'm just sitting here thinking, this needs to be taught at a younger age. Absolutely. And it's always never too late.

So like we can just jump in now. But I'm just thinking so many women, we push ourselves and like, this is just this beautiful permission of being in sync with yourself and allowing yourself the downtime and not feeling, not feeling bad about it.

Yeah, exactly. Because you're going to bounce back in and you're going to be super productive in the next phase anyway. So enjoy the downtime, get those downloads so that when you're ready to run, you've got the information you need to do it right.

So let's go to our third design. The third phase is more of a phase shift than a phase in and of itself, because it's very short, it's ovulatory phase, and it's 1 to 3 days depending on the woman.

Every woman's a little bit different and in this phase it's marked by the peak of the whole month in estrogen, but also a little peak in luteinizing hormone and follicle stimulating hormone.

So with all of those juicy hormones running around in our body, our energy levels are at their highest. Our power, strength and endurance is at its highest, our neurotransmitter function is at its highest level.

And so we are just feeling very outwardly expressive. We're feeling on fire. We have the energy to do it all. And our cognitive super power during this phase is charismatic influence.

This is when we're the most influential. Our emotional intelligence is at its highest level, right? We're able to influence others, hopefully in a positive way.

And so this is when we should be doing our pitches. This is when we should be doing our presentations. Our strategic partnerships are networking, right.

We're more social during this time. And this is what I call the bloom phase, because this is when we're blooming. We're feeling our very best in terms of energy, mood, all of those things.

Right.

The Four Phases of the Female Cycle

So going from that phase into the final phase, which is actually my favorite, I say they're all my favorites, but this one really is my favorite one. The final phase is actually the whole back half of the bio rhythm.

It's the final two weeks, whereas the first three phases are the first two weeks. The final phase is is two weeks long, and this is marked by shifting the stage from estrogen to progesterone.

So progesterone becomes the star of the show as progesterone rises to a peak during this phase, steadily, and estrogen is kind of coming back down the other side of the slope.

There's a little bit of a bump in the middle, but progesterone is a key player during this phase. And with progesterone, it does some really cool things to our brains specifically.

And so this is why I call this the brainy phase. But I also call it the growth phase, because this is when we are literally growing our ability to learn and adapt is heightened during this phase because of the neurological benefits that happen.

So as progesterone rises to a peak, so does brain derived neurotrophic factor or Bdnf. You might have heard it called. And Bdnf is a neurochemical that does some cool things to our brain, a couple of which is increase neuroplasticity.

So it increases our ability to adapt, our ability to consolidate memories, change behaviors, things like that, learning new things. And it also increases our neurogenesis.

So not only is our brain more moldable right during this phase, but it is literally growing new neurons at a higher rate. So that's why I call it the growth phase, because it's our brain is growing during this phase.

The other cool thing that happens neurologically during this phase, with that peak in progesterone, is a heightened activity of Gaba neurotransmitter.

So Galvin neurotransmitter, unlike the others that are excitatory, this is an inhibitor to neurotransmitter, and it's actually related to us getting restful sleep and memory consolidation.

So we have higher ability for more restful sleep to really reap the benefits of these neurological shifts that are happening. And we have heightened memory consolidation during this phase.

So this is when we should be focusing on our learning, on our studying. This might be why this is my favorite phase, because this is when I've got my face down to the research.

This is when I'm studying. This is when I'm learning. This is when I'm writing papers, things like that. Because I understand that I have this neurological propensity to be better at those types of activities during this phase.

Creative fun. I find that's a phase so frequently where women are so out of balance. Yes. Yep. And typically, as I'm sure you know, and looking at labs and all kinds of things, of your patients, there's it's pretty easy to dis regulate our progesterone, especially as women.

Right. And there's a lot of reasons why this happens. But when we experience the fallout from dysregulation of progesterone, especially during those cycling years, we experience negative side effects that go under the catch all term of PMS.

And PMS is just it's not a thing in and of itself. It's just a lazy diagnosis for there's something wrong with you, and I don't want to take the time to figure out what.

