



Episode 590: Dr. Andy Galpin on Fat loss,  
Hydration, Human Performance,  
and Raising Strong Kids

Child: Welcome to my Mommy's podcast.

This episode is brought to you by Timeline Nutrition. We've all heard of probiotics and probably also prebiotics but have you heard of postbiotics? There are several major reasons these are important and thanks to emerging research, I've been experimenting with them. We know that maintaining muscle mass as we get older is critically important to longevity and enduring good health. In fact, it is one of the biggest predictors of longevity and one of the reasons I lift weights regularly and keep an eye on metrics like grip strength. Postbiotics are the active nutrients your body makes during digestion, and they are an emerging driver of this for a couple of reasons. One major reason is that certain postbiotics support mitophagy or the flushing out of old damaged mitochondria, which is really critical in the aging equation. The best compound I've found to support this is called Urolithin A and I was super intrigued when I found it. It's derived from pomegranate but it's very hard, practically impossible, to eat or drink enough pomegranate to get the scientifically proven therapeutic dose.

Urolithin A is one of the first postbiotics shown to have major health benefits and has become available to all of us. It upgrades your body's cellular power grid - giving your body the energy it needs to optimize. And clinical studies have shown that 500mg of Urolithin A alone significantly increases muscle strength and endurance with no other change in lifestyle. This is where a product called Mitopure from Timeline Nutrition comes in. They've created 3 ways to get your daily 500mg dose of Urolithin A in their product called Mitopure. They've got a delicious vanilla protein powder that combines muscle building protein with the cellular energy of Mitopure. They have a berry powder that easily mixes into smoothies or just about any drink. And finally soft gels for travel or you can use them everyday if you prefer. Personally, I love the starter pack that lets you try all three forms and see which one you like the most. Mitopure is the first product to offer a precise dose of Urolithin A to upgrade mitochondria function, increase cellular energy and improve muscle strength and endurance. Right now, Timeline is offering 10% off your first order of Mitopure. Go to [timelinenutrition.com/WELLNESSMAMA](https://www.timelinenutrition.com/WELLNESSMAMA) and use code WELLNESSMAMA to get 10% off your order.

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Katie: Hello, and welcome to the "Wellness Mama" podcast. I'm Katie from [wellnessmama.com](https://www.wellnessmama.com) and today's guest was a really exciting one for me to get to talk to because I have followed his work for a long time and followed some of his protocols in the last couple of years in trying to gain strength. And they've been very helpful to me. His name is Dr. Andy Galpin and he is the Professor of Kinesiology at California State University in Fullerton. He's also one of the leading experts in the world on all things strength, human performance, and hypertrophy. He serves on the advisory board of many private and nonprofit companies in the area of human performance and works as a high-performance coach and consultant to numerous professional athletes across all of the different sports from Olympic medalists to the top athletes in many of the professional sports leagues and many, many more.

So, he's extremely qualified in what he's talking about. And today he turns the lens of all of his expertise to women and moms specifically and what we can do most efficiently and effectively for ourselves as far as maintaining strength and also for our children based on years of science and data, and also personal experience working with elite athletes. And this is really, really important, even if you don't consider yourself an athlete, because there is so much that is correlated with maintaining skeletal muscle mass, including longevity. In fact, we talk about the people who die fastest are the people with the least muscle mass and that there is an inverse relationship there as well and the reason that strength outweighs even cardiovascular fitness, smoking, and other risk factors as a predictor of lifespan. He talks about the reasons it's important to build strength right now, how glucose regulation is controlled, in part, by muscle, metrics for knowing if your strength is in a good range without needing a whole lot of really fancy equipment to test, and so much more.

And then we go into simple protocols that you can apply, even if you don't have a lot of time, to gain muscle and strength as effectively as possible. And he talks a lot about the data and how this makes a huge difference. We also talk about how we can both model and help our children in this process so that they can develop foundational strength in their childhood years, and also a love for movement and good movement patterns that will carry on into adulthood. We also touched on hydration and so much more. He was an absolute joy to talk to. I learned a lot, even though I've already been following his work for so long. And he also speaks as a parent and a lot of tips that you can give with your kids as well. So, even though I am not in any way a professional athlete or trying to be, I learned so much from him and his advice has been helpful to me. I know that you will as well. So, without any further wait, let's join Dr. Andy Galpin. Dr. Andy Galpin, welcome. Thanks for being here.

Andy: Yeah, it's a pleasure to be here.

Katie: Well, I've actually followed your work for quite a long time. And it's super exciting for me to get to chat with you today. And I think it's gonna be really, really relevant to everyone listening as well, because you have expertise in several main areas that I think are all very important as moms actually, and for our kids. So there's so many directions I wanna go today, but first, can you just give us a little bit of a background on you for people who may not already be familiar with your work?

Andy: Sure. My full-time job is I am a professor. I run the Center for Sport Performance at Cal State Fullerton. So I'm a scientist by day. I run research laboratories that study human performance, and this is everything from what type of stretching routine is the best for getting stronger to muscle biopsies and analyzing individual muscle fibers and figuring out the molecular mechanisms for cellular growth. So we study anything from basic to apply and everything in between that.

I teach at the senior graduate level, and sports nutrition, program design, strength conditioning, muscle physiology, etc. And then on the side, I actually work with professional athletes. So this is from a recovery standpoint, training, nutrition, bloodwork, stool analysis, anything in between that they need.

