



Episode 179: Understanding DNA Damage and How to Reverse It With NanoVi

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Katie: Hello and welcome to, "The Healthy Moms Podcast." I'm Katie from wellnessmama.com. And I cannot wait to geek out in this episode. I am here with Rowena Gates who is the Principal and Vice President for the Eng3 Corporation, a life science technology company addressing health, wellness, and performance. And we're gonna delve into exactly how in this episode. She has focused on their business development and international strategic relations for more than a decade. She's also a serial entrepreneur and so inspiring. Prior to joining this current company, she spent six years as the founder and CEO of Aviarc. I hope I'm saying that right, Corporation, which provided internet based solutions for international trade.

She also co-founded a document imaging company now doing business as Image Source. Prior to this, she co-founded nPassage, one of the earliest companies to offer an internet based solutions to the logistics industry. She received a doctorate from the University of Washington for her dissertation on international strategic alliances. So needless to say, she's wicked smart and super qualified and I can't wait to jump in. Welcome, Rowena, and thanks for being here.

Rowena: Thank you, Katie. It's a real pleasure.

Katie: And I'm so excited to get to chat with you about the science behind your current corporation and what it does. And I know that it involves basically working with and reversing DNA damage, but I think we need to start

at the beginning and kind of define some terms. So to start, can you explain what DNA damage is and how it occurs?

Rowena: Sure, the DNA damage is part of a general area of cellular damage that's done typically by oxidative stress or oxidation. And that's happening because we breathe oxygen and it's a damaging component of that process. So the only way to get rid of that damage is to not be alive, which is a bad alternative. So the idea is we wanna repair the damage as fast as possible. And it occurs not just for the DNA, but the mitochondria, the cell membrane, the proteins, all different cell components are constantly being damaged. And fortunately, our body is constantly repairing them.

Katie: Got it. So basically, the very act of breathing essentially causes DNA damage in today's world?

Rowena: Yes.

Katie: Wow. Okay. So one thing I've always thought about this, I feel like when it comes to even things like EMFs or anything that's chronic, if we can't see the immediate damage and it isn't immediately noticeable, I think it's an easy thing to ignore for a lot of people. So can you kind of walk us through what are some of the long-term problems that can occur from this DNA damage?

Rowena: The biggest one and it's not really a problem, it's a natural process, is aging. That's the indication that we kind of lose the battle and there's more damage than there is repair. So that's the most obvious one. But people also notice a lack of energy, maybe their immune system gets a bit weaker, they don't sleep as well, that would be less balanced in the autonomic nervous system. Maybe they don't detoxify as well as they did, or there can be a reduction in lean muscle mass, just all of these things that most of them are ones we associate with aging are all indications of that ongoing process.

Katie: Got it. Is there any link with DNA damage in anything, like, for instance cancer or chronic disease of any kind?

Rowena: Yeah. All of them really because the DNA is the blueprint, it's the template for the next cell. So if there's DNA damage, then the next cell might not be formed perfectly. And if they slowly degrade, again, that's the aging process. And so the DNA damage is absolutely key and keeping it healthy is essential for the body to replace cells that are also healthy.

Katie: Got it. And I know that the idea of telomeres, which maybe you can explain the concept better than I can, they've had their kind of day in the sun recently. There's been a lot of press about them. Does DNA damage, is that affecting the telomeres?

Rowena: You know, that's not my area of expertise and it certainly would, but that's a key aspect of it. But the telomeres per se are not something we've studied directly. We have looked at double strand DNA breaks, which are the complex difficult types of breaks in the DNA, but not telomeres specifically.

Katie: Got it. That makes sense. And then so even just the act of breathing can then damage the DNA. I know my background being in nutrition and lifestyle factors. Are there other things? I would guess if just breathing things in the air can but also our exposure to chemicals in the environment or poor food, would that also cause DNA damage?