So I'm going to go ahead and say it's PMS and you'll be over it in a week. Okay. Exactly. I always say when I, when

I need a new supply of fresh flowers, I get my patients progesterone fixed and it's like, oh, the husbands are so happy.

The women are so happy. It's it's, it's such a game changer. Yeah. Oh my gosh. Absolutely. And so I think when we can get into in touch with this ebb and flow of not only our hormones but our physiology, and we can start to build a lifestyle that matches these changes and the superpowers that we have.

Then we can start to enjoy better health and more success and more fulfillment. And it really just starts with giving ourselves the permission and flexibility to do things differently than what we've been taught.

So again, for the the postmenopausal woman like myself, it's really either figuring out with the moon or just getting in touch with when do you feel the most intuitive, or when do you feel the most charismatic.

And so it might take a little longer to find your. But once you find one, then you can just follow the flow of the calendar in the days. Is that correct?

Yes, absolutely. And again, you'll you'll have to figure out how long your cycle is. You may be 28 days, which is you know what what the assumption is everyone's 28 days is not true.

Actually, in the United States, the average cycle length is 30 days. So it's probably closer to that for at least us women. And then and then. Yes. And then you can kind of figure out, how many days you spend in each phase and map it out from there.

And I have this whole process mapped out, in my program for women, if people are really wanting to dive in deeper and learn a little more about the science and learn how to track and and do all of that and the cool what you might be interested in, actually, I think would be a better fit for you as I just opened up a certification program in female biology is basically like a master's level education that isn't provided anywhere yet.

In feminine biology and this biological rhythm and how to align our lifestyle with these ebbs and flows and how to track it and how to guide, the women that we support in their health through this cyclic way of being.

I love that because, so about the circadian rhythm and the seasonal rhythms and the planet Terry rhythms. And so there's so much to rhythmic medicine and.

Oh, yeah. And I just think if, if we as women learned that, like, if we can teach the young women that we would be so much kinder to ourselves and not just push be like, excuse me, I'm in my intuitive phase.

I'll see you next week, hypothetically and want you want that, right? Even if you are, a business owner and you have women who are working in your business, especially in leadership positions, you want them to be able to tap into these cognitive benefits because they're going to be able to improve your business, because they're going to actually be more productive.

They're going to be more healthy. They're going to be more happy. They're going to be more focused. They're going to get more done in less time. Right.

When you understand how to allocate your resources appropriately, and that's really what it's about. That's fantastic. What did the I'm just curious about women who are pregnant or postnatal.

How does this play out for them? Yes. Oh, I love my pregnant ladies. And unfortunately for our pregnant ladies or breastfeeding ladies, they are an even more underserved population because they are protected, right?

And so they are not allowed to be included in any studies, even if they're benign studies, they're still not included in because of ethical approval. Right.

You can't get human subjects research approval to do research with pregnant women. So my answer for that is, I

don't know. Unfortunately, however, the women who I have worked with and taught who go through the pregnancy cycles say that they can usually follow the moon cycles, and so that usually works well for them.

Some women, though, report feeling a little more steady, so they actually may thrive in a more consistent environment during pregnancy. But it's been half and half.

Some women report still feeling like they're in this cyclic, or in this cycle. And then some women report that they feel pretty steady throughout the pregnancy.

So I'm unsure. And maybe it's a case by case. I'm not. I'm not 100% positive. And I have one more question. I don't know if you'll have an answer, but as a neutral Catholic physician, I work with a lot of women, especially post-menopausal, where I have them on bioidentical hormone replacement. Yes.

And so how so there. You know, we do mimic the the cycle the best we can and often we take a break. But often we're doing it according to the moon or it's a lot easier often for women just to do it according to the calendar.

And in my vast, vast experience, I've found some women we can't really do like a lower progesterone in the follicular phase because they just really don't feel good.

So that so we're prescribing, prescribing and their hormonal state is more stable. Well, and how does that affect things? Yeah. I think I'm on the fence about that.

