

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

# Healthy Moms Podcast

BY **Wellness Mama**<sup>®</sup>  
simple answers for healthier families

## Episode 33: How to Create a Natural Home

Katie: Hi and welcome to the "Wellness Mama" podcast. I'm Katie from wellnessmama.com. Did you know that exercise was found as effective as some medications in fighting insomnia? Researchers found that staying active and exercising on a regular basis was shown to improve sleep quality and reduce sleep problems. It also obviously is linked to better health in many areas, and even to weight loss and better mental clarity. And today's guest and I are talking about sleep and exercise.

Today I have Ben Greenfield on the podcast. He's the author of The New York Times bestseller, "Beyond training." He and his wife, Jessa, live in Washington State with their two twin boys. And Ben is a world-renowned expert in fitness and endurance sports as he's managed to hack his own biology and compete in everything from Ironman to Spartan races without some of the negative health effects that often come with that. And what's less well-known is that Ben is also an expert in healthy home studying and natural living.

And he and his wife have an extremely natural house where they built everything from the ground up, and he's here today to talk about all of these topics from exercise to living in a healthy way and avoiding a lot of everyday toxins. Ben, thanks for being here. Welcome.

Ben: Awesome thanks for having me on, Katie. I'll tell you right now, I'm sipping some tea. So if you hear me drinking profusely on this end, I apologize in advance for any disruptions that has to the podcast. But I'm kind of a tea nerd these days.

Katie: No, I'm actually drinking tea as well, so we can...

Ben: Nice. What's your blend?

Katie: Right now, it's pu'er and chamomile, which is kind of a weird mix. But, yeah, it kind of changes based on the time of day. What about you?

Ben: Nice. Actually, I've got a shiitake, reishi, maitake blend. So got three different ones thrown in there. So there's one for immunity, one for cortisol, and one for blood sugar. So I'm firing on all cylinders.

Katie: Awesome, perfect. Well, let's jump right in then. I know I gave a little bit of background on you and you've been an athlete pretty much your whole life, but at least from the conversations I've had with you, you haven't always been at the level you are especially with the health side of that and endurance. So can you talk about your own journey to health and kind of your progression?

Ben: Sure, yeah. I mean you kind of hit the nail on the head, right? Like, I've always been, you know, at least since my teens, kind of on the pointy edge of fitness, you know, and doing everything from playing collegiate tennis, to bodybuilding, to water polo, to Ironman Triathlon, to Spartan racing, you name it. But I've really come to the conclusion over the past few years that for both myself and, you know, the hundreds of people whose biomarkers and labs that I've reviewed, you can look really great and have really low body fat, and be a fantastic performer all on the outside. But that doesn't mean that you're not, perhaps, they're slowly dying on the inside or else leaving a lot on the table from a health and a longevity standpoint.

I mean, for me specifically, the areas of my life that I really found that I needed to work on even though I was a

really fit dude, one was cortisol, particularly just very, very high adrenal stress index measurements for salivary cortisol levels throughout the day as well as morning blood cortisol measurements, very high TSH due to both autoimmune issues with thyroid, specifically related to dietary factors, but also the fact that hypercortisolism and also kind of, like, chronically low blood glucose can both affect the thyroid deleteriously.

And then my total testosterone, right, like the testosterone that are made by the leydig cells in my testes, that was getting produced just fine, but free testosterone really low due to rampant levels of sex hormone-binding globulin, which is basically the body trying to keep you infertile because you're stressing yourself out so much. So I've seen everything from, you know, the three markers that I've just mentioned to high levels of, like, hs-CRP-based inflammation to very, very high of triglycerides and the presence of very low HDL, to a high very low-density lipoprotein counts, to elevated liver enzymes, to elevated kidney nitrogen and ammonia levels, to low red blood cell magnesium, low vitamin D, typically like either very, very high or very low, estrogen levels in women, always in the presence of low progesterone levels. Like, all of these issues that athletes and frequent exercisers face.

And so really like my mission in the past two or three years is I've kinda started to delve more deeply into what it is that now helps you to perform well, but also to stay healthy and live a long time. You know, really my mission has become more to kind of teach people how to get, you know, things, you know, I'll use this phrase again, firing on all cylinders, you know, rather than just being fit or just having a really good workout.

Katie: Yeah, exactly. And I love...You have a book that I was blown away. It's so detailed and really delves into all of that. It's called "Beyond Training," and I'll make sure to link to it. It's really, really good. But I love that you were able to address all these factors naturally, and that...because, I mean, there seems like there's a lot of debate in the health community about whether endurance exercise is actually that healthy or not, if you should do it or not. And it seems like you've managed to find a way to still do all the exercise that you love and do your endurance sports, but keep all of your levels where they're supposed to be and even thrive while doing that. So what are some of those core things that you rely on to stay that way?

Ben: Oh, geez. I mean, like there's so many. But I would say a few of the biggies. One would be figure out a way to hack your environment, so that even if you are working on the computer, or you're writing, or you work in like an office job, figure out a way to hack your environments that you're almost fooling your body into being in like this hunting, gathering, farming mode all day long. And so, you know, I'm jealous of my wife. She's probably out in the garden right now pushing a wheelbarrow around. You know, she spends most of her day just like out, you know, tending the garden, taking care of animals, building, walking, you know, while I'm inside working on the computer, but at the same time, right, I have a treadmill workstation. I've got like a pull-up bar in the door of the office and right now I'm standing on like this dense foam mat that causes the little muscles in my feet, and my knees, and my hips to have to constantly shift as we're talking.

