Emily: I'm Emily Kumler and this is Empowered Health. This week on Empowered Health. We're going to talk about menopause and we're going to start where it all begins, which is when your hormone levels start to fluctuate, which people are thinking maybe is a lot earlier than they had thought before. So I'm 42 and I feel like this is something that I talk about a fair amount with friends and it's something that people are generally like just sort of curious about. It seems like there's a lot of wives tales around how this happens, what it happens, what it feels like, why some women experience insomnia and hot flashes and some women don't. But what's interesting to me is that they're actually finding that before your periods change in cycle length or duration or whatever, there are other hormonal changes that women are recognizing in themselves. For instance, When you no longer produce estrogen out of your ovaries, that's when we tend to think like, okay, you're menopausal. But it turns out that that's not really a linear experience. So it's not like you over time produce less and less estrogen like sort of easily. It's like turns into this like crazy roller coaster ride where you produce a ton and then you produce none. And we'll get into all of that. But I also think it's like really fascinating that this is such a big life change that women go through and that there isn't better information shared with women about the experience, about what it means about how to know your own body. So our first guest this week was a lot like me. She was curious, she was sort of starting to think that maybe her body was changing and she wanted to see if this was accurate and if it was something that her friends were experiencing. So she and a friend like sort of designed this survey, sent it around and because of the now database they have of women's self reporting on hormonal changes, they are actually moving the needle in the research community.

Nina Coslov: My name is Nina Coslov[1] and I'm the founder of Women Living Better[2] and Women Living Better really came out of my own experience being sure that the changes that I was experiencing and then a good friend of mine were experiencing had some hormonal basis or they just came on too quickly to believe that there wasn't something biological behind it, even though our doctors wanted to just treat the symptoms. That thrust us into a major research effort and we couldn't believe what we had learned and so we felt compelled to share that with women. That's kind of the backstory on Women Living Better.

Emily: Just to get us started, I think one of the things that's really interesting is this idea of going to a doctor and having them want to treat symptoms rather than like trying to understand the root cause of something. Can you talk a little bit about that experience that you had?

Nina Coslov: I absolutely don't ever want to throw doctors under the bus because I think they're doing the best with what they have. And I think a big part of the story is that particularly about, I'm now calling it the menopausal transition,[3] which might be another part of our conversation, which is why I'm steering away from perimenopause.[4] We can get onto that later, but I think there's not a lot of research and what research is out there really hasn't made it to healthcare

[1] https://www.today.com/health/what-perimenopause-symptoms-onset-age-treatment-more-t154118
[2] https://womenlivingbetter.org/
[3] https://www.medicinenet.com/script/main/art.asp?articlekey=8944
[4] https://www.webmd.com/menopause/guide/guide-perimenopause#1

providers. And so all they can really do is treat symptoms. And a big, big focus of mine is focusing on this period before periods are irregular.

Emily: And why is that important?

Nina Coslov: Because that was my experience, and my cofounder Jo's[5] experience, and I think there's so many women, I think that is the time when it's really under-acknowledged and under-understood and under-researched. There is a little bit of data out there. There have really been only two longitudinal studies[6] so far that have looked at women, starting at 35, which would show you what symptoms women are experiencing when periods are regular. And I think the really important thing is that is the question that doctors asked. It was certainly the question that I was asked. If you're not sleeping and you're feeling just more fragile, I mean I think anxiety is such a big term. And for me it was really this just like fragility or not coping, feeling like I couldn't cope as well as I used to. And the first question they ask is, are your periods regular? And I said yes. And they said, well then this is not menopause,[7] perimenopause, whatever their favorite term is, that's when they, you know, say let's help you with your symptoms. So you know, in the limited time they have, it's sort of the best they can do. And I think until there is more research, and what research is out there is kind of, you know, pushed through the knowledge translation channels to get to healthcare providers, that's going to keep happening. And so that is sort of the main goal. I mean I have an overarching goal of educating women in general and making this discussable and making women know that it's normal and you're not alone for all of the hormonal changes. But my real effort is on this early part while periods are still regular.

Emily: And so we've heard that referenced as the sort of late reproductive phase.[8]

Nina Coslov: Yup. That is what it's called. Interestingly, the beginning of this project, a lot of the language on the site was perimenopause starts early. And it was actually in working with Dr. Nancy Woods[9] that she said, you know, in 2001 this international group got together[10] and we finally said, we need to kind of codified the terms and figure out the stages of how women move through their reproductive lives. And they really put a stake in the ground saying perimenopause starts when cycles differ by seven days. I personally think that that is way too late and I know women experience symptoms sooner. But she had a point that for 20 years that has been the definition. I certainly want to be aligned with the way that whatever information has made it through to healthcare providers to be consistent. What I realized is I really just care about women. And what women think about is, are my periods regular or not? And that's the most, it's the easiest way for two women or a woman and her provider to have a meeting of the minds on