Because when we look at our, our postmenopausal ladies who are not on hormones, they don't have that ebb and flow anymore in their hormones. So they typically have pretty healthy levels of hormone of estrogen and progesterone in terms of what we want to see, post-menopausal.

But if you're mimicking the cycle, then I would think that that would even support them more for the ladies who need that, that extra support with the bioidentical hormones, not all of them do, but some of them do.

So the women who don't, they're still operating in this cyclic way in terms of how their physiology is functioning. So would be the same for those women who are taking the bioidentical hormones.

But I would assume that it would be, probably really beneficial for them to start tracking their bio rhythms. So, you know, not the menstrual cycle, but the bio rhythm in terms of ebb and flow and energy levels and mood in, and, cognitive function in these different things so that they could understand maybe their, luteal phase is, is shifted from what, what they think it is.

And that's why I say the moon, the moon phases work for some women, and then they don't work for other women because other women's bio rhythm is it is it sync up with the moon so it doesn't work perfectly every time.

So the moon would be a good place to start. And for women, who's by over them? Aren't sync to the moon? Is that an issue? Like shouldn't shouldn't we be sync to the moon?

Well, I don't want to say should I know? Every woman, every woman, bio rhythm is perfect for her. In her situation, you know, our bodies are so brilliant.

They adapt to the requirements of our life. And so if your life requires a different kind of biological rhythm, that's probably why it's that way. Because of your your lifestyle.

And you know what you need from your body and how you operate. So I don't think should. In a perfect world, yes, we would all, sync with the moon phases or with the with the phases of nature because we don't we wouldn't have endocrine disruptors and we wouldn't have demanding schedules that force us out of our natural rhythms.

And we would be able to sleep in wake with the sun and the moon. Right. And we'd be able to operate in this natural way, which is what women in ancient tribal times were likely able to do.

They were they were probably able to rest when they needed to rest and be highly functional, and they needed to be highly functional and stay up longer during some, sometimes as phases, and prioritize their sleep during other times in the in the cycle.

Because we're not able to do that a lot of times as women, because our our lives demands something different from us, our bio rhythm will adjust, over a long period of time.

Right. So if that's been the case your entire life, and now all of a sudden, you want to sync up with the moon phases, it may, may or may not be possible because of how your physiology has been trained to operate for the vast majority of your lives.

I find, again, it's about 5050. Women, post-menopausal that say that they feel, yeah, perfectly aligned with the moon cycles. And then the other half say no, that I don't feel like those cycles match, or those phases match with what's going on in my body.

And so in that case, they just have to figure out what their rhythm is. But either way, it's perfect for them. Do you find the ones that don't align to the moon, have been lived a more stressful life, and have been more out of sync and absolutely, absolutely.

And I'm I'm in that camp as well. You know, I really did a lot of damage to my adrenals and my hormones. In the vast majority of my life. And I always had kind of a erratic cycle, that didn't align with the moon.

And I find now that it starts to sync in with the moon phases, and then sometimes I'll get out of it, and when I get out of it, I realize that's because I'm starting to go into that adrenal burnout mode.

I'm working two lot of days. I'm sitting in front of my computer for 12 hours every day, or, you know, I'm not moving my body enough or I'm not, eating enough.

That's a big thing with women is we get busy and then we're like, oh, I'm not hungry. And then we skip meals. And that causes hormonal dysfunction as well.

So there's a lot of reasons why we get kind of kicked out of our natural rhythms. But that is a great indicator of hey, maybe, maybe something's not aligned with what your body's asking for.

So, you know, just tune in and if you feel like this is working for me and I feel healthy, I feel good, then great. Follow that rhythm. If you don't, then you can always shift it.

And what about shift workers? What have you? And, I mean, you have any experience with shift workers?

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Yeah. I don't personally have a lot of experience. I have had a few, students who have been shift workers, and I find that their adrenals are, are suffering because of the sleep issues specifically.

So it's not necessarily the shift. Work. It's the lack of appropriate sleep. A lot of them are getting, you know, 4 or 5, maybe six hours of sleep. And then they're sleeping like 12 hours on their days off because they're so exhausted.