And so I've hacked my environment to keep myself physically active throughout the day because what research has shown is that, A, it doesn't matter how much you exercise at the end of the day, you know, whatever your CrossFit WOD looks like at the end of the day, if you have your butt planted in a chair the rest of the day due to, you know, tight hip flexors, and your butt being turned off, and low levels of lipase circulating in your system, and all these things that happen when you are sedentary.

But B, you also, when you're just like sitting and staying sedentary for long periods of time, create areas of resistance to blood flow, specifically what you could think of as almost like kinks in blood vessels, where when

turbulent flow goes through blood vessels, it encounters more resistance. And this is kind of like the classic, you know, fit guy who runs every day having a heart attack during his lunchtime run because he sat for four hours all morning at the desk hunched over a computer and then walked out the door went for a run.

So ultimately, the idea here is that if you hack your environment where you can be kinda engaged in low-level physical activity all day long, you can get away with doing a lot less stressful, high-intensity exercise at the end of the day. And that kind of exercise just becomes an option rather than a necessity and this is important because exercise has never been shown to be correlated with longevity. If you look at any of these like Blue Zone books or Blue Zone data, exercise is not something that helps you to live a long time or that helps you to stay healthy, it's physical activity that allows you to stay healthy and live a long time, but not going to the gym, not cranking out push-ups.

So yeah, I'll admit that there are some people, right, that wanna do a triathlon, or wanna do a 5k, or wanna do a marathon, or wanna do a Spartan race, or whatever, and for those people, yeah, you do have to do a few unnatural things, right? Like, me this morning, you know, before we recorded, like I was carrying a keg around my house for a half hour this morning, like around in circles, around the house for 60 seconds, setting it down, recovering, pick it up, carry it around again, and, you know, this keg is filled with water and it's a real chore. And obviously, that's not, like, something I consider to be natural and healthy, you know, busting my butt carrying a keg around the house, but it's getting me ready for, like, the bucket carry that I'll have to do in a Spartan race.

So, you know, ultimately, it does kind of depend on your goals, but the big message here is that when it comes to striking that ideal balance between health and performance, one big strategy is to just hack your environment, so you are active most of the time. One other one that I'd throw at you would be this concept that if you're exercising a lot, you're engaged in a lot of glycolysis, right? So you're either mobilizing glycogen or storage carbohydrate from your liver or storage carbohydrate from your muscle to fuel bursts of activity: sprints, or weightlifting, or whatever else.

The fact is that you can produce high amounts of ATP, your body's energy currency, via the breakdown of fats, and also via the shuttling of lactic acid that's produced when a muscle contracts up into the liver where it gets converted into glucose. Your body actually has its own built-in mechanism for creating glucose. And so when you see athletes and people who are exercising, doing everything from drinking Jamba Juice, to eating energy gels, to drinking sports drinks, to eating energy bars, most of these are formulated with the idea that the body simply needs carbohydrate to fuel exercise, when in fact the...when carbohydrates are metabolized for energy, you create three things.

You create reactive oxygen species, which are very, very difficult on many of your organs, especially your pancreas, which doesn't actually have any natural antioxidant or it's got very low antioxidant potential. So reactive oxygen species are especially hard in your pancreas so you set yourself up for, you know, diabetes-like symptoms and endocrine issues.

You also create a lot of free radicals and what are called advanced glycation end-products, which essentially are the same thing that happens when you bake something with like sugars and proteins in the ovens, right, or in the oven like cinnamon rolls, right? You get like sugars attaching to protein and kind of a flaky caramelizey type of substance as a result. And that can actually happen in your connective tissue, in your joints, in your skin. So wrinkles happen, joint degradation happens, and a lot of that is just due to relying upon carbohydrates

as an energy source for exercise.

And then the last thing is you see a lot of people dealing with like constipation, and diarrhea, and small intestine bacterial overgrowth, and all these issues related to fermentation. And when you look at the fact that a lot of the energy sources that athletes and exercisers are turning to during exercise, right, like, maltodextrin, and fructose, and, you know, glucose not quite as much of a culprit, sucrose can be an issue, but a lot of these things are either wheat, and corn, soy-based or fructose and maltodextrin-based. And so you set yourself up for a lot of like fermentation, gut, and autoimmune issues.

And so I'll take an athlete who is using the traditional fueling method like that and shift them into doing things like drinking bone broth post-workout rather than like a maltodextrin fructose and whey protein-based recovery blend, or do something like have, as your afternoon snack, a little bit of full fat coconut milk with maybe some alkali-free chocolate powder in it to give you a good dose of fat pre-workout without spiking your blood glucose level, also without getting you super insulinogenic from eating too much protein.

There are all sorts of little things that you can do to fuel your body more ancestrally. I don't remember if you were at Paleo f(x), Katie, but I talked for a while about this at Paleo f(x). But you know, I could go on, but those are two simple examples, right? Like fuel your body more ancestrally and hack your environments, you're engaged in low-level physical activity during the day.

Katie: Yeah, great advice. And while we're on the topic of movement, before we move on, can you talk about exercise specific to women? Because I feel like there's so much information and misinformation online about women should do endurance sports, they shouldn't do endurance sports, they're good for the thyroid, bad for the thyroid, weightlifting, no weightlifting. Can you give your insight on that?