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[5] https://www.linkedin.com/in/jomcchesney/
[6] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6299955/
[7] https://medlineplus.gov/menopause.html
[8] https://womenlivingbetter.org/hormonal-changes/
[9] https://nursing.uw.edu/person/nancy-woods/
[10] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3340903/

where she is. And so for me, I think late reproductive is just a term that's not well known and a few people have joked with me that I should invent a new name for that phase. But stopping short of that, it is the late reproductive phase officially when periods are still regular, hormonal changes start, and for some women they experience symptoms. I think that is the message that I'm trying to get out there. I think the other very subtle thing is that if women are tracking their periods, and of course there's so many women that are using some kind of birth control that changes, that disables their periods from kind of changing month to month. But you know, it was really powerful for Jo and I to start tracking our cycles. And you know, low and behold it's a pretty cool graph. I think we need to update the data, but you can look at it on the website,[11] at our personal data you see a shortening and that shortening is a sign that hormones are changing, but you're still getting a period every month. So that was a very interesting learning and one of the reasons that I felt it was important to focus on this phase. I think there are plenty of women who are officially in perimenopause, that is having skipped periods or very irregular cycles who also don't feel validated or helped by their healthcare providers. And I certainly want to help there too with education. But I think particularly women who start experiencing symptoms early in this late reproductive phase, as you correctly named it, really aren't feeling validated and often very scared and alone because there's a whole place, a whole bunch of places your mind can go, particularly you know that we're having children later and there are so many people dependent on you. And you're not sleeping and the mood changes and you know, whether it's heavier bleeding, I mean it really, it can feel like the wheels are coming off. It's very hard to find a healthcare provider that's going to say, don't worry this is unpleasant, but this is the beginning of hormonal changes. I feel like that would go a long way towards helping women.

Emily: And so one of the things that I think is really interesting is this idea that you want women to feel listened to, right? Or validated in the sense that, you know, this isn't something to ignore and or that this isn't something that is an anomaly, I guess. At the same time, there also are lots of other reasons why a woman might be experiencing some sleep deprivation or anxiety or mood swings or whatever. So how do you advise women to differentiate between, I mean, I think we're so bad, especially in this country at assessing, you know, sort of mental stress and women are all too often told that their physiological problems are really mental problems, which is a personal pet peeve of mine. Part of the reason that I'm really interested in covering this topic is that I think, I mean anecdotally I do this right where I'm like maybe I'm just really stressed, maybe I'm 42. Maybe I'm going through some sort of like perimenopause. Maybe it's that my diet has changed or I've been traveling a lot. That's also just sort of like status quo. I think for a lot of busy moms, working moms, moms in general, right? Women at this stage of the game. So how do you help women sort of latch on? Because I feel like you do have to kind of commit to an answer in order to have that sense of relief. Partly because we're given so much different information, but also because this isn't very well understood. How do you help women differentiate that?

[11] https://womenlivingbetter.org/track-your-cycle/

Nina Coslov: I think that is one of the reasons that this hasn't been more research because it's so multifactorial. And there's lots of reasons to be up at night. The older your kids get or just having kids, right? I mean there's right and there's just the general stress of the world. So I am not, I think it's really important when any new symptom arises or something is really disruptive to talk to a healthcare provider about it. What I am just trying to introduce and I just want women to know is that there are also biological changes going on that can be contributing to that. And to the extent that that makes women feel better, or if they go to the site and they see a whole cluster of new symptoms that have come on recently and they're in their early forties I just think for me anyway, it gave me some reassurance like this is normal, this isn't fun. But there's a lot of women experiencing this and this is not something really wrong with me. But I think you know, women have to balance that with saying, you know this, this seems really out of the ordinary. Or maybe it's normal but I can't deal with this. And so I think it's really individual for every woman to figure out. But just the introduction. I think the very, you know, sometimes I say I can't believe it's taken me so long to get this out there because in some ways it's so simple. It's just the idea that hormonal changes can cause these things also and can contribute. So I don't know if that answers your question, but it's introducing another potential cause. One that for some women is huge. I mean I think women are differentially sensitive to their own hormones. You know, thinking back to friends throughout high school and college and various parts of my working life, you know, some women were really, really incapacitated by premenstrual syndrome, PMDD.[12] And others just kind of sailed through, got their period. And I think perimenopause is another time when hormonal changes can really affect women in different ways. So it's really the introduction of it as a possibility.

Emily: Yeah, and I mean I think that the other thing that's really powerful about what you're doing is the change or like all the other ways that we've talked about getting your period or going through menopause as sort of being this hush, hush, embarrassing or dreaded kind of thing. Like, I think the more we can bring this into the public in a way where it's like, no, actually if you're healthy this is going to happen to everyone.

Nina Coslov: Yeah. The other like sort of, confounding might not be the right word, but the other interesting thing for me is I was so surprised that with more women doctors of our age that this hadn't been like, you know, run up the flagpole or you know.

Emily: Yeah.

Nina Coslov: Part of it is, and I've mentioned this to some of the different experts and researchers I've collaborated with, I happen to think that a lot of those women either stay on birth control or have a Mirena IUD [13]or something that minimizes the impact of the changing hormones, the fluctuations.

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[12] https://www.womenshealth.gov/menstrual-cycle/premenstrual-syndrome/premenstrual-dysphoric-disorder-pmdd

[13] https://www.mirena-us.com/about-mirena/

Emily: Well, but I also think that like you can't, we cannot underestimate the stigma that goes along with like sort of the idea of women hormones and emotions, right. Anybody who's like a competitive professional in any industry is going to shy away from any study that might potentially say women are unstable or hormonal or you know, like, I mean I think that is its own, it has done its own disservice to us in a way that I'm sure female researchers are not like wanting to take on something that might be perceived in a negative way.

