

A sunburst graphic with numerous thin, light gray lines radiating from a central point behind the text.

Healthy Moms Podcast

BY **Wellness Mama**[®]
simple answers for healthier families

Episode 147: Using Heart Rate Variability with
HeartMath to Stop Stress and Improve Nervous
System Health

Child: Welcome to my Mommy's podcast.

This podcast is brought to you by Vivos. This is something we recently invested in for our entire family and we are absolutely loving it and here is why. So, data shows that the nutrition we receive in utero determines our palate development and how narrow or open our airway and jaw structure are. So a narrow mouth, jaw and airway increase the chances of needing braces, of getting sleep apnea, breathing difficulties and much more. But it was pretty much assumed that your jaw structure was set in stone once you were born or for sure after the first couple of years of life. But Vivos has found that not only is this not true, but they created a non-invasive, non-surgical, easy way of widening the maxilla, the jaw and the airway. So for our kids, this means that they get to avoid the braces that my husband and I both had and for my husband, this means his sleep apnea has disappeared and he stopped snoring, which is a bonus for me. I'll be writing more about this soon but you can check them out, in the meantime, at wellnessmama.com/go/vivos

This podcast is brought to you by Good Culture. Good Culture makes amazing cottage cheese. I know, I know, not necessarily two words you would put in the same sentence on everyday speaking. But theirs is awesome, I promise, even if you don't love cottage cheese. Because I used to not. Basically, it's naturally fermented cottage cheese so it's free of gums, fillers and nasty additives and it's packed with probiotics. And because it's made naturally it doesn't have that weird mouth feel that a lot of cottage cheese has. So, I use it all the time in cooking and smoothies as a substitute for other types of cheese, or just a meal on the go. You can find it at Whole Foods and many other grocery stores and it comes in yogurt sized cups too, and those are perfect for meals. Check them out. It's Good Culture and they are available at many grocery stores.

Katie: Hello, and welcome to "The Healthy Moms Podcast." I am Katie from wellnessmama.com, and I am here today with Deborah Rozman. Dr. Deborah Rozman is a Behavioral Psychologist and President of HeartMath, which we're gonna talk a lot about today. It's super cool. She authored the bestselling book, "Meditation for Children" and also "Meditating with Children," and she founded the first school for holistic education in Northern California based on her books. With HeartMath, they provide scientifically validated tools, technologies, and training to help adults and children learn self-regulation skills to manage stress and enhance emotional well-being. We're gonna get into it in depth in this episode, but the short version is that HeartMath uses something called heart rate variability, which is a way to assess the state of the autonomic nervous system. It's super fascinating and really cutting-edge, and I can't wait to delve into it. Dr. Deborah, thank you for being here, and welcome.

Deborah: Thank you so much, Katie. I'm just delighted to be here with you and all the moms listening.

Katie: I can't wait to jump in, because what you do is so amazing and fascinating, and it helps with stress, which I feel like a lot of moms have, so I can't wait to get to all of that. But, first, I want to make sure we understand the terms going in. So to start, can you explain what heart rate variability is, because that may be a new term for a lot of people.

Deborah: Yes, I imagine it is. Well, it's the most incredible biometric for seeing and measuring our emotional state. Now, that may scare some people, because our emotional state is what's behind most of our stress and is also our well-being. So what heart rate variability is is a measurement of the beat-to-beat changes in heart rate. So when you go to the doctor, and he says your heart rate is whatever, 65 beats per minute, that's an average over a minute, but we can actually see that the heart rate is changing with every beat, maybe going from 60 to 70 to 80 down to 50. And it creates a pattern called the heart rate variability pattern or the heart rhythm pattern.

And so when you plot the changes in heart rate, you see the interaction of the parasympathetic and sympathetic nervous systems. The sympathetic speeds up, parasympathetic slows down. And when we're really relaxed, we have strong and a lot of parasympathetic. When we're really activated, either positively, emotionally, energetically, or stressed, negative emotions, the sympathetic nervous system is activated. So what heart variability is showing you is a window into all of this, and what HeartMath Institute research found is that when we're frustrated, impatient, angry, anxious, worried, all of those stressful emotions, that this heart rate variability pattern becomes really jagged, and erratic, and irregular, and the more frustrated we are, the more jagged and irregular it is. Kind of like an earthquake is what it looks like on the screen, and that mirrors what we feel inside.