Ben: Yeah, certainly. Women actually burn a higher percentage of fatty acids as a fuel, both at rest and during exercise. There's this thing called a respiratory quotient, which is a measurement of carbon dioxide produced and oxygen consumed. And one of the factors that is associated with carbohydrate metabolism is your carbon dioxide production. Interestingly, this is why a lot of times, people who are in ketosis reading a low carbohydrate diet, they tend to have fewer issues getting bitten by, like, insects, mosquitoes, and stuff like that because they produce less CO<sub>2</sub>. And insects are actually drawn to CO<sub>2</sub> production because it indicates higher levels of blood glucose, because someone's metabolizing more carbohydrates.

So women will get bit by mosquitoes less than men as well, but ultimately, lower respiratory quotient, more fatty acid oxidation. What this means is that when you look at women, they actually do pretty well with a low-level physical activity throughout the day that relies upon fat oxidation. And even when you look at, like, performances of the best athletes on the face of the planet, the longer the distance becomes, the closer the gap between the performance of men and the performance of women becomes because women really are good at going out and doing things for long periods of time because they can rely upon their own fat stores.

Now, the issue is that at the same time, going for long periods of time too frequently or too high in intensity can actually diminish fertility. It can increase levels of sex hormone-binding globulin, it can decrease progesterone as more, you know, vitamin D and hormonal precursors are shuttled towards cortisol formation, it can decrease thyroid function. There are a lot of kinda downstream metabolic issues that ultimately result in a woman who is doing endurance becoming less fertile and having lower levels of things like progesterone, in many cases, estrogen, etc.

And so what this means is that for a woman who wants to set up an exercise plan and tap into fatty acids really efficiently, it would be better to not be a competitive marathoner or a competitive Ironman Triathlete, but it would actually be biologically appropriate to do things like hiking and long walks in the sunshine, and things like that because you actually are pretty good into tapping into your own fatty acids as a fuel.

When we get to things like, let's say, like CrossFit WODs or intense levels of physical activity, we kind of run into the opposite issue, the fact that women don't quite engage in glycolysis quite as readily as men do and women simply...they get more beat up from power, and strength, and speed compared to men probably because we, as human beings, for thousands of years, have bred primarily for males to be fighters, warriors, athletes, etc., and for women to be venturing into those territories, that's a relatively new phenomenon from, you know, an evolutionary or a human history standpoint.

And so women from a genetic standpoint simply get a little bit more beat up and have a little bit more difficulty with those type of glycolytic efforts, especially when combined with a lot of the things these days that are popular like intermittent fasting and a low-carb diet. And a while I know, I was just vilifying carbohydrates in relation to like FODMAPs, and reactive oxygen species, and free radicals, and advanced glycation end-products, and things along those lines. Doing a smart and sane carbohydrate refeed at the end of the day is often what it takes for a woman to be able to do high-intensity physical activity like CrossFit WODs, etc., and not suffer from a lot of the kind of like the fertility blow back from doing that.

And so what this means is that you would do low-level physical activity, preferably not marathoning and Ironman Triathlon, if you really care about, like, fertility and overall health, and bone density, and stuff. And then if you're gonna do high-intensity physical activity like WODs, and weightlifting, and explosive activity, you'd include a carb refeed at the end of the day where you're doing like 100 to 150 grams of carbohydrates from sweet potatoes, or yams, or rice, or like any of these clean kind of more ancestral starches to allow your body to be able to handle those highly glycolytically demanding efforts.

And what they've shown in most cases, you know, as simple and as stupid as this may seem, is that like the female athlete triad, the combination of amenorrhea, eating disorders, and low bone density that you see a lot of times in hard-charging females who exercise, that is pretty easily reversed with eating boatloads of calories and lowering levels of physical activity so that you're doing less stressful sessions during the week. And that, of course, makes sense, but that's what a lot of women don't really wanna hear, is like you don't eat more food and exercise less, but sometimes that's what it takes.

So if a female came to me and they wanted to live as long as possible and they wanted to look really good and have like that ideal combination of health and performance, my recommendation would be to do low-level physical activity every day, like a morning walk in the sunshine followed by hacking your environment the way that I described earlier, so that you're always kind of moving with this low-level physical activity during the day to engage in just enough high-intensity physical activity to where you're able to maintain muscle and able to maintain like a good cardiovascular status, but not as often as perhaps even the men in your life do, and not as often as, you know, a lot of women are doing these days.

And so typically, what I found is about two to three harder sessions per week like CrossFit WODs, stuff like that. Like, a Monday, Wednesday, Friday type of hard session makes sense. And then you can fill in the gaps with light restorative work. Yoga, maybe a little bit of easy swimming here and there, maybe a sport, you

know, like volleyball or tennis. So I'm using my wife as an example. She does one pretty hard workout with me on Saturdays where we go out and we do an obstacle course. She gardens and walks most days of the week, you know, very, low-level physical activity, and she plays tennis twice a week and that's her exercise routine. So, you know, that compared to like running for an hour at lunchtime every day, and you're doing a CrossFit WOD every morning, that type of thing, is a little bit more sustainable and a little bit better for longevity in health.