Rowena: Absolutely. It's those exposures that do that oxidative stress damage and also weaken your body's ability to repair the damage that does occur. So those are key factors, what you eat, what you put on your body, and what you're exposed to, are really key to reducing the damage side of the equation.

Katie: That makes sense. Okay, so is there scientific evidence that the DNA can be repaired? Is this a reversible problem? And if so, can you kind of walk us through what that mechanism is by which it can be

repaired?

Rowena: Yeah. All of those repair processes are taking place by protein activities. And we tend to think of protein as the kind we eat but in this case there are chains of amino acids that must fold perfectly into three dimensional structures to go out and do their job. Proteins are doing virtually everything in the body or most things in the body, and one of them includes repairing the DNA or other cell components. And so once they're initiated they go and they fix...rebuild whatever cell component is broken.

Katie: Okay. I think I'm starting to understand. So I'm also curious, why does the body need help repairing the cells? I guess, I try to understand, so if aging is a natural process, normally the body this would just happen over time. So you're basically saying, like, we now have the technology to be able to reverse something that was previously not technically reversible or does the body have a mechanism to do this as well?

Rowena: I believe that it's only the body that has those mechanisms. The body really needs to repair itself. And what we can do with technology today is encourage it. Some of the things we do with technology today are maybe not so helpful, but the idea is to support the body to do its own thing where the body already...all that repair is done naturally, and it's a matter of just supporting that rather than overriding it.

Katie: Got it. So that would also be inclusive of, like you mentioned, the healthy diet and lifestyle as well. And you mentioned I think a little bit and I found this in researching for this podcast, can you talk about what reactive oxygen species are, kind of, and their role?

Rowena: Yeah. The reactive oxygen species are a free radical and they are the damaging component. And they also in the last maybe 20 to 30 years, it's been recognized that certain reactive oxygen species also have a secondary role or actually a very important role that works to trigger repair mechanisms. And so they're a little more complicated than we originally thought, and if they have this signaling function then they emit a specific electromagnetic wavelength that influences the cell and initiates repair. And so this is one of the reasons that people are very cautious now or hopefully people are cautious now about not overloading on antioxidants, because if you do too many antioxidants, essentially supplemental antioxidants, you can shut down that signaling process, in which case you're kind of undermining your health rather than supporting it.

Katie: That's a great point. I know I've seen the research on that recently and their recommendation too as much as possible just obtain the antioxidants from food. And I guess you probably agree with that statement. So before we can go deeper into the science, I feel like we also need to introduce the idea of the device that you helped create the NanoVi. So can you walk us through what the process was of figuring out how to create this device and what it does?

Rowena: Yes. The scientific research was done by others, essentially, the biology, physics, chemistry. They recognize some of these signaling mechanisms and also the important role that water plays in the signaling and in fact in all cellular activities. And so there's a number of areas of science that had all advanced to the point that we could leverage that information, and also the technology had advanced so that it become possible to mimic what the body's doing technologically. And 20 years ago that was not possible. And so all these things came together so that we could create this product but it involved the scientific research, the engineering research and development, you know, the product development registrations with different countries and regulatory authorities, quality assurance systems, university testing, validation research, and so on. So overall, it's a big and long process.

Katie: Got it. And so can you kind of walk us through the scientific mechanism of how the device works? I know from what you said about DNA damage and the aging process that it obviously acts there, there's a component there. And I will say having met you in person and the rest of the team, like, that's proof enough to me that it works because you guys all look amazing. But I'm curious to really understand the science.

Rowena: Yes, sure. To do that, let me just kind of go through a few key points because they all kind of build

together. The first one is that about 99% of the molecules in the body are water. So the water plays a really key role and that's what we leverage in our technology. And then secondly, we already discussed how the free radicals or oxidative damage are constantly damaging all the cell components, DNA, proteins, mitochondria, and so on. The next point I think I already made but just as a reminder, the proteins do all the work in the body. They're called the workhorse of the body, everything from movement to fixing any of the oxidative damage. And the proteins are immersed in water.