Nina Coslov: And I said to someone, I certainly did not mean to become the face of, you know, perimenopause, menopause and menopausal transition. But there's just, I don't know, making stuff discussable that people are experiencing. I mean, I think the converse is driving it underground and having some women feel really crazy or worrying about feeling really crazy because of these changes. I think there's such a release in discussing this and sharing it and I mean the number of women that I know through lots of different things in my current life that now will come over and say, you know, after years, like, just share something with me. And they just seem so relieved to be talking about it.

Emily: I think that's actually true probably in any diagnosis where somebody has been searching for answers, like even if it's a terminal illness in some ways I think knowing, giving a name to something allows people to sort of move on from the question of like, am I, you know, am I making this up? Is it real? Can we talk about it in a concrete way? Because until you do that, it is this sort of heady kind of thing where you're not really sure what it is and you know you don't feel great, but nobody seems to believe you. And all of that invalidation, I think it adds stress and probably exasperates the underlying condition.

Nina Coslov: And you said something before, I mean it was certainly true for me in my personal experience. You know, you just wonder when these new things come up, like, wait, is it something in my life? Right? And every woman is either balancing a career, and family or has given up a career for family, or has decided not to have a family for career, you know, there's some variation in every which one of those, in my experience, comes with its own challenges and questioning and wonderings. And I think that it's easy to have these symptoms arise, particularly the ones that are less physical, like the sleep and then sort of, you know, awake at night and feeling anxious and worried and you know, the more mental aspects of this and wonder if it's us. And I don't know that that's a more female thing. I sort of suspect it is, but I, you know, I don't need to go there with it. It's just, I think it's easy to look at places in your life. And so I think back to your question about the goal is not to necessarily diagnose, but to to raise this as it could be hormonal even though I'm still having regular periods. That might be why all of a sudden I feel, so like you know, some of the things that women write in, you know, on the site and just, you know, all of a sudden I felt so much angrier and I just feel like I'm, it just doesn't feel like me. And that was certainly my experience. I just remember saying something is different. This just does not feel like me all of a sudden. And it seemed too quick. It wasn't gradual and really not that much had changed in my life, you know, right then.

Emily: I also think the other thing that you're doing is drawing attention to the idea of being sort of aware of your body, which I think women, you know, whether it's because you've been on the pill for a long time or even like, I mean the use of tampons I feel like can sometimes inhibit your ability to know what your flow is, right? I mean like if it's really a lot heavier then you're going to notice, but oftentimes you don't really pay that much attention. And so it's like more about like how many hours it's been in and remembering to take it out and put another one. And so I think this idea of like how is your flow? Or like what are the, you know, the days in between periods? Like even just sort of putting that out there gives women the opportunity to ask themselves questions privately about what's going on and getting a baseline, even if it's before anything has changed or to start to notice some of that stuff.

Nina Coslov: That would be the best. I mean that is actually the vision and the goal, which is like having all women at 35 know this. Then you know, when things change like oh this is what's different now. And to your point, like I was probably one of the least bodily aware people. This was all both like so enlightening and kind of exciting to me that I could see my cycles getting shorter. Not always, but definitely the disrupted sleep and the mood stuff was worse right before and kind of in the day 2 or 3, when levels are still low. And so if you look at the chart of just the normal period, I mean, you know, we have that on the site because it was so profound for us. Like we never knew just what estrogen[14] and progesterone[15] are supposed to do during your cycle and what each is responsible for and things start sort of fitting together. I mean, as I say, there are plenty of nights I don't sleep and they make no sense in terms of all that. It's empowering and it's at our disposal.

Emily: Yeah, it actually reminds me, we did this episode on women and weed,[16] or THC products. And one of the things that the researcher that we interviewed was talking about was how when you're ovulating[17] and your estrogen is the highest, you will experience a heightened high.[18] And I said to her, I'm not a big weed smoker, but I was like, what about wine? Like if I drink wine while I'm ovulating, do I get intoxicated faster? And she was like probably. And I was like, Geez, I wish somebody had told me that when I was younger.

Nina Coslov: I mean that's a great one because I can tell you anecdotally that I have lots of women, well I don't, I can't drink wine at all anymore, just in the last couple of years. So that's certainly, I can't metabolize it. There's a theory that your liver is what clears estrogen and it's also what would clear wine, right? It's part of how wine gets digested. And there are many, many women who have either stopped drinking wine. I mean, they say they can't, they can't

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[14] https://www.hormone.org/your-health-and-hormones/glands-and-hormones-a-to-z/hormones/estrogen

[15] https://www.hormone.org/your-health-and-hormones/glands-and-hormones-a-to-z/hormones/progesterone

[16] https://empoweredhealthshow.com/women-and-weed-estrogens-impact-on-our-experience/

[17] https://www.livescience.com/54922-what-is-ovulation.html

[18] https://www.researchgate.net/publication/45536915_Antinociception_and_sedation_following_intracerebroventricular_administration_of_D9-tetrahydrocannabinol_in_female_vs_male_rats *Rodent model study

metabolize it. So it makes a lot of sense to me. That's not something I've researched yet in any depth. And I don't even know if the research is out there, but I know that women, as they get into their forties many women, their relationship to their choice of alcohol changes.