Katie: Yeah. And I love... I think that's such a key point about when you're timing your carbohydrates especially because I found, for me, I kind of hit a brick wall with CrossFit because I was getting up at, like, 4:30 or 5:00 in the morning and doing CrossFit. But then I just was eating too few carbs altogether, and I think the combination of getting up early, so sacrificing some sleep, and then jumping into that first thing in the morning just really wrecked my thyroid for a while. And so I had to learn to be very careful about making sure I was nourishing my body and refeeding carbs at night, and getting enough sleep. And if those factors didn't happen then I didn't need to be doing high-intensity that day.

Ben: Yeah. I'm a big fan especially for women even more than men, again, most likely for the genetic reasons I described earlier. Parasympathetic-based activities earlier in the day where like rest and digest yoga, tai chi, walking in the sunshine, gardening, those type of things early in the day. And then when your body temperature peaks, and your testosterone peaks, and your reaction time peaks, etc., and that's later in the afternoon or early evening, if you're gonna do a hard session, that's when you should do it.

And then I'd give that same advice to any men who are struggling with, like, adrenal fatigue and that type of thing, or insomnia, or imbalance circadian rhythm. Like, start off the day with easy parasympathetic nervous system activity and then some breakfast and then you go throughout your day, and then you do anything hard at the end of the day. And that's a little bit more in line with the human body.

Now, once again, it can depend on your goals and what you're pursuing. Like for me, I would not argue that me going off to Norway this July to do an Ironman, or me doing like, you know, I just did back-to-back Spartan races over the weekend, I do not argue that that is healthy or that, me carrying around a heavy keg in the morning so that my body is ready to exercise at 7 o'clock in the morning when most races start is healthy. It actually flies in the face of circadian rhythm and normal human biology. I do it because it's a notch in the belt, it's my own little personal Mount Everest.

And also because I still define myself as an athlete, as a warrior, as someone who goes out and fights. And probably, you know, if we look at things thousands of years ago, I would have been that guy who really wants to go out, and fight, and protect, and defend, and I'm kind of scratching that itch in a different way. But I think that, you know, even in my case, I trade off some longevity for that.

Katie: Yeah, exactly. But I mean, you've found a way to increase all the factors. So you're able to do those things safely. But I wanna switch gears a little bit and go back to something you mentioned earlier about hacking your environment because you're known on the internet. You're world-renowned for your fitness advice. But I feel like you have some of the best advice for home, that natural home and even food. Your wife has amazing recipes. And you and I have had these conversations and I'd love if we could delve into it here kind of how to create a healthy home environment. And you even have a healthy homestead. So can you tell us a little bit about your home and the factors that you've optimized? And then I have a few points, I wanna really delve into more deeply.

Ben: Yeah, absolutely. And feel free to interrupt me if it helps as I go through this. We live on about 10 acres of forested woodland out in Washington State, in the Inland Northwest in Spokane. And one of my goals in building our home was to build the complete opposite of a smart home where, like, the complete opposite of a home that is filled with Wi-Fi signals, and Bluetooth signals, and automation. And instead to build a home that, A, not only required, you know, human work to work, but also required less or contained less connectivity, less electrical signals, less electrical pollution.

My other goals in designing this home were to allow us to be mostly off the grid and to be sustainable in terms of our energy use, to have good water, to have low levels of mold, and, you know, low levels of volatile organic compounds, you know, off-gassing from flooring or cabinetry things of that nature, and then also the ability to be able to grow and eat all of our own food. And finally, get exposure to a lot of these little things that our ancestors would have been exposed to. You know, we see evidence of everything like the use of, you know, cold thermogenesis, and cold soaks, and rivers and lakes, to the use of hot springs, to nature therapy, and sun exposure. And, you know, there's all these little things that we wanted to work into our home.

So what we did was we basically built a barn and that's the style of architecture that we used. Very big, open barn-type structure, very conducive to relationships, to family, to people seeing each other because that's really a big part of longevity, right? Is just, you know, that the whole family being together, and we really wanted to build it around, you know, eating together, being together, hanging out together. So we have a giant wooden table in the living room, you know, this giant old oak that we got off the Oregon coast that we cut into a table, you know, long to hold breakfast nook in the corner, and the entire downstairs, or the entire, you know, main floor is just kind of, like, built for social interaction. It's just one big, open room.

The downstairs, which is where my gym, and my office, and everything is located, it's more like a daylight basement. I keep it very cool so that my body has to burn more fat and so that it has to increase levels of nitric oxide, and stay a little bit more alert and awake. And I also light it with lighting primarily from the blue light wave spectrum. I use these awake and alert bulbs simply because it is down in the basement and I want to simulate daylight since I'm not outside, walking around. I want all the benefits of sunlight, so I use primarily light from the blue light wave spectrum in the basement where my office is located, you know, where I got a standing workstation and a gym. And it's also the area of the house where we've got like a, you know, kind of like a living room/rec room with the ping-pong table and stuff like that.

But one important thing that's located right here in my office behind me is a little switch, little Ethernet router And I've hardwired the entire house with metal shielded CAT 6 Ethernet cable. So there is no need for a Wi-Fi signal in any room of the house. You simply pull out an Ethernet cable and plug into the internet. So there are no wireless signals, there is no Wi-Fi at all, and there's also no Bluetooth-enabled appliances, and very, very little electrical pollution. I've used a Gauss meter and walked around the house to analyze the actual electrical pollution, and it's little to none anywhere in the house. And that's because most of the internet signals all go through this metal shielding, this metal shielded wiring throughout the house.