And so in order for them to function...this is the new bit, in order for them to function they have to be folded into three dimensional structures, and it's a complex process where they have to be just the right shape in order to function correctly. And so they interact with the cellular water and create those three dimensional shapes. Well, of course the oxidative damage is hurting those shapes and they're causing them to unfold. And so that's an ongoing process. Where we come in is our device helps the proteins to go through that folding process by influencing the cellular water. So the water that all proteins are immersed in is adjusted slightly by our technology that helps them to fold correctly, and then they can function correctly. And that is completely up to the body what needs to get done. So all we do is support underneath and then all the repair mechanisms, and priorities, and so on are...that's all established by the body. So none of that natural wisdom is overridden by what we do.

Katie: That makes sense. And I have, like, a background in research and science and I feel like this is still even above my head, it's such an amazing concept. So what is the kind of the bioidentical signal from the device that's causing the structuring? Is it electromagnetic, or auditory, or what causes that change?

Rowena: It's actually electromagnetic and it's a specific wavelength in the electromagnetic spectrum. Where it sits is at the very high end of the near infrared spectrum. And so that, if you think about infrared technologies like lasers, or pulse EMF, and so on, those technologies are typically 600 to 800 nanometers, maybe a little bit more. Our device is up above 1,200 nanometers. And what we're doing will not go through the skin, it has to go through the water. So that's...our delivery is through a humidified airstream. And it is...you know, in some sense, is it's sort of this, kind of, indirectly near infrared technology, but it's outside of the range where most of us think of being infrared.

Katie: Okay, that makes sense. So basically, the only way the body can intake it is through...basically it's entering through the lungs because it's in that humidified water?

Rowena: Yes. And so the way it gets in is through the mucous membrane. It has to touch the water...the watery surfaces in the body. So, when you inhale it through, you know, the nose or into the lungs, then all of that is that connection to the water, which is essential for what we do.

Katie: Okay, because I know I've gotten to try the device before and even have ordered one now to have in my home. And it's basically, like, a super simple device that I'm gonna keep by my computer and just have it on. And it's not for a lot of time, right? There's different levels, but it's not a huge time commitment, especially because you can do it while you're doing something else.

Rowena: Exactly. And that's very common both in clinical settings or at home where people are, you know, combining it with different things.

Katie: So why do you think...I know there's so many different health approaches out there right now and different devices. Why do you think this is the way to go? Why do you think this is such an important technology?

Rowena: This technology has absolutely no potential for harm. The way it works is just to support the body. If the body didn't need that, well, we wouldn't be aging if the body didn't need some help. But if it didn't need that, it would simply be ignored. And the key here is that it's biophysics not biochemistry, and so we're not adding a pharmaceutical, or a supplement, or something that could be too much for the body. We are just using a

biophysical approach to support the body. And that is a really kind of a special technology that has so much potential for benefit without the potential for harm.

Katie: That's so fascinating. Have you guys done any clinical work clinical studies around this to, kind of, see what the data does?

Rowena: Yes. We've done research on the technology itself, which is part of that whole product process, and then on human beings and how they respond. We don't look at disease states. We're a class one medical device, so we're not studying a specific disease. We're studying the aspects that underlie our health in general. So they're things like DNA damage, oxidative stress, immune response, inflammatory markers, things that represent health but are not specific diseases.

Katie: That makes sense, but those are also all measurable. Correct? There's metrics that you can track for those?

Rowena: Yes, absolutely. And we have them done with double blind placebo controlled university research looking at those differences. It has to be very verifiable.

Katie: I love that. I knew that you came from a very well researched background and I love that you guys have done...because I know that's an expensive and lengthy process to do. I love that you guys have done that due diligence. And it's so rare, I feel like even in the more naturally minded health world to find something that doesn't have any potential for harm and that also has double blind clinical studies. That's a gold standard that you don't see very often. And I'm curious what kind of people are you seeing currently use the NanoVi technology? Where is it being most implemented so far?