Now, the good news is when we're feeling calm, emotionally poised, centered, grateful, loving, caring, compassionate, kind, the heart rate variability pattern becomes smooth and harmonious-looking, and it becomes a waveform that's a sine wave which is called a coherent waveform. And the research is also showing that the heart sends whatever pattern the HRV is showing to the brain and the brain responds. So if it's a stress pattern, the brain response with fight, or flight, or freeze, and if it's a harmonious calm or positive, uplifting pattern, the brain responds by synchronizing all our cortical function right to the frontal lobes, showing us a bigger picture, more awareness, more intuition. So positive emotions aren't just nice things to have, they activate our higher brain functions, and HRV feedback can help us learn how to do that more.

Katie: That's so fascinating. So, basically, our thoughts and emotions that we can now measure how they affect our body and our brain, but then I'm guessing with what you guys do the reverse is also true by, even if we're stressed, if we change our heart rate variability, we can actually reduce our stress. Does it work backwards like that as well?

Deborah: Yes, that is the good news. That's the hope. We can learn to actually better manage our emotions and our reactions and actually reset our whole habit of stress response as we learn to shift our heart rate variability pattern. It powers up our intentions to feel better and do better, and it gives us that leg-up to do so, because we're accessing the power of our hearts. And this is a huge breakthrough in stress research.

Katie: Yeah. I mean, it sounds like it's an amazing thing. And unlike...because there's a lot of different energy-type medicines or the spiritualities they claim to help with the emotions, and I think they help a lot of people, but some people are critical of that, because it seems a little bit like I hear the word "woo" a lot. And I love that with you guys this is a very scientifically backed, like you're using an EKG or a pulse wave recording, you're using, like, very common scientific tools to be able to measure heart rate variability but then also to teach the body how to improve that. So let's talk about that. How does that system, that part of the system work where you actually are able to teach the body, and the mind, and the heart how to get into a better rhythm?

Deborah: Great question. So I'll share a technique that everyone can do together in a moment that actually makes that shift and harnesses the heart rhythm into that smoother waveform that then signals a different signal to the brain, and we feel different. But the way it works, and this is only discovered in the 1990s, is that our physical heart is more than a blood pump. Actually, they discovered that it produces hormones and as much oxytocin as the brain does, the bonding hormone. The heart also has incited an intrinsic nervous system they called a little brain in the heart which has neurons, sensory neurons, that can sense, feel, learn, and remember. It also puts out 2.5 watts of power with every heartbeat. So think of your heart as a radio receiver and transmitter, so what we feel is actually being sent out on the EKG from our heart with every beat, and

that's how we pick up each other's vibes. But that's also a signal that's going to every cell in our body and our brain, affecting our health, our well-being, our nervous system, health, and function, so the heart is really a master coordinator and regulator, a lot of the functions that go on in the brain and body.

So by learning to connect with our heart and how to shift and connect with into a more coherent heart rhythm mode, we can actually begin to improve the health of our brain and body. And most people think all this happens in neural feedback or in the brain, but it's actually the heart that is driving a lot of the process. So we go right to the heart of the matter and the sayings from ancient traditions all over the world, listen to your heart, follow your heart, go deep to your heart, deep into your heart for an answer. These are not just metaphors. They really do activate all of these systems in the heart. And we can learn how to interact with it ourselves, and that's the hope for our stress response and changing all of that and improving our health and well-being in really a fairly short time.

Katie: That makes sense. So let's go through some of the specifics. I know from hearing from my listeners and readers that the majority of moms and as moms we definitely struggle with things like stress, and anxiety, and overwhelm, and depression, so I want to go through some of those one by one and have you kind of tell us, like, in those situations what's actually going on in the body and then how can we shift that, like you said, into more of a state of calm. Because I know that's a thing I hear very commonly among moms as we wish we could just keep our cool more, and be calm, and present, and not so stressed.

So let's start with stress. Like you already mentioned it a little bit, that we are in a more sympathetic dominant type state when we're under stress, but talk about what stress is doing in the body and then some remedies of how we can work to disarm that.