Up in the bedrooms, we've got...which are in the upper area of the barn, we've got all red-light-based lights. So light from the red light wave spectrum, a low blue light, light that's more conducive to sleeping, to evening interaction, etc. And so we've adjusted the lighting in our house to ensure that it is compatible with the body circadian rhythm in the same way that we've reduced the amount of electrical pollution, so we're not getting exposed to, you know, all these signals that our ancestors, never really would have been exposed to.

We chose, of course, what's called low VOC, you know, wood, low-VOC cabinetry. You know, really, really low levels of any type of organic compounds throughout the house, and just to ensure that there weren't a lot of things like mold, and fungi, etc., you know, floating around in the air, used a central air filter. So all of the air in the house goes through a central air filter that is equipped with a negative ion generator, which produces a lot of the same like healthy healing negative ions that you'd get from like a waterfall or walking around the forest. But then there's also a UV light in there to kill any mold or fungi, etc., that might be circulating around the house along with a HEPA air filter. So it's very, very clean air that we're breathing.

I have to admit I'm not super-duper concerned just because, you know, we use all natural cleaning chemicals, and we use all natural personal care products. But I still just wanted to have that there just for peace of mind that if we ever did have like water leakage, you know, mold floating around, etc., that a lot of that would be getting filtered out the air. For the water, we dug a well and as far as the well is concerned, the first thing we did was we, of course, tested the water from the well because even if you get water from well, that doesn't mean that there's not run off from like nearby farmland. It doesn't mean that there's not still levels of things like...you know, like our ancestors would have perhaps died from something like hemochromatosis, from the iron that happens to be in the spring that runs under our land. It's just naturally high levels of iron minerals.

So once the water comes out of the well and feeds into the house, I have it passing through a hydrogen peroxide-based water filter that essentially creates a reaction with iron and causes the bacterial-based iron to stay retained in a filter after the water passes through that filter. It also introduces a little bit of H<sub>2</sub>O<sub>2</sub> to the water itself, which is actually quite healing from an alkalinizing standpoint. So there's a little benefit there.

I've also done some testing after I moved in of my own levels of metals, etc., specifically by using a hair mineral analysis, and found that after I moved into the house, I began to develop high levels of manganese. So I think that that's a little bit more of a bio-hack that you can do if you move to a new location if you wanna test what might be in your water that's winding up in your hair. But I added a manganese filter in addition to that iron filtration to the water. So as the water comes into the house, it passes through an iron and a manganese filter. Neither of those type of filters will remove minerals to a significant extent. If I did have to pass the water through something like a reverse osmosis or even a carbon filter, I'd probably remineralize it by having mineral drops or a remineralizing-based filter after it passes through that initial filter.

Then the last thing that happens is since water after it passes, you know, it's running over rocks and, you know, an underground spring is very dynamic water that's typically vibrating at a different vibrational frequency than water that's sitting in pipes or sitting in a sister or sitting in stores. So once the water has passed through those two initial filters, it passes through a structured water filter, which is just a series of glass beads that causes the water to begin vibrating again. It's just a whole house structured water filter. And so by the time the water comes out of the faucet, or out of the showerhead, or out of the tap, or wherever it happened to be in the house, you know, you have water that's been filtered but then also that's been kind of re-energized once it gets into your glass of water, into the shower, or whatnot. So that's kind of what we did as far as the water goes.

We got a cold thermogenesis pool outside that we keep at about 55 degrees. We don't clean it with chlorine, that's cleaned with an ozone and a mineral-based cleaning system. The hot tub is right beside that, so we can do, like, you know, go from the hot to the cold and cold to the hot, which is great for the body in terms of like vasodilation, vasoconstriction, blood flow, etc. But we've got that equipped with, again, an ozone cleaning

system and then also an enzyme-based cleaning system rather than a chlorine-based cleaning system. And so there's not a lot of chlorine that we're getting exposed to, whether we're taking a cold dip in the cold pool, which I do just about every morning, or whether we're sitting in the hot tub at night under the stars. So we chose really, really good clean water on our land.

Eventually, I'd like to add a man-made...not a man-made pool but kind of like a man-made body of water separate from that structure so that we can add bees because I'd really like to get some bees up here on the land, but I really don't want them congregating at the pool. So I'd like to get a nice natural body of water that we build like a natural underground pool eventually, but that's down the road. So for now, our only body of water, this giant, you know, giant, you know, 19 foot swimming pool and a huge 450 gallon hot tub that we had a crane bring in and drop in the middle of the forest out and away from the land, out and away from the house that we use as like a natural soaking area.

Our barn is just about finished and so we're getting a couple of pygmy goats and a flock of chickens to add to that. But the barn is not quite done yet. So once that's done, we'll have those. We've got a eight raised garden beds with some really high deer fencing around them outside where my wife has built some hoop houses for low-temperature gardening and then also just some regular open garden beds for... I think she was out there planning all the spring herbs yesterday actually. But the, you know, the hoop houses have things like garlic, and onions, and kale, and a lot of that cruciferous veggies in them. I'm trying to think if there's anything else. I mean, I know I'm just drowning on here, so feel free to interrupt me if you have questions as I go.

And then we have tons of windows, right? Like, lots of natural lighting introduced into the house for sure, you know, and then all my little bio-hacks all over the house. I've got infrared mats, there's...I'm building an infrared sauna in the gym right now for a little bit of sauna detox. You know, we've got everything from electro-stimulation to vibration mats, to...you name it. You know, all these things that might not be considered ancestral, but they're sort of little bio-hacks all over the house. So it's kind of a mix of ancestral living, and then also, like, you know, healthy biohacking. So it's kind of how we built it up.