Rowena: Well, we have three areas, the first one and the one that was most used when we first released a product was for chronic illness. All chronic illnesses related to oxidative damage. And so that was the biggest area in centers by individuals at home and also in centers or clinics. The next area is one that we love and you also, I think, really appreciate it, is the wellness and healthy aging where people are trying to maintain their health, not recover it after there's already been a lot of damage. And so that's been a really big growing area for us. And also the one that's growing quickly right now is sports and performance, and really the whole spectrum from weekend warriors to high end professional athletes using the device to recover faster, maintain their health because athletes, especially endurance athletes, are...you know, there's a lot of oxidative damage so they wanna make sure they're repairing it and staying as healthy as they can. So those are the three big areas for us. We see it combined in...you know, in wellness centers, it really combines well with hyperbaric or cryotherapy. It's used in performance centers sometimes in conjunction with other recovery devices. It's used in weight loss centers or in the workplace, for companies that are trying to maintain the health of their employees.

Katie: That makes sense. And you just actually touched on one of my next questions, which was...because we know for instance with especially endurance athletes, they are creating all these extra oxidative stress by its nature. I know people love to do that and I have only respect for people who can, but it is very stressful on the body. And I know also personal friends who are using hyperbaric oxygen to help work through several different conditions. And that was gonna be my question is, we know that hyperbaric, for instance, increases the oxygen in the cells in the blood, but it can also increase the reactive oxygen species. So that makes sense to me that you would you would pair these together, basically. So someone after hyperbaric would do this?

Rowena: It's really taken off with hyperbaric centers, the adoption of it, because they can...they can compare the results with and without. And the two of them combine really nicely, that repair aspect. But also, because of the way it works too, our device improves mitochondrial function. It improves the utilization of oxygen, they can get a bigger kick from a hyperbaric center so they get better results and they have that reduction in oxidative damage.

Katie: That is really fascinating. It makes total sense, though, and I know that's a growing area as well, hyperbaric. So I love that those are being paired and I think I've said this before I'm curious your take that unfortunately I feel like everybody alive right now we have to face a lot more potential damage than potentially previous generations did. Like, I look back to my grandparents or great grandparents and their diets were just naturally more nutrient dense, because the soil was more nutrient dense, and they typically had less stress. And they dealt with less obesity, and they have all these different factors in their favor. Whereas I feel like now we're kind of operating in a time where we do have to be a little more proactive about our health, just to maintain, like you said, keep a health baseline and not encounter disease, just because we're constantly bombarded with so much more. But have you seen that as well, either personally or in research?

Rowena: I absolutely agree with that. I guess starting with personally, it's just very clear to me that that's the case and it's fine to say, "Oh, you know, eat really good food," but it's another matter to find the soils and all of that that produces that food that's actually as nutrient dense as it was 100 years ago. It's really, you know, much more challenging. And then scientifically, I think I'd have to say that that's not really my area to kind of look into it, but I think there's huge evidence of it, including, you know, our national agencies. So to me that seems rather indisputable.

Katie: Yeah, I agree, unfortunately. And that's my passion and how I got into this is just realizing, kind of, what an uphill battle our children are gonna face in trying to...like you mentioned before, give them the best start where they don't have to come back from chronic disease. They can hopefully not have it in the first place. Another question I've been meaning to ask you is, so with the name NanoVi, where did the name come from? And does that indicate that there's like a nanotechnology aspect of this?

Rowena: It is. It is a made up name, but the Nano aspect of it, yeah, biophysics is happening at a very, very, very small scale and so that's kind of at the heart of it. Vi has a lot of different meanings from, you know, vibration to vitality, and so on.

Katie: Got it. And so I know a lot of people listening just based on reader surveys I know that quite a few people are either practitioners, chiropractors, or married to doctors who are chiropractors, or people who may be interested in actually getting the device. I'd love to talk a little bit more about where they can actually find it, how they can get it, and the cost involved, just because I like to be super up front about all those things. If you don't mind tackling that.