Deborah: Sure. Well, people may not realize, but every time we feel irritated, frustrated, anxious, worried, and for some of us that's kind of chronic, that we are releasing over 1400 biochemicals, from cortisol, to different hormones, to different chemicals in the body in order... The body does this to protect itself, because that stress response actually destabilizes a lot of our internal systems and prepares it for fight or flight, you've all heard of that, or another survival response, which is just freeze, we don't know what to do. And that is the body's survival mechanism, so the heart rhythm that is very disordered when we feel stressed signals that to the brain, and the brain goes into that mode and creates cortical shutdown, because it needs all of its energy to be able to protect us or to react in a way that we become habituated to. It could be an anxiety habit, an anger habit, a frustration habit, an impatience habit, and the more we do this, the more the neural circuits form a habit. And the amygdala, which is the emotional memory center of the brain, is actually looking for the pattern match from the heart to know what emotional memories to trigger, so it can trigger all the old histories and memories. That's how a stress response works. And we can feel trapped in it. You know, our thoughts then loop around, our emotions churn, and there's so much that people could feel stressful about nowadays in the world, not only about our kids, and our work, and finances, and relationships, but just what we read on the news. There's a stress epidemic going on, so people don't need to feel alone.

But this can lead as we develop the stress habits to more anxiety and anxiety imprint in the brain on eventually depression. Usually depression starts not just with sadness but with some worry, or some stress, or some overwhelm that has built. And so how do we interrupt this pattern? How do we interrupt this whole cycle and reboot that inner operating system, that internal heart-brain-nervous-system computer? That's the hope, and that's what HeartMath has been researching for years and why we called it HeartMath in developing techniques, and tools, and technology to help people do exactly that.

Katie: That's really amazing, and it makes... I mean, as you're saying it, it makes perfect sense, and I'm curious how it links in, because some of those things are kind of the claimed benefits that they would say from learning how to relax, for instance. Is there a connection with just, like, learning how to relax or meditate versus just the HeartMath, or there's similarities and differences there?

Deborah: Good question. Well, what's interesting is the relaxation response is activating our parasympathetic. And that helps to balance out the sympathetic overdrive we can get in through our anxiety or stressful emotions. But relaxation itself doesn't necessarily give us access to our bigger picture, to our frontal lobes, to our higher cognitive capacities. Whereas, with the heart rate variability is that a low heart rate, and there's strong parasympathetic, and the relaxation response it's still not necessarily a coherent waveform. It's a more balanced waveform, but to be able to get into this heart rate variability coherence, that's when the sympathetic nervous system and the parasympathetic nervous system synchronize. And that puts us in a flow state, and that's a high-performing state. It's very present, awake, aware. It's like a where you want to get to in meditation.

Meditation is not just relaxation. It's where we want to get to, where we're present, and we're not as hooked in by the thoughts that float by in our minds, and we can see a bigger picture, and we can connect more with our heart's intuitive guidance. We get "aha's" and insights. That's why people meditate. But usually, it takes many years to learn how to calm the mind and get into a place where we have that presence, where we're in that coherence. Now, with this heart rate variability biofeedback, we can see and train ourselves to match that coherent heart rhythm where our parasympathetic and sympathetic nervous systems are trained, and it's not just relaxation, because moms, people that work...we work with law enforcement, firefighters, everybody needs and wants to be present and available and have all their wits about them and relaxed at the same time.

And so that poised state is what we can train ourselves into, and that's what HeartMath's technology and techniques helps us do, is get into that coherent rhythm and get that channel between the heart and the higher brain opened up. And so it's different than relaxation, but it's where we all find that backflow.

Katie: Very cool. And I'm a geek at heart, so I'd love to hear you, even just if it's like a surface level explanation, kind of explain how the system works. So you mentioned the word biofeedback, so can you explain how on this device what you're hooked up to, what it's measuring, and then what feedback it's giving back to you?