Katie: I love that we now have that ability that we can combine the best of what used to be with the best of what we have now. And I think if you do it in a smart way, it really can be so much better. I wanna go back to the EMFs and Wi-Fi thing though. I feel like this is something on my...like, I've seen the research for years on this, but it's one of those that until recently, it seemed like if you talked about it, people kind of thought you were crazy or like were conspiracy theorists, you know, like because they can't see it. So, you know, it was like smoking was back in the day, you know, where you can't see the problem with it, so obviously, it must be fine. But I personally think this is gonna become a really big issue in the next few years, hopefully. But can you talk about why that was so important to you to hardwire everything and not to have the Wi-Fi in your house?

Ben: Yeah. So, I mean, when you look at the data out there on Wi-Fi, primarily, there are like anecdotal experiments, right, with like the plants, that school children tried to grow next to the Wi-Fi router versus the plants away from the Wi-Fi router, and the plant next to the Wi-Fi router just died and shriveled up, whereas the plants away from the Wi-Fi router, you know, flourished. There's evidence of behavioral issues being corrected in kids. There's my own evidence that I just feel nasty when I'm exposed to Wi-Fi all day long versus being in a low Wi-Fi environment. And then there's a lot of the data that's been done in rodents showing leakage of the blood-brain barrier.

And so specifically, you're getting some pretty significant issues with neurotransmitter imbalances and

cognitive performance deficits when you're exposed to a Wi-Fi signal all day long. And, you know, the radiation right next to the head or close to the head may also increase risk of brain cancer, which is why cellphones have their warning signal on them. And I don't know, a lot of people have their Wi-Fi router sitting right on their desk where right now they're working, and certainly, you know, a lot of people do. So there's quite a bit of both anecdotal evidence and then evidence in animals, which I know are not necessarily tiny human, but there is enough evidence out there to make me a little bit gun-shy about being constantly connected to Wi-Fi.

Before I moved into this home, I just had an automatic digital timer on the wall that would turn off the Wi-Fi router at 10 p.m. and turn it back on again at 6 a.m., right? It's like a \$30 little unit you can get off Amazon. But now, you know, it's all hardwired. And same thing with Bluetooth, right? Like, I don't walk around like a Fitbit or, you know, a Jawbone, or any of these like Bluetooth-based self-quantification devices on simply because they've shown similar data in terms of blood-brain barrier leakage with exposure to Bluetooth signals as well. And I'm just not a fan, again, of like the Bluetooth on the appliances, on your wearables.

Even like our alarm system, that's probably...our alarm system is probably the one thing in the house that emits a signal slightly more frequently the one I'm comfortable with. I chose an alarm system that only pings the receiver. I believe it's about every...it's something like every half hour or so. It sends a brief signal to the receiver to like check in and make sure that it's still monitoring the house. And a lot of security systems will just have that signal going constantly like 24/7. But even that, right, like that's still an occasional burst of a signal. It's likely not having any issue at all.

And when I spoke with and did the research with the security guy, we figured out you'd have to be on your...you'd have to be standing next to that thing for like 1,000 minutes to get the equivalent of having a cellphone held up to your head for one minute. And so it's not a really huge signal. But even that, you know, we paid attention to. So, you know, as far as the Wi-Fi goes, most of it is due to potential for blood-brain barrier issues. Also, the other thing that you're gonna find with routers, with any type of signals, is you do get a lot more positive ion production and this comes back to that negative-ion filter that I was talking about that's in our central air filter. And your cells operate at an electrochemical gradient of about 70 to 80 millivolts.

So anytime you're exposed to a large dump of positive ions from a Wi-Fi router, or from airline travel, or from not going outside and you're bare feet enough, what happens is that electrochemical gradient begins to dip from that large amount of positive ion exposure. So you might be operating at 30 to 40 millivolts instead of 70 millivolts. And when that happens, you experience a disruption in normal cellular metabolism. And so you get everything from, like, you know, brain fog, chronic fatigue to muscle aches and pains, to subpar performance. And a big part of that is just because the body is an electrical machine and, you know, that's how it works, how it operates, is on, you know, with a bunch of sodium-potassium pumps and electrochemical gradient. And that certainly is affected by exogenous sources of electricity.

Katie: Yeah, exactly. And another area that you've written in-depth about and that also I've read about quite a bit is the importance of sleep, but also all the factors that need to be in place for quality sleep. So can you talk about what you guys have done to optimize your sleep environment and your sleep cycle?

Ben: Yeah, certainly. You know, begins with lighting, of course. And circadian rhythm is primarily dependent on lighting and food, right? so in an ideal scenario, you're eating at some point in the morning while also getting exposed to large amounts of blue light, preferably from the sun, although there are devices, you know.

Like when I'm traveling, I have a device that I put in my ears that emits a large amount of LED light into my ears for about 12 minutes. There are like these blue light boxes that you can get that you place on a desk, you know. So if you live in a gray area, you don't get a lot exposure to a lot of morning sun. There are other ways that you can simulate the sun. But ultimately, for us, it's blue light in the areas of wakefulness, and low blue light in the areas of sleep. And that's one really important thing.