Emily: Just again like anecdotally, which I talked about on that episode, but I feel like from different times in the month I can have a glass of wine and be like totally fine and be like, okay, give me more or I feel like I can't drive. So I just, I mean I feel like I never drink any wine and plan to drive at all because I don't know how it's going to impact me. And after that interview I realized, wow, I should try to link this with my menstrual cycle and see if there's a pattern that fits there, which there probably is, right? But again, it's one of these things where you're like, why don't we tell girls in high school when they, you know, start drinking like at parties or whatever. Even if they're not supposed to be like, hey, you better watch out because if you're in the middle of your cycle, you're going to experience this very differently and it could be scary or dangerous. You know what I mean? Like I just sort of feel like there's so much education when it comes to how these hormones that really regulate our overall health are impacting us socially. I mean emotionally, all of these other things.

Nina Coslov: They're so powerful. And that was the other, you know, there's this little, people tend to love her, but we call her the hormone lady. It's on the page[19] on Women Living Better that basically explains, you know, the hormonal changes. And it's this woman and we sort of mapped out all the places where estrogen and progesterone receptors are. And if you just look at it, I mean basically she's covered. She looks like she's a terrible case of, you know, two colored chicken pox and you know, if they're active in all of those areas and they're fluctuating and the interplay between them is important. It is no wonder that the experience of women, when hormones fluctuate, is so broad. And they impact so many things, so many things. Our sleep cycles, I mean we're just, we don't know, but it's vast. It's really complex.

Emily: Yeah. And I think just to reiterate what you said earlier, you know, a lot of those, a lot of the symptoms like heavy flow, disruptive sleep, mood changes, night sweats, sore breasts, headaches, weight gain, cramps like low libido,[20] painful sex, like those can all be symptoms of other serious things. And so I think it is really important that people don't just assume that this is some sort of, you know, premenopausal hormonal change that they make sure that they do talk to a doctor about it. But I think the work you're doing is so important for saying like, Hey, if your doctor says like, yeah, that's, you know, you don't have endometrial cancer or something, like, you're fine, you may not be fine. It may be that it is this hormonal change, but just to rule out the big stuff.

Nina Coslov: Absolutely. And heavy flow is probably, of those symptoms you just named, the one that is most important to check out. For just that reason. Because there can be other, you know, more serious causes. And on every symptoms page on the site, we say that. Anything

[19] https://womenlivingbetter.org/hormonal-changes/
[20] https://www.webmd.com/men/features/revving-up-low-libido

that new arises, I think it's important to talk to a healthcare provider. But in total, if a lot of these are arising at the same time, you can feel better that they could be tied to the hormonal changes if you're in this age band. And that it's earlier. I mean, that is the other message that it's so surprising when these arise in your early forties and then you know, that was sort of the message that we've been putting out there early forties, early forties. And then I get women who are just mad because they were in their late thirties and so it's a range and everybody's unique. And really, I think that's what makes this hard to study and hard for healthcare providers to help patients with. Because the range of ages and the ranges of experiences is so broad.

Emily: We're going to go back to Nina in just a little bit, but we wanted to talk to Nancy Woods who Nina references as somebody that she's collaborating with on this data collection. And Nancy Woods is somebody who is sort of a pioneer in women's health. She has been researching women's bodies since the 1970s which may not sound like that long, but actually given the sort of history of women's health, she is probably one of the leading experts in the field and she has become really interested in menopause and in these hormonal changes that happen to women. And she's the one who sort of has come up with this idea that we need to codify these stages. And the reason for that is because if you go to the doctor, they're going to want to classify you in different ways and they can only do that based on sort of known information or general standards. And Nancy Woods is the one who sort of has been pushing that forward. So it's really interesting is that this collaboration has now brought about this idea that maybe these hormonal changes are happening before periods change, which is a totally new way of thinking about entering into this sort of perimenopause phase.

Nancy Woods: My name is Nancy Woods. I have been involved in studying women's health since the early 1970s my initial preparation was in nursing. Then went on to earn a PhD in epidemiology.[21] Nina has been doing some really, I think really great work with her website. And as a consequence of hearing about women's experiences, has really been able to identify that she's hearing from women who aren't experiencing major differences in the length of their menses. So the, you know, the staging indicator for early menopausal transition is having a difference of seven days or more in one cycle to the next, so that level of irregularity. She is hearing from women who are having more subtle changes in their menstrual cycles. So they may be experiencing shorter cycles or less flow. And what is happening is that women are talking about the symptoms, they're experiencing. Hot flashes, but sleep symptoms and anxiety seem to be particularly an issue for them. She has really been seeking out what we know from research about this period called the late reproductive stage. And that was actually some of the work[22] that Ellen Mitchell[23] did and published back in 2000 before SWAN.[24] So what we're attempting to do is to look through published studies to see what has, what kind of research has