Deborah: Sure. Well, we have three different heart rate variability biofeedback devices. The one that I'm gonna talk about right now is called the Inner Balance, because it's that free app at the Apple store or the Google Play Store for Android or for iOS, Apple smartphones and tablets, either one. And this is a Bluetooth sensor, and we also have a wired sensor for Apple products if people prefer that, and it clips right onto your shirt, and then it has a little ear clip that clips on your ear lobe, which is a wonderful place to get very accurate heart rate information. And so what that's doing is it's taking your pulse, then the algorithm is analyzing your heart rate, and then that other part two of the algorithm is analyzing how much synchronization or coherence is in your heart rate variability pattern, so it's going from pulse to heart rate to heart rate variability to coherence and analysis.

And then on the app screen, it shows you exactly what's going on. So you see in real time your heart rate variability pattern, and then it gives you prompts, and there's little guides that train you on how to go to the screen that has a rhythm pacer or a breathing pacer where you learn our coherence technique, and you focus

here on the heart, and you breathe at a certain rhythm. And as you do that heart-focused breathing, you watch your heart rate variability change, and then as you add a positive attitude and you breathe that or a feeling of gratitude for something in your life, it doesn't matter what, or a feeling of genuine love that's not all colored by problems, or a feeling of care or compassion for yourself or your child or kindness, this means you'll activate a positive attitude or feeling. You'll see immediately the heart rate variability pattern going to that smooth coherent waveform. It feels good to see it. And then there was a light that changes from red, which is no coherence, to blue, which is you're getting there, medium coherence, to green, which is high coherence.

And then it helps with prompts to try to stay in medium or high coherence as long as you can for three minutes or longer. It feels good, it's self-soothing, so you like staying there longer, and then it gives you rewards and points for how long you've stayed in there and how much coherence you've had and encourages you to keep practicing. And what we found is people do this just 5 minutes a day, maybe 10 minutes a couple of times, you know, twice a day 5 minutes. They learn the technique that they can then use even when they're not hooked to the heart rhythm feedback that they can use it anytime, you know, prepare for a potentially stressful issue or reboot after one to just bring more coherence into their whole nervous system, the whole heart-brain communication. And the amygdala, that little emotional memory center I talked about, it's scanning for the heart rhythm pattern, because the core cells of the amygdala are synchronized to our heartbeat. You can't fool it.

So whatever you're feeling, that's gonna be triggered in the emotional memory center, and as we move into this more smooth coherent waveform, the amygdala sees the body's in harmony, and it will then bring up more positive attitudes. It will search for the memories of the times when we felt more caring or loving or someone was caring for us. It opens our heart in other words. And then we have new perceptions in our brain-mind. So that's how it works, but the technology, the Inner Balance with the sensor is guiding you to this and giving you constant feedback so you can see. Now, usually research and hundreds of studies have shown that if people do this for six weeks or so, they start to program a new neural habit in the brain and nervous system, so you naturally have more heart coherence happening, whether you're thinking about it or not.

It gives you that leg-up in being able to manage stress, release anxiety, release depression, improve some of that or guide you intuitively to the next steps of what you need to do. It might be that you do need some extra help or medication, or it might tell you you need to go clear a pattern or a problem with your husband or something, but you start to get clarity, which is what we all want.

Katie: That's really astounding, that you're having results so quickly. So obviously, just a few minutes a day and then even just six weeks, that's, like, a dramatically short amount of time to see those kind of effects. And I think especially, like we were talking about with moms, we don't have a ton of extra time, so I love that it's a very quick thing that you can work in. So we talked about the stress and the overwhelm, which are definite things with moms. But the other thing that I hear a lot from moms is it touches a ton of self-judgment and guilt, like the mom guilt, there are so many memes about it, but it's a very real thing, and, like, moms are incredibly hard on themselves, and I'll admit that I'm very much that way, too. So I'd love to hear how that ties in and if there's kind of any tools that moms can use to get past that as well.

Deborah: That's a really, really important question, Katie. So when we start to feel stressed, it starts to loop back on us. The energy in the nervous system, the hearts starts. We can even feel palpitations in the heart or panic attacks, it leads to, because the nervous system is suddenly, "Something's out of balance." When that happens, we can start to feel bad about ourselves. Or we said something we later regret, and then we can go

into that negative inverted loop, thought loop, of self-critical, self-judgmental, and that can become a pattern. You know, that or we can blame somebody else outside ourselves, but that whole loop, whether it's judging or blaming someone else or life or judging and blaming ourselves, creates tremendous incoherence to that heart rhythm. The heart signals that to the brain to go in survival mode, and we never get the clarity we want, because our higher cognitive functions are shut down in that survival mode. So we stay stuck in that.