And that's just not going to be healthy for anybody's natural rhythm of their body. And especially I also want to mention that sleep becomes a higher priority.

Sleep is always a high priority for health and function, right? Especially when it comes to our brain and neurological, health. However, sleep becomes even more imperative in those final two weeks in the luteal that growth phase, because of these neurological shifts that happen.

And we will actually bypass those benefits if we're not allowing ourselves to get the proper amount of restful, restful

sleep that we need, which is a little higher than it is during the other two weeks.

And I just have I know I lied, I said I had one more question, like five questions ago, and I love it. And I just want to go back also to when you were talking about the cycles, for those of you listening who are still cycling or who have daughters or nieces or friends, because we are taught, oh, you should have a 28 day cycle and you don't, you're not normal.

And so you mentioned that they tend to be more to 30 days. What what do you think about women who cycle every 25 days or 20 days? Do you think that's normal too?

Well, normal is relative to the culture. Again, if we were living in ancient times when we didn't have all the technologies and things that disrupt our, our cycles and our our neuroendocrine cascade, then we would all be on a 28 day cycle that would align perfectly with the or with the moon phases.

However, because our environments, our infrastructures and societies are not built that way and they don't grant us that, ability to live in these natural ways.

Right. Our cycles become shorter or longer. And with my ladies who have those shorter cycles, I typically find that there's some metabolic issues going on.

A lot of times they are underweight or they are overly exercising or they're just rubbing up their adrenals every single day living under extreme chronic stress.

And then the ladies who have the longer cycles, it tends to be kind of the other side of the spectrum, and their metabolic function might be a little slower than normal.

They may have, they may feel the, the other side of it where they're feeling more of the crash, the brain fog. And they're not necessarily revved up, but they might have been in the revved up phase and then gotten all the way past that to the crash side of things.

But that's not the case for all women. And again, in the US, a 30 day cycle is is average for us, and that's likely because of our lifestyles and our environments.

So I hate to say that there's a perfect or normal because there's not really a normal when it there's a normal within certain societal constructs. There's not a normal across the board.

I love that. Well this has been a fun journey. Is there anything else you want to add before we wrap things up that I didn't ask you that you think it's important to share or did we get it all.

Well I would love to leave all the ladies and men, whoever's listening with this final thought, and that is that women are the greatest untapped resource that we have in modern society.

If you really think about it. Right. Because we have this extra capacity that none of us are taught how to tap into, and a lot of us are only operating on, you know, two out of six cylinders.

Right. Whereas when we can actually learn how our bodies operate, we can get that user's manual and we can align our lifestyle so that we can meet our basic biological needs as they shift, then our capacity becomes heightened.

It it becomes we reach our full potential. Right? So if if half of the world is not reaching their full potential because they're being kind of held down by this lack of information flow that they need in order to do it now, then imagine what would happen if we turn it up with half of the population, if we get half of the population.

Finally stepping in and reaching their full potential, imagine what kind of innovations will be brought to the world and how the world might change. And so I, I just ask that all of us give women, give ourselves the permission and

flexibility to do things differently because we are different and, for the ladies listening, I know you know this, you're feeling this, and it's absolutely true.

And there is scientific evidence for it, for anybody who needs that. So allow yourself to do things differently, because that is what your body requires.

A lot of that and that. And so where can where can we find out more? I know you're on Instagram. Is that where you typically hang out? Instagram is a really great place.

If you want to connect with me. I post a lot of, you know, free information there. I also post when I have free masterclasses and different events that I'm speaking at.

I usually post those there as well and my handle is at bio. Curious underscore Kayla. And if you want to learn a little bit more about the bio rhythm science, for women, then you can just go to her bio rhythm.com and right that down where I will thank you for for coming and sharing and educated and just for for being a force of nature.

You're in the world and you know, you are harnessing those superpowers. And it shows you're you're leading by example. And so create your country versions.

And I told you it's going to be an interesting talk to you. So go check out the moon, see if it aligns. Go check it out. And thanks for being here. See you soon.