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[21] https://www.cdc.gov/careerpaths/k12teacherroadmap/epidemiology.html
[22] http://grantome.com/grant/NIH/R01-NR004141-09
[23] https://www.ourbodiesourselves.org/publications/our-bodies-ourselves-2011/contributors/ellen-sullivan-mitchell/
[24] https://www.swanstudy.org/

been done about this late reproductive stage? What I'm finding is that in many research reports, this stage, the late reproductive stage, is often viewed as a control condition for what happens during the menopausal transition and yet it's a time of probably endocrine changes where there are periods of increasing levels of estrogen as well as periods of decreasing levels of estrogen intermingle and the irregularity of estrogen levels may be responsible for some of the symptoms women are are experiencing. The problem that Nina is documenting is that when women then seek health care, clinicians who have been exposed to the straw staging, reproductive aging schema are often told, well, you know, your periods are still pretty regular so we don't think it's menopause. And yet it may very well be this change in reproductive physiology that is responsible for the women's symptoms. So they end up feeling invalidated and not really being certain what's responsible for their symptoms and may not be very satisfied with their health care as a result. We're attempting to see if we can put together a picture based on what has been published in the research literature. Going back now and looking at studies that have already been done where this late reproductive stage is used as either a baseline condition or a control condition, with an eye towards identifying whether there are some changes that are occurring that have been described, but that we've just not noticed because we've taken this period of time as not part of the menopausal transition but sort of as the baseline. Does that make sense?

Emily: Yeah, no it totally makes sense. And then it makes me curious about whether, you know girls are getting their periods younger and younger. And some people blame that on obesity, other people blame it on like environmental factors or you know, just hormonal shifts for whatever reason. Are Women going through this late reproductive stage earlier? Cause I would imagine that would be like a double whammy when you go to the doctor and the doctor doesn't, you know, isn't, you're not even on the radar as like this could be a late reproductive issue.

Nancy Woods: I don't think we can answer that. And the reason I say that is I don't think that some of the studies of menopause have largely focused on recruiting women, you know, who would go through the menopausal transition, meaning the early in the late menopausal transition stages and then experienced their final menses. And in order to do that, SWAN for example, which is the largest American study, recruited women who were between 42 and 52. Very few studies, ours, The Seattle Midlife Study,[25] benefited because we recruited women who were between 35 and 55. We had a much younger age range than most of the studies. So Ellen Mitchell and I are now going back through our data about the late reproductive stage to see if we can glean any further information that would be helpful to women about what typical experiences are during this stage.

Emily: Well, there's still so much about the late reproductive phase that doesn't seem, well known or well studied yet, although clearly there's interest. Once you enter into this sort of perimenopause phase, which is the next one on the ladder, then I think you start presenting a lot more symptoms and there is more sort of treatment and care and awareness of oh wait,

[25] https://womensmidlifehealthjournal.biomedcentral.com/articles/10.1186/s40695-016-0019-x

something is happening to my body that's not normal. And our next guest is a doctor who's been an ob-gyn for 40 plus years and is an expert on all of these sort of, not just symptoms, but also underlying like why is this happening kind of stuff.

Marcie R.: My name is Marcie Richardson[26] and I'm an obstetrician gynecologist.[27] I've been taking care of women across the lifespan for 40 years. Perimenopause is a term that's been used pretty inprecisely for quite a while and it refers to the time in a woman's life when her hormones start to be more erotic prior to menopause, which is the final menstrual period. That can start as early as eight years prior to the final menstrual period and is really quite variable, but I think the thing that's important to realize is that everybody is different. Menopause, it isn't a tapering off necessarily. It's sort of a sputtering. So sometimes women have big estrogen surges that makes their breast tender, that makes their fibroids[28] grow and then they'll have a very heavy period and then the estrogen levels will fall off and she'll have, a woman will have hot flashes for three or four months and then the estrogen levels will go up, hot flashes will go away. This can be very unsettling to those of us who've gotten used to the kind of regularity of are hormonal ups and downs when we're having regular periods. The symptomatology is hard to study, but some of the additional symptoms that women complain of are headaches, sleep disruption, mood changes, irregular and heavy periods. Those can be pretty annoying.

Emily: Can you talk to me a little bit about those specifically? I think they're called the vasomotor symptoms[29] and how they're is treatment, like SSRI[30] is and other things that seem to be helpful. I mean that's interesting because SSRI's are usually used for depression and anxiety, right?

Marcie R.: Well so vasomotor symptoms we don't totally understand the physiology, but it is what we think of it now is a narrowing of a woman's thermo neutral zone. Now what that means is our body is designed to keep us at a stable temperature somewhere between 98 and 99. And if we get over heated, then we go into heat dissipate mode, which is sweating and vasodilation,[31] our blood vessels dilate, we turn red if we're inclined to do that. And if we get too cold we'll start shivering because that's how the body generates heat. So women who are having hot flashes, their body goes into heat dissipation mode early at a lower temperature. So if somebody who's inclined to hot flashes has a cup of tea or has a glass of alcohol or puts their coat on to go out the door and then start has to look for their keys and gets agitated because they can't find their keys. They'll go into heat dissipate mode and have a hot flash. Not all women have such specific triggers, but you can imagine if you're getting these at night, you're sweating and you're awake, being woken up six times a night. Or for that matter, if you're a teacher and standing up in front of a classroom of students having these sort of symptoms is pretty disruptive. Now as far as treatments are concerned, sort of randomly people figured out