We also have kill switches installed in each of the bedrooms so that once it's time for bed, you can flip that kill switch off and it eliminates electricity everywhere while you're sleeping. So you're not getting exposed to any electrical pollution while you're asleep, which is really important, you know, for the reasons that I just described. But of course, there's also, you know, for us, I'm just a fan of like these binaural beat and like white noise devices and so I had to figure out how to keep my cellphone charged during the night while having the kill switches on in the bedroom so I could still like get some of this white noise that I like to sleep with. And so I just bought one of these portable cellphone chargers that I can charge during the day, plug into at night, and it creates a very, very low amount of EMF compared to actually having electricity, or the switch on in the bedroom. So that's how I kind of kind of get past that.

We have blackout curtains installed in all the rooms. The kids have a sunrise alarm clock, right, because we do wanna make sure they get up in time for school and so they get that gradual release of sunlight. But the blackout curtain is so that, you know, they can still go to bed at you know 8:30 p.m. in the summer and not be kept up by light coming in through the window. And the same thing in our rooms, we just got blackout curtains installed throughout. The bed is, of course, you know...in all of the rooms of our house, we use organic mattresses with no synthetic materials, no EMF conducting springs, no synthetic foams, just all natural mattress materials.

And we've got a few different brands that we have. Like on our guest room, it's a naturepedic. In our bedroom, we use an Essentia mattress. Our kids right now have a Casper mattress, but I'm working on getting them an Essentia mattress as well. But, you know, mattresses and whatever might be off-gassing in terms of synthetic compounds on your mattress, that's another really important consideration. So those are some of the main things as far as the bedroom is concerned. As far as all the bedrooms are concerned for sleep, you know, it's primarily mitigation of artificial light.

Katie: Yeah, for sure. And you mentioned your boys. So you have twin boys and I see the pictures on Instagram that you post of them working out with you or you guys doing burpees together. So what are some of the ways that you make this healthy lifestyle a truly family activity? And even at their age, I think you said they're seven, how are you guys trying to teach different healthy lifestyle habits to them on a daily basis?

Ben: Yeah. You know, there's a lot of ways we could go with that. I mean, I've even got a little... I'm working on a book right now that I want to be a little bit more comprehensive. Right now, I have a little eBook on Amazon. It's called "How to Grow Tiny Superhumans," and it goes into everything from like how to expose your kids to more germs and dirt, to letting them and go barefoot as much as possible, to letting them engage in free play for at least like, you know, an hour, up to a few hours every afternoon, to engage their creative thinking versus having them in like piano, and kung fu, and soccer, and all these other activities that are good for a kid, but that aren't, in my opinion, quite as good as just like free learning, and creativity, and kind of being able to explore without boundaries.

But ultimately, a few of the things that come to mind right away when you ask me that question is number

one, our kids cook, right? So every time we cook, we find a way for them to help out in the kitchen and they're expected to be a part of making dinner. To not just show up when dinner is ready and to be there, you know, sitting down, eating, and walking away with no connection to their food or where it came from. So whether they are helping me to field dress a deer that I've shot, to helping mom plant seeds or harvest spinach out in the garden, to, you know, soaking rice noodles for Pad Thai, you know, they're always helping and they're connected to food. And I think that's really important for kids to be comfortable with everything from the death of an animal, to the growth of a seed, to how that manifests itself as food in the kitchen.

We also work out together. And as annoying as it is for my kids to be a part of my workout, like it's all, you know, it just is because you have to keep your eye on them and, you know, show them how to do things, make sure they don't get bored. I think that pros outweigh the cons. So for my afternoon workouts, my kids and I sit, and we meditate, we do some box breathing, and we visualize, you know, we do this thing where we visualize our internal warrior, and we practice our deep diaphragmatic breathing, and we'll just spend five minutes doing like four count in, four count hold, four count out, four count hold, and then we'll get up and do the workout.

And, you know, we've... On the 10 acres of land, I've built everything. You know, I've drilled rebar into the ground and created barbed wire crawls at a bungee cord. And, you know, I've got cinder blocks attached to change that they can drag up and down hills. We've got little tires for the kids to flip and big tires for us to flip. I've got 30-foot ropes hanging from a couple of trees, both horizontally and vertically, for them to climb like monkeys. We've got like hay bales that you can throw spears at. And we've got 3D deer targets that they can shoot their bows and arrows at. We've got a little climbing wall that I built with, you know, it's a big wall with little handholds going across it so the kids can climb up, or climb sideways, or climb down. You know, we've got kids-sized sandbags and kettlebells, and adult-sized sandbags and kettlebells. So we've just got a ton of stuff at the house where, you know, I can pretty easily throw together a workout that I can do but that the kids can do with me.

So when dad's flipping his tire, the kids are flipping their tire, or maybe when dad's dragging my tire, they're sitting on top of my tire to give it extra resistance. Or, you know, I'm climbing my big rope, the kids are climbing their short rope, or I'm climbing my big rope with one of the kids on my back for increased resistance. Or, you know, I'm doing a hill sprint up a hill wearing a weighted vest, and my kids are racing me because they're wearing a weighted vest, or I'm doing a run up a hill and rather than wearing weighted vest, I'm trying to carry both of them at the same time, right? So it's always mixing things up and either using your kids as part of your resistance for your workout, or else figuring out a way to slow yourself down with weighted vests and, you know, heavy tires and things like that so your kids are able to keep up with you.