And so how do we get out of it? It's the same thing as you use the rebooting HeartMath technique and the technology, you start to invert that whole loop the other direction, and it starts to lift your vibration above all that so you start to see, "What a minute, you know, that wasn't even real," or, "I don't need to be stuck there as much." Now, it takes practice. If we have a strong neural habit or neural imprint over time of anxiety, or self-deprecation, or self-judgment, or the things we've been talking about, it is gonna take you six to nine weeks of this practice to start reversing that and improve. But we have seen, and if people go to the heartmath.com website and scroll down the homepage, now see pre-imposed assessments of nearly 12,000 people, and these have been people in organizations, in hospital systems, nurses, executives, moms, ordinary people that have used this process, the HeartMath system. And these are people...we just took the graphs of the people who said that they had these symptoms often to always, and what we saw in that short period of time, a 40% reduction in anxiety, 30% improvement in sleep, 60% reduction in depression, and that linked to the stress symptoms of improvements in digestion, gastrointestinal problems, headaches, body aches, because as these anxiety and stress habits build up, they play out in health problems. And as you shift and reboot that, then those problems get lessened or improved as well. So it's a whole cascading cycle, and we want to reverse the cascade, and the power to do that lies in the power of your heart.

Katie: It's amazing. That's so fascinating. And I'm guessing there's got to be a connection, because it just seems logical if you can improve your heart rate variability it would also impact your sleep. But I'm curious if there's any specific connection with improved sleep, because that's another thing I get so many questions about, and for those who don't sleep well, it's a huge problem in their life. So I'm curious if it impacts sleep and, if so, how.

Deborah: Absolutely. In fact, we have an eBook which we have people link to your link to get our heart rate variability and our balance product. They can get that eBook, too, and it is called the "HeartMath Solution to Better Sleep." It gives a little of the research between the circadian rhythms which regulate the sleep rhythm and the heart rhythm, the heart rate variability. So when we're destabilizing, we're in these incoherent heart rhythms all day long, it is affecting our sleep rhythms as well as our metabolic rhythms. So we can have more disrupted sleep, we can't turn our mind off when we try to go to sleep, we get very restless sleep, and the same thing, we may have imbalanced metabolic rhythm, so we may emotionally eat or just stress eating. It just screws up our bodies' rhythms, and so when you reset the heart rhythm, which is the master rhythm, all the other rhythms in the body respond to the heart rhythm, then you're starting to bring all those rhythms back into balance. So we call that book, "Resetting the Body's Rhythms," the subtitle.

And that really helps us improve sleep. It doesn't mean you're suddenly gonna sleep like a baby forever more, because there's a lot of other factors, what you eat, what time you go to bed, how much mental stimulation you have before you sleep. But what a lot of people and what this book...they have instructions for people to use the Inner Balance technology that I was telling you about for about 5 minutes, 10 minutes before they go to sleep to get into that coherent heart rhythm. And that helps them sleep in a deeper sleep, because deep non-REM sleep, your body naturally goes into that coherent heart rhythm, so if you practice getting there before you go to sleep, it helps you go there quicker, and sleep more deeply, and wake up more refreshed.

Katie: That's so logical, and I'm glad you mentioned that, the link, if anyone is wondering, it's wellnessmama.com/go/heartmath, and that will have where you can get the eBook and also the product that I will personally be using and trying, so you guys can go there to get both of those.