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[26] https://www.atriushealth.org/clinicians/martha-richardson-4475
[27] https://www.healthline.com/health/what-is-an-ob-gyn
[28] https://www.webmd.com/women/guide/what-are-fibrocystic-breast-changes#1
[29] https://www.medicalnewstoday.com/articles/317801.php
[30] https://www.mayoclinic.org/diseases-conditions/depression/in-depth/ssris/art-20044825
[31] https://www.healthline.com/health/vasodilation

that some of the antidepressants seem to help with hot flashes. Interestingly enough, some of them will also make them worse and it's a little bit variable. I mean, there was an interesting study[32] with Sertraline[33] that showed that some women, it made their hot flashes better and some women, it made their hot flashes worse. It does appear that particularly Paroxetine[34] and then Venlafaxine[35] help with hospital flashes 60-65% of the time.

Emily: Why does that then go away after menopause? I mean, I understand maybe it doesn't go away for everybody, but the majority of women stop experiencing night sweats and hot flashes post-menopause.

Marcie R.: Yeah, I mean about, in one study[36] from Sweden, about 10% of women over 70 were still having hot flashes. The newer data suggests they last for eight or more years, but we don't know, I mean we don't know.

Emily:  But that would be interesting if this sort of like thermo regulator, I'm not going to say it right. However you called it, you know, sort of becomes more sensitive and then it kind of recalibrates and goes back to be normal.

Marcie R.: Yeah, I mean it's sort of seems like that's what happens for some women. Yeah. I mean for most women.

Emily: And then there was also a drug that I saw, it hasn't been FDA[37] approved yet. Gaba...

Marcie R.: Oh Gabapentin.[38] That's a drug that's used for, it's actually a seizure medicine. It's also used for nerve pain and it actually helps with hot flashes in some women. It's a little bit sedating, so I tend to prescribe it for women who are having trouble sleeping. There are also certain anti, there's an antihypertensive[39] called Clonidine,[40] which helps with hot flashes in some women. And this all has, probably has to do with a sympathetic nervous system, which has to do with our flight or flight phenomenon.[41] But again, it's not fully understood. There's also a new drug that's being investigated that affects the brain that affects the pituitary[42] and hypothalamic hormones[43] in the brain that may turn out to be good for hot flashes.

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[32] https://www.ncbi.nlm.nih.gov/pubmed/16837878
[33] https://www.drugs.com/sertraline.html
[34] https://www.drugs.com/paroxetine.html
[35] https://www.drugs.com/venlafaxine.html
[36] https://www.ncbi.nlm.nih.gov/pubmed/23514136
[37] https://www.fda.gov/
[38] https://www.drugs.com/gabapentin.html
[39] https://www.rxlist.com/script/main/art.asp?articlekey=2284
[40] https://www.drugs.com/clonidine.html
[41] https://www.verywellmind.com/what-is-the-fight-or-flight-response-2795194
[42] https://www.merckmanuals.com/home/hormonal-and-metabolic-disorders/pituitary-gland-disorders/overview-of-the-pituitary-gland
[43] http://www.vivo.colostate.edu/hbooks/pathphys/endocrine/hypopit/overview.html

Emily: Well, that's interesting too, right? Because that's where all the milk production interaction happens, right? Those are basically alternatives for people who maybe don't want to go on estrogen or hormone replacement therapy,[44] as a way of treating other symptoms that the estrogen might help with, but that if they're, if somebody were say, reluctant to do the estrogen or the hormone replacement, those are ways of treating specific symptoms that an individual patient can talk about what their doctor.

Marcie R.: Right. Or their nurse practitioner.

Emily: Yeah. Okay. So are there other things that you think are important for us to touch on? In terms of perimenopause and menopause or things that are misunderstood? I loved your roundup of epidemiology. I think that's really important for people to understand that these, like population wide studies are often inconclusive and they're suggestive, but that further research is often needed in a clinical trial, ideally doubly blind and randomized so that you actually can control the variables and test for what you think is the finding.

Marcie R.: And it's difficult to do that in a conclusive way, especially when you're dealing with things like mood. The important thing to know about menopause is that it's something that everybody goes through and that, you know, for some people it's really not a problem. It just happens. For some people for whom it's a difficult, the perimenopause is difficult, will feel a lot better and more even once they've gone through menopause and it's very, you know, it's kind of nice not to have periods and kind of nice not to go through the emotional ups and downs associated with ovulation. I think that it's also an important opportunity for women to think through where they are in their life. You know, it's a opportunity to realize that you've probably lived half your life and, but you've got a half ahead of you.

Emily: I love how Marcie thinks of menopause as a sort of a time for re-invention or re-evaluation. So much of what we sort of read or through sort of western culture, we think about women as being vessels for babies and once you're done having babies, like what's your sort of self worth? But now women are living almost as long without periods as they lived with periods. And so thinking about that as an opportunity to reframe, what do you want to do for the next half of your life? Especially next half of your life without these hormonal swings. Like that sounds pretty positive. I realized that I needed to go back to Nina and talk to her again about the surveys because there was so much coming out of the work that she's doing and this collaboration between these three women that I wanted to have a better understanding of her sort of methodology and where this is all going for her. So can you talk to me a little bit about the survey[45] you created and how you sent it out to friends?