Rowena: No, I don't mind at all. And I love it when practitioners get it. We have a great number of home users as well. But when practitioners get a device and make it available to multiple people, it becomes a very effective and cost effective device. So it's ideal. Of course, if we could all afford one in our own home, that would be great too. So on the side of the cost for practitioners, there's really two professional devices, one of them is a 15-minute device and the other is half an hour. So it depends on the context in a center what fits in best.

And then there's also a home device which is an hour long session time, not really used professionally but if it fits into somebody's schedule at home, that could be a good way to go. So starting with that device, the price is a little over \$5,000. The medium device, which is a half hour session time is over \$8,000. And the high-end device, which is a 15-minute session time is a little more than \$13,000, closer to \$14,000. So that's sort of the price range of the devices. And as I mentioned at the very beginning, multiple people share them in a family or in a wellness center so that they can be really quite cost effective. There's no ongoing cost to operation. But we love to see them in shared environments, because then you can leverage it across many people.

Katie: For sure. I mean, as you're saying that I'm thinking like massage places would be...that'd be awesome to have while you're getting a massage or co-working spaces. There are so many ways where they could be shared, even if the cost is prohibitive for one person, they could be kind of shared amongst a group, and a lot of people could benefit.

Rowena: Yeah. And you're kind of hitting on something that I have a personal interest in, which is community health, you know, that we kind of do things together and help advance a whole community.

Katie: I'm gonna come back to that in just a second because that's a huge passion point for me as well. Can you also just explain really quickly why they have different amounts of time?

Rowena: It's really just the output of the device, how powerful they are, that's the big factor so that you get more of a kick from the most powerful device and therefore need less time on it. That said, many people spend more time on the more powerful device. So it's not that that's all you can do in a day, it's just that those are the equivalent times.

Katie: Okay. So basically, an hour on the lower device would be the equivalent to 15 minutes on the higher device. But there wouldn't be any maximum dose since it's completely safe, right?

Rowena: Right. So you have the most powerful device and you could use it maybe twice a day for 20 minutes. I tend to use it more because I have one in my office and you might be the same way if it's by your desk, you just use it. You know, there's no reason not to use it almost if it's handy, and I put it on typically once in the morning and once in the afternoon, but the session times will almost always be much more than 15 minutes.

Katie: Okay, that's a great tip. So back to the community because this has been my current passion of research recently, just because I ran across studies and statistics that said literally having a strong and healthy community is more important than exercise. It's more important than quitting smoking as far as longevity and long term health markers. So like the data shows, we know that we need other people. We need strong relationships with other people. And obviously we also want these other people that we love to be healthy and live a long time. But I'd love to hear your take on it and what you see and what you personally believe as far as community.

Rowena: Well, I completely agree with you in community in general. And I have also been reading and seeing that research and looking at just how powerful that is. But when I think of the community health I'm being a little bit more economic, I think, which is that if we share devices and we share knowledge, we can advance everybody in the group so much more than if everybody has their own silo and they're buying their own goods, and so on. And so I'm really thinking of it, to me, it's the only way to make preventative health widely available is to share it and I'm very sensitive to economic issues. I know our device is expensive, but I also...I'm always looking for ways that engage every level rather than just, sort of, something that's available to the wealthy.

Katie: I completely agree. One of my dreams and something I hope to actually put into action in the next year or so is to create mini wellness labs that would be in local communities where people could go similar to a gym but that would have more of these kind of wellness devices, and potentially also exercise equipment, but that would have some of these more expensive devices so that a large group could share them. And also, it could be a place where people can come together, and talk, and enjoy community while getting health beneficial treatments. I love that you said that. And I think you're right, I think that's a perfect way to spread it out. And for my side and the less scientific side, I would say it's also just great for other health markers and for mental health to have that community. So maybe that's something that can be built and planned in communities around the country where there's areas focused on wellness and community.