This podcast is brought to you by Vivos. This is something we recently invested in for our entire family and we are absolutely loving it and here is why. So, data shows that the nutrition we receive in utero determines our palate development and how narrow or open our airway and jaw structure are. So a narrow mouth, jaw and airway increase the chances of needing braces, of getting sleep apnea, breathing difficulties and much more. But it was pretty much assumed that your jaw structure was set in stone once you were born or for sure after the first couple of years of life. But Vivos has found that not only is this not true, but they created a non-invasive, non-surgical, easy way of widening the maxilla, the jaw and the airway. So for our kids, this means that they get to avoid the braces that my husband and I both had and for my husband, this means his sleep apnea has disappeared and he stopped snoring, which is a bonus for me. I'll be writing more about this soon but you can check them out, in the meantime, at wellnessmama.com/go/vivos

This podcast is brought to you by Good Culture. Good Culture makes amazing cottage cheese. I know, I know, not necessarily two words you would put in the same sentence on everyday speaking. But theirs is awesome, I promise, even if you don't love cottage cheese. Because I used to not. Basically, it's naturally fermented cottage cheese so it's free of gums, fillers and nasty additives and it's packed with probiotics. And because it's made naturally it doesn't have that weird mouth feel that a lot of cottage cheese has. So, I use it all the time in cooking and smoothies as a substitute for other types of cheese, or just a meal on the go. You can find it at Whole Foods and many other grocery stores and it comes in yogurt sized cups too, and those are perfect for meals. Check them out. It's Good Culture and they are available at many grocery stores.

Katie: And I know that we're gonna get questions, because, like, this is so amazing, the things that it can do, and the question I always get are, "Can you do it while you're pregnant and nursing?" and, "Can children do it?" So I want to delve into that. Like, is there anyone it's contraindicated for, first and foremost?

Deborah: Not at all. In fact, we work with a lot of nurses who work in the neonatal units. We are in hundreds of hospitals teaching nurses' techniques and technology who are using it with their patients, and they use it for themselves, because it's such a stressful profession, and all the Kaiser system has hundreds of nurse leaders who are certified as HeartMath trainers. So the credibility is way there, so now when you use this when you're pregnant, our research is showing that it helps you tune into your baby's rhythms and helps synchronize your and your child's heart rhythms as you love your baby, or when the child is born and you're nursing or feeding your child, the baby's heart rhythm is naturally synced to the mother's heart rhythm. So if you're stressed, guess what? It's going to stress your baby. We all know this, but now we have the window to see it, the research. So if you use this quick coherence technique or the technology to just get into that smooth heart rhythm state, it's very easy to do with the feedback, the biofeedback. As you're nursing or taking care of your child, your baby is gonna synchronize to that and have smooth heart rhythms and feel your love and care. And, in fact, we've done studies where we see that the mother's heart rhythm pattern actually shows up in the same pattern in the baby's brainwaves. So we are seriously interconnected, and we are affecting our children, and our spouses, and each other's all the time just by what we're broadcasting in our HRV pattern.

Katie: I love that there's finally something health related that I can say yes, not only is it safe for pregnant and nursing moms, it's recommended for pregnant and nursing moms.

Deborah: You're right. It's so important that the mother and child be in a loving, poised, calm state. It's not just relaxation. This coherent state is this flow state, really is optimal for your baby, not for your child. I mean, we have gone over 1000 schools with teachers learning this, and I can't tell you how many teachers have said when they get into heart rhythm coherence in front of the classroom that's really noisy that they all of a sudden see the whole classroom calm down. It's like it's contagious.

Katie: Wow, that's really cool, and I know I'm definitely a very Type A personality, and I tend to be on the very energetic end of things. I'm thinking already this is gonna be something probably very helpful for me, because I've never been spectacular at meditating, because it was always like this moving target that I can never quite hit really well. So I love that this is a very, like, changeable, empirical thing that I can see if I'm doing it right or not. And you mentioned schools, so I want to go deeper on this. So I'm thinking of my 4-year-old, who can get so worked up and so stressed out about something and be just in a complete state of chaos. And I'm wondering what age can you start really using this with children and what are some of the ways that you are using this with children.

Deborah: Sure. Well, the techniques are what make the technology work, the HeartMath technique, so even if you have children who are too young to sit still for a minute to see what's happening in their pulse wave and their HRV, they can learn the techniques, and we have made simple techniques for what we call Early HeartSmarts. And this has been researched in Head Start schools and preschools, and it's part of the social-emotional learning curriculum in a number of preschools. And they have found that as children learn to emotionally manage themselves with heart coherence that they are more prepared to learn. When they go to school, they do better academically as well.