Nina Coslov: The initial survey? Yeah.

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[44] https://medlineplus.gov/hormonereplacementtherapy.html
[45] https://womenlivingbetter.org/perimenopause-survey/

Emily: Yeah.

Nina Coslov: I have so many surveys going on. As I said, this started because a good friend and I had sort of parallel experiences going on, slightly different symptoms and different providers. But as we sort of put our toe in the water and started talking to other women and doing a little research online we were like, we think this is a thing, but before we commit a lot of time to it, let's just create a survey. The first survey was very broad and we literally just wanted to understand women's experience with symptoms and menopause and perimenopause. So it went out, we said any woman over, I forget if it was like 30 or 35 it was a Survey Monkey[46] home cooks study, and we sent it just to kind of women in our networks and said, you know, send this on and if you or someone you know might be interested in sharing their experience. And it was a pretty long survey and in three and a half weeks we had over 400 respondents. And so many of them had taken advantage of the comment boxes and we knew we had hit a nerve because it was amazing. I mean we sort of first asked them what their current cycles were like. And then we also said if you're within five years of your last period of menopause and if you're way out, I mean we had women in their seventies and eighties and we asked them different questions about what do you wish you would've known? What made it easier? What things were helpful to you? What things were surprises? And it was just, it set us off onto this project because we knew that there were so many women with experiences that needed to be heard and so much more to be learned.

Emily: And so that sort of started this whole project. Is that right? The Women Living Better?

Nina Coslov: Yup.

Emily: And then can you talk a little bit about like how that has evolved and you know, where you see it going?

Nina Coslov: Yeah. So I'm really interested in data collection because I think that ultimately understanding this better is really going to be the way that we change it. And I think, you know, and it's a tricky thing because the menopause transition is a normal, healthy phase of life. And so I think in terms of research dollars and funding and it's, you know, it's probably going to be more difficult to make that happen. But on the other hand, I see it as such an inflection point in women's lives. Like if women saw this as an inflection point and said, all right, this is the beginning of the second half of my life, not in any kind of doomsday away, but if I make changes now to my lifestyle, like if I start focusing a little more on sleep and what I eat and whether you're motivated by a better night's sleep or avoiding weight gain, all of those same healthy habits, I just wonder what they could be doing for, you know, the rates of all of the chronic diseases that before women in the second half of their lives. But back to your question about Women Living Better and data collection. You know, I sort of think of what I want to be doing in

[46] https://www.surveymonkey.com/

kind of three workflows if you will, or three buckets, which is, one is Women Living Better and continuing to educate women and create awareness, make women feel validated and normal. Normalizing what they're going through, staying up to date on what research is out there, sharing information. I continue, I do some of my own interviews. I realized that over, during this project, I had access to all these experts that other women didn't and they're these wonderful women. So I'm slowly doing some short interviews and putting them up on the site. So sharing that content. Well, some are Q and A, some are video. So keeping Women Living Better, you know, growing and reaching more and more women, I'd love to at some point get into, you know, different languages and more far reaching places where women probably have even less healthcare access. So that's Women Living Better. In the second part of how I think about what I want to do is the work that I'm doing with Nancy Woods and Marcie Richardson, which is to raise awareness of the lack of research and the little bit of research that's out there, that symptoms do happen while periods are regular and try to spur more research, try to educate, get that information to healthcare providers. So that women, when they do seek out medical attention or have questions, that they feel validated and that the healthcare providers feel more equipped and able to have a conversation to help them. And then I have this third thing that I maybe it's think and dream about, but that a really massive data collection could change this. And I have some stakes in the ground on that front, but it's very early days. But that to me, they're all kind of under the Women Living Better umbrella, but they're all really exciting and they all, I don't know which will become the front runner, but for now I'm pushing them all forward.

Emily: And do you have any sort of sense of what the progression of symptoms is? I mean, I don't know if there's enough data collected, but I feel like you are kind of on the forefront of this in terms of collecting the data and the idea that like we've all been told like, oh well when you don't have your period for a year, that's like when you've gone through menopause yet these other symptoms can start 10 years beforehand. Like they don't start with one and then another one is added in some sort of consecutive way. But I know that you have some data on like what the most common ones are or do you have any sense of anything like patterns like that?

Nina Coslov: Not really. I think it's too early to say that. And I really do think that the variability of women's experiences is, you know, probably the most salient piece of the way women go through it is how different it is. Not how similar it is. But I do believe, you know, in that massive data collection that we would see, I'm trying to think of a better word than archetypes, but that's what comes to mind. But that there are probably cohorts of women that go through similar to each other. And boy wouldn't it be great to be able to know which one you were in and you know, learn from others that went through in that way. So my guess is there are some patterns, I don't know enough now.

Emily: And there isn't any longitudinal study that looks at like women who develop Alzheimer's[47] experienced this kind of menopausal transition or. I mean because I feel like it's really interesting to think about how when estrogen plummets, how it affects like brain, bones, heart. I

[47] https://www.alz.org/alzheimers-dementia/what-is-alzheimers

mean you know, major things, right? But it doesn't seem like it happens to the same people. Like so the women who develop Alzheimer's are not necessarily the same ones who are developing congestive heart failure, right? But like these are actually things that estrogen interplays with. And it would be so fascinating.