Rowena: I think you are describing the future. I just don't see it going in any other direction. We need that to make, you know, proper wellness accessible and we need it, you know, emotionally, psychologically, and essentially rebuilding community and as this key aspect of society of happy people.

Katie: Absolutely. And I know our family personally, we've made the decision to go with much less expensive health care options rather than really, like, high priced insurance that would cover everything and to spend that difference more focused on wellness and preventative care realizing that in the long-term, it seems to actually save money. And I know a lot of people are, kind of, on that wavelength. And my personal opinion is that with

this so called healthcare crisis that we have, that the solution maybe doesn't even need to come from the top down, maybe it needs to come from the individuals up and we need to take more ownership and become advocates in our own health. And I think that's a part of your message as well because you're providing a device that really lets people become an active part of their own wellness versus having to go to a doctor to get diagnosed with the condition before they do something.

Rowena: I completely agree. And we do the very same thing where we have the sort of the major medical but invest directly in the wellness and prevention, the ways to really support our health. And I would argue, I mean, even more that we don't have a healthcare crisis as much as we have a health crisis. You know, we need to solve the health part of it and the care part of it goes away.

Katie: Absolutely. The statistics there are completely staggering and I agree with you 100% on that. Do you see or is there a potential in the future that the NanoVi could be approved for specific cases? Or is it...because it's so safe, is it actually not going to ever be able to be indicated for, like, for instance, something like cancer or chronic disease?

Rowena: It's interesting. It could certainly could pass the clinical testing for disease. We haven't done the clinical testing, but we certainly have more than enough evidence to suggest that all of that is possible. There are issues around billing codes. So even if you had an indication for one of these illnesses, if it couldn't be billed through insurance, it might not be possible to implement it. And so our device is not one that fits nicely into the billing codes for insurance companies. And so we don't foresee that being a very realistic possibility for this kind of technology.

Katie: That makes sense. And, yeah, I feel like that's a frustration for a lot of people in the health world in different areas. And maybe that'll be something that one day can get resolved as well. But for now, I am glad that it's available without that. You can just go directly and get it yourself versus even having to go through a doctor and through insurance. And if you don't mind getting a little personal for a minute, I'm always so curious when people are such high achievers who have maintained a high level of health and you've done it without even, like, getting wrinkles or looking stressed at all. So I have to ask you, like, what is your normal lifestyle a day look like? Because I am fascinated by that.

Rowena: I think you're far too complimentary and I'm just glad there's not an actual video with this podcast. I haven't been without my challenges, but what I do generally a normal day is I do intermittent fasting probably five to six days week, not every day. And so I normally wouldn't eat before around noon or something. I'm not very religious about this. And then I need to eat all three meals because otherwise I would lose weight. So I cram the three meals into six or seven hours a day. And I also exercise pretty regularly, often not very aggressively. And one thing that's really helped me is high intensity training. It's also called super slow, but it's heavier weights done very slowly, with relatively few repetitions, maybe, you know, four or five or six repetitions is all before you go to failure on the muscle group. So those are really the things I've done. I do spend a lot of time on a rebounder but that's not very, you know, hard exercise.

Katie: I am a big fan of rebounders. When our oldest kids were young, we replaced our coffee table with the rebounder because it's great for us and it's great for the kids to get their energy out, and I don't regret it for a second. It's been awesome.

Rowena: Yeah, that's a great thing. And one thing I didn't mention, which maybe is the most important thing is to get out in nature. If I can be out hiking, or I was out kayaking a little while ago, or whatever I can do to be, you know, outside and more immersed in nature is invaluable to me.

Katie: Yeah. Like I said, I think we ignore so often the factors that can make the biggest difference, like nature and community. And like you don't necessarily see an immediate change in lab results, but over time, you definitely do. And that was one thing, I recently came back from Europe and I was so struck by how...first of all, they have communities that come together almost every night and support each other, but also they don't

exercise. They move just as part of daily life, whether they're walking somewhere, or working outside, or whatever, they rest more as well. But they incorporate all of those things that you just mentioned into their daily lives so much better than we do. And I think we can all learn from that, just the time in nature is amazing.