So we have taught children and have a program for preschool children as well as children all the way right through university level. We have Early HeartSmarts, HeartSmarts, then for junior and senior high we have something called Smart Brain Wise Heart, which is a whole digital learning program. I've explained some of the science why this works, and then we have a book called the "Transforming Stress" for teens, because they have very particular types of stresses, and we have "The College De-Stress Handbook," so we have applied this intervention and techniques and methods in language for every age level. And I have seen 4-year-olds use the Inner Balance, not all will, and getting the green, which is the high coherence state, right away and really love it and want to go back to it.

And I've seen others, you know, especially children with ADHD or developmental difficulties, you know, find it harder to focus, and then children on the autism spectrum love it, because they are often very focused on looking at that kind of digital feedback. They get super focused on it, and then they feel more connected with their emotions and their heart. So we do a lot of work with school psychologists as well on the best applications, but, yes, with your 4-year-old, you can use it yourself, and he or she will start to notice a change in your energy, and they will respond to that consciously or unconsciously. And then if you share it with them, or the technique you're using or, like, the Shift and Shine technique, which is available, it's a free resource on the website, you can do that together, and as they practice with you, you become more in sync with them, more intuitive of their needs, as well as more managed, and they learn how to start managing their emotions, because a lot of kids can get into high coherence really quick. They're very connected with their hearts, with loving, and caring, and empathy, and compassion, but they get out of it really quick, because they're, like, flapping in the wind emotionally, because no one has taught them any emotional self-regulation skills. And that's what we're doing.

We're doing that, and I really deeply believe children need to learn this as a young age. It'll last them through their lifetime, and, you know, that's... You mentioned my earlier books, the bestselling "Meditating with Children." I did that and then wrote that book in the '70s as part of my Ph.D. thesis. So when I started the school for holistic education, I really wanted children to be able to learn meditation at an early age so they could avoid some of the mistakes I made through rash judgment and impulsive behaviors, and what I've learned now with HeartMath, because I follow this path of my whole life, is that you don't need to go away to meditate. Now that we have a window into the heart, you can achieve those results really, really a lot quicker or mindfulness, whatever practices. The heart rhythm pattern going into synchronization helps to calm the mind and helps us get more objective quicker.

Katie: Yeah, I feel like kids would love that, because it's almost like kind of a video game of yourself, trying to figure out if you can beat the level kind of to improve it. I would guess kids, like anything, they respond faster than we do, because they've got less baggage and everything else to slow them down. That's really cool. So in, for instance, a family setting, or I'm thinking for myself, we homeschool. Using this as part of our school, what would be the best way to implement that for more than one person? Can that app be used with more than one person, or are there other ways to do that?

Deborah: Well, what most schools get is our emWave Pro, and that's a desktop computer-based version rather than smartphone. What's cool about that, it's multi-user, so they get it for their computer labs, and everybody can keep track of their own progress. So all of the technologies we have, Inner Balance or emWave, it stores your data, and so it can track your improvement. You can write journals. You can do a lot of interaction with it. The emWave Pro not only is multiuser, but it has games in it that operate on your coherence level. So one game is all black and white, nature scene, and you have three minutes to see how much color you can fill in. And children love it, you know, and the very end you have a unicorn, and a rabbit, and a pony, and have all sorts of fun things when you're filling in flowers and colors.

And so there's a rainbow game, try and get a rainbow into a pot of gold, and how long does that take you. So it's a whole training device, but the rainbow recedes if you lose coherence and advances as you keep coherence. So it trains children and adults, so that's the one I recommend for a classroom or for a family with a lot of kids that wants to keep track of everybody's progress. And all of them connect to what's called the HeartCloud, which gives rewards. So, like, if you practice so many minutes, you'll get a trophy, things like that over time.

Katie: That's really cool, and because it's so fast, that would be a fun thing to integrate in the family and even, like, get a little competitive with. I don't know if that's a good thing to do. It's my default. Like, get a little competitive with who can relax more and get better heart rate variability. How does breathing play into this, because I know you've mentioned that a few times? Like, is that one of the tools that's used to influence heart rate variability, or how does that come into play?