Nina Coslov: I'm with you. I feel like we are going to look back in I don't know how many years, I hope it's sooner rather than later and be like, oh, this was the key to it all, you know, understanding hormones. And the other thing I'll say that is, it's actually where this project started is I think one of the limiting factors is, well there's two things. This is certainly more, is the more important than in terms of contributing, is the lack of agreement on, measuring hormones. So I think mainstream medicine will measure hormones when they do in serum. And you know, there are certainly a bunch of people that feel like saliva for kind of scientific, maybe uninteresting to this audience is, you know, is a better measure of hormones. But the problem with hormone measurement in any way that you take it and there's also urine and some people feel like that's, you know, because that's what gets excreted, so those are the metabolites.[48] But the truth of it is, is that hormones change so much within women within a day. I don't know enough to say within an hour, but they're all over the place. So unless a woman can track her own hormones sort of at the same time every day, I mean that will be the holy grail in terms of data, right? If you knew.

Emily: And that's like what they do with Cortisol,[49] right? I mean like you're supposed to get your Cortisol checked right in the morning and, or like throughout the day at different time periods. I feel like the saliva test is like,

Nina Coslov: And that's the one that's the one that is most, I think has the broadest acceptance of in saliva, which makes it easier for women to do at home and people talk about contaminants and all that. But I think that's also kind of both an inhibiting factor and something that could be really exciting to the future of all of these topics and the way that hormonal changes relate to all those diseases you mentioned and the paths to all those diseases. I brought this up earlier is I do think the terminology is tricky. You know, they use of the word menopause or perimenopause. And I was a little bit more of a stickler early in the project. And now I just try to, you know, I'm using the menopausal transition and I sort of am reserving perimenopause for irregularity and you know, I don't know how you feel about late reproductive, but it's not a very catchy, you know, hey, I'm in my late reproductive phase. I think it's important though because it's when I understand the significance of that terminology because you know, you can still get pregnant and actually the incidents of multiple births is higher because the ovaries often releasing multiple eggs. And so it's really important. And I think healthcare providers do a great job of this, of worrying about women's birth control method if they're not, you know, planning to have any more children in the late reproductive phase so.

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[48] https://www.sciencedirect.com/topics/medicine-and-dentistry/metabolite
[49] https://www.webmd.com/a-to-z-guides/what-is-cortisol

Emily: Yeah, I think my stigma is just that obviously reproduction is very important and something really special that women can do. But I'm so sick of everything in women's health being pegged to our reproductive systems rather than our overall systems. You know, I think it makes a lot of sense, like late reproduction, right? Like, or your late reproductive period as like the end of something. But I almost wish it was like called like the phoenix period or like some sort of like,

Nina Coslov: I'm with you. Let's come up with a term. I mean it needs one, right? It needs then this focus on the next phase, but it's not, when your periods are irregular, it starts sooner for women. And I think just acknowledging that and women being okay with this and it is what it is. And I, you know, someone else said to me, don't tell women in their early forties that they have anything to do with menopause. And it's kind of like, well, I don't know. I would have rather known. I was looking for someone to tell me this was hormonal. Don't worry about it. There's no major mental health issues coming. You're not sleeping because you're unhappy with your life. You know, this is the, so for me it was a relief to know it was tied to that. But there's definitely cultural components of this that are working against women's comfort with anything associated with aging.

Emily: Well yeah and I also think this idea of like your purpose is to make babies and then you're done, right?

Nina Coslov: Yup.

Emily: Whereas, like you were saying, you have this is a way of thinking of like, you've got half of your life has been lived and you've got another half to go. So this is a really great, like midway check up on what you want to do next.

Nina Coslov: Absolutely. It's exciting. I mean, a lot of these symptoms are not exciting, but I don't know, for me anyway, I feel like I can tolerate so much more knowing that it's normal. And I guess that's my main objective, is to the extent that other women might feel like that, knowing that their experience is shared and hearing that other women are going through it, that that might help.

Emily: Okay. I am sure there are women out there right now who are having a hot flash and like throwing something at their phone or computer, hearing us be so Pollyanna about how great menopause is. Is it time, you know, think about reinvention or refocus and I, so I don't want to for a second say that this doesn't sound like a very difficult period of life and we are going to dedicate all of next week to talking about treatment options, specifically looking at hormone replacement therapy, which there has been a lot of mixed messages about in the media. And is pretty confusing to try to understand. So we go back to some of the original data points, the original studies that were done. We look at why the information that was gathered was both, some of it was good and some of it had to be kind of thrown out and how frustrating that was for the medical community that was hoping to have some real answers for women. But we're also

going to talk a little bit about what hormone therapy is and who it's appropriate for and who maybe it's not. I am Emily Kumler and that was Empowered Health. Thanks for joining us. Don't forget to check out our website atempoweredhealthshow.com for all the show notes, links to everything that was mentioned in the episode, as well as a chance to sign up for our newsletter and get some extra fun tidbits. See you next week.