Rowena: Yeah. And actually, there's evidence on that now, where the healthiest populations are the ones that just move as part of their natural world rather than, you know, sign up for a fitness class or something.

Katie: For sure. Because I know the data is out there that, like, for instance, an hour in the gym doesn't counteract sitting all day. I've kind of laughed to see the last few years with the media coverage because first it was sitting is the new smoking, and then it was like, "Oh, wait, turns out just standing in a desk is also bad for you." And what we actually need to do is just move around and not be doing the same thing all day long at all.

Rowena: It's hard. I'm standing right now, but I do try to put it up and down a little bit throughout the day. But really a short 10-minute walk would probably be far better.

Katie: Yeah. I think this is one area I can learn from my kids for sure because they do it. Right now summertime especially, they are just running constantly or riding bikes, or climbing trees, or they're never in the same position for more than two minutes. It's incredible. Okay, so a couple other questions I love to ask. But, first of all, do you have anything else about DNA repair or the NanoVi that you wanna make sure we cover before we move on?

Rowena: I don't think so. You go for it.

Katie: Sounds good. You covered it so well. I'm impressed by how concise you can cover such a complicated topic, because it took me a while to research and really understand it, and I'm so excited to be able to implement it now.

This episode is brought to you by Four Sigmatic. My kitchen is always stocked with their coffee mushroom blends, their Matcha mix, and their straight mushroom drinks. Four Sigmatic has figured out how to get the benefits of mushrooms like chaga, lions mane, cordyceps and reishi into delicious instant drinks. My current favorite is their adaptogen coffee blend that has torsi and astragalus. But I love all of their products. They have options with or without caffeine so if you're not a caffeine person you can find products that you will love. And I find that even their coffee blends that do contain caffeine have less than a normal cup of coffee. But don't let this fool you. I have found that I get so much more focus and mental clarity from these mushroom blends than I do from regular coffee, and without the jitters. The addition of the mushrooms, which are considered nootropics, meaning that they are good for the brain makes these super food blends more effective and much healthier than just regular old coffee. I love them with a dash of macadamia milk personally. I also love that many of their drink mixes are instant and packaged into individual servings so they are perfect for travel or on the go. If you're listening to this, then you can get a special offer just for listeners of this podcast by going to wellnessmama.com/go/four-sigmatic.

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Katie: But a question I love to ask is, off topic, but is there a book that has really impacted your life or a favorite book that you have?

Rowena: Oh, I have...could I do two, one professional and one personal?

Katie: Absolutely.

Rowena: Okay. So personally, and this was a really long time ago, but, "The Power of Now" was probably that big impact book for me personally, just being present and learning how to kind of pay attention without using your mind to just being present. And so that was a good one for me. But the one that's professionally which is so interesting is called, "The Fourth Phase of Water" and it's by Gerald Pollack, and it's about the special properties of water and how unique and amazing it is. And it's written by a very serious scientist and written at a very user-friendly level so that normal people can understand it. And it's had a big impact for me and many, many people I know. So that would be my number one pick as sort of a recommendation.

Katie: I will add that to my list. Do you see things like, "The Fourth Phase of Water" and like the technology behind the NanoVi, and the more the physics side of our bodies and our understanding, do you see that being an area of research growth in the next years or decades?

Rowena: Oh, that is the perfect question for me because I think it's huge. What I see as a correction that needs to be made is that we have had a historic focus on biochemistry, on substances, pharmaceutical supplements, and so on. And especially in the United States, we look at the biochemistry and it's a very big industry, but really the biophysics and the issues around the water are areas where we have huge potential for benefit, far less potential for harm, and there's just huge opportunities in the biophysics of it, and I think that's really the last 20 years where that's really come online. But I see that as a future direction in the U.S., I should add that in places like Russia and Germany, the biophysics, they've paid attention to that for a very long time. So it's not necessarily new it's just, I think, a shift in focus. And I think the fact that our health system can't sustain the biochemical approach, I think that really opens the door for other approaches as well.