When I swim, same thing, right? Like, I'll swim for a while and then give one of my kids ride across the pool, or, you know, see how long dad can hold his breath underwater with one of the kids sitting on my back while I tread water. Yesterday, you know, for runs, it's always the kids ride the bike, and dad runs and then when they were little, it was a double jogging stroller. Now, you know, I ride, they run. And, you know, for yesterday's workout was we ran 20 minutes down the trail along the river, 20 minutes back, we grabbed the floaty toys, brought them down to the river, threw those in the river. And while the kids kicked around, I swam back and forth and for every third lap that I swam, they would hold onto my feet in their floaties so I would be dragging them as I would try to swim, right?

So there's no rules, but the basic idea here is that, you know, for everything from like, you know, when we

were...when the kids were little babies, we do baby yoga and baby sit-ups. Now when they're older, you know, they're just joining us and we're figuring out ways to slow ourselves down and speed them up. You just figure out a way to make your kids a part of your physical activity, rather than doing what a lot of parents do, which is either, A, check them into daycare at the gym and go to your workout, or get up really, really early like at 4:00 a.m. and try and get your workout done before the kids get up so they're not annoying you when you try to exercise. Instead, we just figured, you know, why not make it quality family time, make kids part of the workout, the same way to make kids part of the food prep.

Katie: Yeah. I love both of those because I feel like some kids, if they only ever get dropped off at daycare at the gym, they view exercise and movement as like a thing you have to check off every day when you're in an adult, or like a thing you have to do on your list, and they don't just learn, like you said, to incorporate it in their life and same with cooking where the exact same way our kids help with every meal prep, and with gardening, and with all those aspects. And I think it's so important to get back to that.

Ben: Yeah, absolutely. You know, even things like going out and gathering food, right? Like my kids will hunt with me and, you know, they'll help out with field dressing, and they'll help out with dragging, you know. And they're comfortable with some of the uncomfortable aspects of getting your food as well.

Katie: Yeah, exactly. Well, I wanna respect your time. But a question I usually end with is if someone's new to healthy living and new to a lot of the things we talked about, what would be your first few baby steps to get them started in the right direction or to really start moving the needle in their own lives?

Ben: I'll give you a few suggestions. Let's go with three suggestions. And these are all just easy entry points, but they'll at least get you thinking. The first is only sit to eat, okay? So only sit to eat. So as you go throughout your day, unless it's breakfast, or lunch, or dinner, and during which it's actually okay to sit and be in a relaxed position that helps with your rest and digestion, and helps you to not be stressed out when you're eating. But other than that, you can walk, you can stand, you can lunge, you can kneel, you can line your stomach, you can line your back, but you figure out a way to do something other than sitting during the day, and it's actually harder than you think. But it gets you into the mindset of being constantly physically active, or at least getting your body into new positions. It's good for mobility, it's good for calorie burning, it's good for keeping your metabolism elevated, good for keeping pressure off your lower back. So only sit to eat, that's number one.

Number two is try the 30-day cold shower challenge. What that means is for 30 days, try not to use the hot water tap on your shower. You don't have to turn it all the way cold, but the trick is to increase your stress resilience, your calorie burning, your nitric oxide production, your alertness, and your wakefulness by taking a cold shower. It's a mild hormetic stress that makes you, you know, as the book by the same name by Nassim Taleb goes "Antifragile," okay? So try for 30 days, just check off each day that you make it. Only take a cold shower rather than a warm shower.

And then the last thing is try to go for the next month without holding your cellphone up to your ear, okay? And don't use a Bluetooth headset as that's still gonna emit a Bluetooth signal. What I do is I'll either talk with my cellphone in speaker mode or I will use what's called an air tube headset, which is a special headset in which the signal travels through tubes rather than through wires up to your ears. But that will help you to at least become, without having to like totally hack everything, it'll at least start you thinking and becoming aware of electricity and how you're using it. So number one, only sit to eat. Number two, only take cold showers, just try it for the next 30 days. And number three, don't hold your cellphone up to your ear anymore.

That's it, just start there.

Katie: I love those. And those are all new tips. I've never gotten any of those before on the podcast. So awesome, thank you.

Ben: Cool.

Katie: Well, Ben, thank you so much for your time and for being here, and for sharing such awesome information. Where can everybody find you online?

Ben: [bengreenfieldfitness.com](http://bengreenfieldfitness.com) is where I blog and podcast all that good stuff. So that's a good place to start.

Katie: Awesome, and I will include links to that and your podcasts and also to your book so people can find those. Thanks so much for being here, Ben.

Ben: Sweet. Thanks for having me on, Katie. I appreciate it.

Katie: Thank you so much for listening to this episode of the "Wellness Mama" podcast where I provide simple answers for healthier families. If you would like to get my seven simple steps for healthier families guide for free, head on over to [wellnessmama.com](http://wellnessmama.com), and enter your email, and I'll send it over to right away. You can also stay in touch on social media, [facebook.com/endlesswellness](https://www.facebook.com/endlesswellness), or on Twitter and Instagram, [@WellnessMama](https://www.instagram.com/WellnessMama). And I would also really appreciate it if you would take a second and subscribe to this podcast so that you'll be notified of future episodes. And if you've ever benefited from something I talked about on this podcast, I would be really appreciative if you would leave a rating or review since that's how others are able to find this podcast, and so we can help spread the message.

Thanks as always for listening and for reading, and for being on board with creating the future for our children that's healthier and happier. And until next time. Have a healthy week.