Deborah: Yes. Well, your heart rate and your breathing rhythm are connected, so it's really important. The first step of all the HeartMath techniques is shifting focus of attention to the area of the heart, and then it's pretending your breath is blowing in through the area of the heart and out through the area of the heart, breathing a little more slowly and more deeply than usual until you find a nice easy rhythm, then it's activating something that you can feel appreciative, or caring, or loving about. And even if you can't feel the feeling shift right away, just the attitude of gratitude, the attitude of care, people start to see the heart rate variability

going to that smooth coherent mode, but getting into the breathing rhythm that helps the heart rhythm get in sync is always the first step.

Katie: Got it. That's super logical. I can't wait to try it out. I have the emWave, the finger model, the older one. I want to get the multi-user one for the family. I want the kids get involved, too, because I think that would be a fun way to start our school day, is with something that gets you calm and focused. It seems like a great plan as their teacher and their mom to have them calm and focused.

Deborah: Oh, it works marvelously, and, you know, what starts to happen if you're a mom or a teacher is the kids know what it means then to be in their heart, and when you get out of your heart, they'll say, "Hey, you're out of your heart. You need to get back," which is nice, but it keeps you on your toes.

Katie: Yeah, exactly. The kids are great teachers that way for sure. So I want to mention, so you guys have a special offer, including the eBook, I think, for our listeners, which was at wellnessmama.com/go/heartmath. But can you talk a little bit more about that and just kind of give specific recommendations, like, maybe if it's just for a mom, what would be the best thing to get, if it's for a child, what would you want to look at first, things like that?

Deborah: Yeah. Well, once you go through your affiliate link to our site, there's a whole lot of things people can look at. We have a landing page, but at the same time we have...let's call there's the inner balance, which is the smartphone tablet technology, then there's the emWave2, which is a handheld, but it's still single user, the one you're talking about, but it plugs into your computer, and you can see all the games and get access to it. It's gonna be portable. You walk around, and it can tell you when you're red, blue, and green, but you have to stop, you know, use the sensor to really get an accurate reading. And then it has the emWave Pro for classroom use or multi-user. A lot of the health professionals we work with and school psychologists, they use the emWave Pro, because they have a lot of clients.

We also have something called the Add Heart Facilitator, and that's really my favorite product, because that includes the Inner Balance technology with a Bluetooth sensor for Android or iOS devices. But it also gives you a code to our learning management program, which is 6 20-minute to 30-minute sessions that take you through a little bit of HeartMath science, a HeartMath technique called the Heart Lock-In, but three different steps of it, so you really learn it, and then how to practice, a little practice plan, and how you share it with others, and how you can share it with your kids, your spouse, and so it is more of a learning system. And so that along with the different eBooks that we have, like for stopping emotional eating, or how to use the technology emWave or Inner Balance to add to your meditation or mindfulness practices, a better sleep book. There's also one called Brain Fitness System, which is how to use the technology to improve memory, improve all your intuition and cognitive functions. So all those are available at the site, and the link will lead you to the special offer.

Katie: Awesome. And, again, all those links will be in the show notes at wellnessmama.fm, and we'll make sure we link to all the specific ones as well so people can find those. But, Dr. Deborah, thank you so much for being here. I love this technology. I'm gonna try it myself, and write about my results, and share with the listeners, but I love that there's now this empirical tool that helps us all to actually understand what's going on with our autonomic nervous system and inside our body in such a unique way. So thank you for your research, and for being here, and for sharing your wisdom today.

Deborah: Well, thank you so much. I'm so glad to share with the moms. Please have compassion for yourself. It's not only important or good for you to do, it's healthy. So just shift to your heart, breathe through the heart, and just have an attitude of sincere understanding and compassion for yourself, your kids, and all the other moms at this time, and what's happening in the world, and just love to all of you.

Katie: That's awesome, and, yes, I 100% agree. And thank you again for being here, and thanks to all of you for listening, and I hope to see you around next time on "The Healthy Moms Podcast."

If you're enjoying these interviews, would you please take two minutes to leave a rating or review on iTunes for me? Doing this helps more people to find the podcast, which means even more moms and families could benefit from the information. I really appreciate your time, and thanks as always for listening.