Katie: Yeah, I agree. And I would love to hear if you would agree with my explanation. But I've kind of heard it explained, like, in a pyramid sense. We started, like, kind of at the top understanding just the body in a very, like, physical anatomical sense. And then we did kind of get this understanding of the chemical side and the biochemical interactions that happened between pharmaceuticals, even supplements, and how they interact. And we're kind of stuck there. Whereas the base of this and the really the most effective and biggest part of it is this energetic physical physics side that we are just barely starting to, kind of, touch the tip of the iceberg of understanding. Would you say it's an accurate understanding? Or, would you do it a different way?

Rowena: No. I agree with that. I agree with that completely. I'm completely onside with you. And if you think about letting the body operate its own way that the body actually knows how to repair and recover, and it just needs support, then you can't override it with substance that's going to go throughout the body, it's going to go places you didn't want it to go, but you can't prevent that, and so on. And so there's real limitations to how much we can do by just say adding pharmaceuticals.

Katie: I absolutely agree. And lastly, if there's a piece of advice that you could spread far and wide or give to a lot of people, what would it be?

Rowena: I would say to never underestimate the body's ability to repair itself. That's my biggest piece of advice. It has fantastic capacity for repair and you just can't underestimate that. You work with it and find ways to support it in those processes. But we tend to focus on what's wrong, you know, a disease or whatever, but really what the body is doing right is just amazing. It's fixing all this free radical damage quadrillions of hits, you know, every day and it does a lot of things right, and that capacity to fix things is almost unlimited.

Katie: I agree. And let people know where to find you and this technology online. I'll also of course link in the show notes at wellnessmama.fm, but let people know if they're just listening where they can find it.

Rowena: Sure. Our company is called Eng3, E-N-G-3 Corporation. And that's our URL which is E-N-G-3-C-O-R-P.com. And you mentioned, the technology is NanoVi. And so those are also fairly findable. And, you know, people are more than welcome to email or call. We interact with people all the time, so I would invite you to feel free to do that.

Katie: Absolutely. And also, I forgot to ask earlier, I have some close friends who are in the dental field. Are there any applications or do you have anyone in the dental field using this? Because I know, like, whenever there's dental problems, there is oxidative stress as well. Is there any mechanism for use there?

Rowena: Yes. Dentists use it for faster recovery. So for them if they have an open wound in the mouth, like an extraction or something, there's the potential for that to go badly. So the faster they can repair a patient the better. The integrative dentist will use it to support the repair process and also they'll use it after a procedure because it helps people kind of come back to life and reenergize, and just kind of help them feel better. So we definitely have integrative dentists doing it. And they're the ones you wanna go to. You know, they're the ones that are looking for solutions to help their patients do better.

Katie: I agree. That's another area that I hope we see a lot of growth and research over the next couple of decades. And I know that there are some amazing integrative pioneering dentists out there and I'm grateful for them for sure. But that's really cool that it can be used that way as well.

Rowena: Yes. Yeah. Definitely. Many years now, we've had dentists using it.

Katie: Awesome. Well, Rowena, thank you so much for your time. This is such a fascinating topic for me. And, like I said, I feel like this is part of a very exciting area of research and I love that you guys are on the cutting edge of that and making this available to people. And I'll of course put the link in the show notes, especially anyone with any kind of wellness practice, or chiropractor, or doctor practice, they can reach out to you and find out more. But thank you so much for your time for being here.

Rowena: Thank you. It's a real pleasure to speak with you again. And you have a great day. Thank you.

Katie: You too. And thanks to all of you for listening. And I hope to see you again next time on, "The Healthy Moms Podcast."

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