So I worked with Olympic gold medalist, all pros, Hall of Famers, Cyan winners, MVPs, and a bunch of different probably 14 or 15, professional sports at this point, and the number one player in the world across four of the major American sports. So I'm a little bit of a scientist, a little bit of a, I guess, practitioner. And then, of course, I've got two little ones at home. So that's really my life, and there's not much else besides those three things.

Katie: Well, I can imagine that keeps you extremely busy. But I love that for context for people to understand how much expertise you have in these areas and how much they overlap. And I think this is great for context. Because to start broad, I think often when people like me who are moms at home with kids hear things like, you know, human performance, and high performance, and strength training, they sort of maybe have a tendency to zone out sometimes because they think like, "Oh, this doesn't apply to me. I'm not an athlete, I don't have to do that."

But I followed your work for a long time, and there's obviously so many reasons that strength and optimal movement, it's important for more than just athletic performance. So maybe to start on a broad level, can you walk us through why, like, maintaining muscle mass applies to so much more beyond athletic performance?

Andy: Sure. I mean, and before we even get started, what I can say is, I've actually worked with a large number of female athletes through no intention. But I've worked with a lot of very high-level UFC fighters from Tatiana Suarez to Helen Maroulis, who's a 2016 Olympic champion. Morgan King, Olympic weightlifter and Olympian. So I've actually, I've done this a little bit. I'm not an expertise to female physiology. This is not my whole thing, but I have done this with plenty of female athletes.

So I can speak quite clearly about the differences between male and female. So we can get to that actually down the line. But to come back to your original question, just in general, why is it important? There's a false sense that if we just look at the big picture, that skeletal muscle, and strength training, and lifting weights, is generally associated with either wanting to look better for aesthetics or sport performance. This is what you really need me up for, right? And if we compare that to things like health and weight loss, we tend to associate that more with cardiac and endurance exercise, and cardio, or heart or liver disease, things like this, right? It is a health bonus.

And so we have this dysfunction. This is actually an exercise I go through with my students. And you can just start flashing up terms, and you just see that even as a graduate student in strength conditioning, you just tend to associate A with B, you tend to associate pull-ups with something that an athlete would do. You tend to associate jogging as something you would do for follow-ups, right? And once we get into the science a little bit, it's pretty quickly to realize that those are all very false. And, in fact, they're often detrimental.

And so when we look at things like why do you need to have muscle, why do you need to be strong? And we could do the whole show on that, but it's everything from, I'll say from the female perspective, a couple of things. Number one, in general, if you look across longevity research, you're going to find that the people who die fastest are the people who are the weakest and have the lowest amount of muscle mass.

And that is a very, very strong predictor of all-cause mortality. In other words, who's just going to die sooner? Independent of anything else, if you don't have sufficient muscle mass or you're weak, you're gonna be target number one. And that's actually ranked generally ahead of even cardiovascular fitness and way further ahead than things like blood pressure, even smoking,

The ability to predict who's gonna live longer is gonna be almost highest with most muscle strength. And women in general, having less muscle mass than men, in general, means that you're starting from a lower spot. And so for women especially to make sure that you don't fall into crossing below this line of frailty, is a lot of the ways we think about it, you might have enough muscle now because you're 45, but are you going to have enough when you're 65? That's going to be the challenge, and so you need to build those reserves right now.

Number two, just from a physiological perspective, skeletal muscle is the biggest place where we can send and dump glucose into. And so if you're worried about glucose regulation or controlling your blood sugar, if you don't have muscle, you're gonna have a hard time doing that. That's the main place that it's going to be regulated from and through. So a lot of times people sort of think about the metabolism and all this stuff going on, that's being driven by skeletal muscle. And so it's very hard to regulate metabolic rate, to regulate blood sugar if you don't have sufficient muscle mass.

I should qualify all these with saying, like, we're certainly not talking about extreme. You don't need to go way past whatever you feel like is way too much muscle. But you just don't wanna be low. And so what that means is, again, you might be fine now, but if any little thing happens and you get too busy, and you can't train as

much anymore, you stop going to the...now, all of a sudden, you're gonna fall below that line. And so what you wanna do is create yourself the most amount of buffer that you possibly can.

And so when life pops up, because it will, you break an ankle, the gym shuts down, a pandemic hits, and all the gyms, like all these things, when you drop, because it's gonna happen, you're still in a safe spot. And so it's really about creating that preserve. Another area that's really important for just generally having skeletal muscle is you need to be able to brace yourself from a fall as you age. This is one of the main predictors of morbidity. If you look at the association between things like falling, and a hip fracture, and death, you'll see that those things are extremely tight.

So if you are older, typically past 60, 65, that number is moving up, you know, as life goes on, and you trip, there's a very high chance you're gonna break the pelvis hip bone. If you do that, there's a very, very high chance that you're dying very quickly after that. And so you need to have the muscle to be able to, if you trip, put your other foot back out in front of you in time, have the strength to brace and stop that fall, and then be able to correct yourself and get back up if needed.

So I could keep going, and going, and going, but there are so many reasons why it's important for the general population to have basic strength and basic muscle supply as they age. I mean, we have...I don't even know how many millions of dollars go into the budget in the NIH, specifically for what's called NIH, the National Institute of Aging. And their prior primary directive is what's called sarcopenia. And that's the advanced loss of muscle as we age. And so we're spending hundreds and millions of dollars on this question alone, which in itself, should tell you it's a big deal.

Katie: Yeah. That's super helpful. And I don't think people often realize how strong that connection is between muscle mass and longevity, which I would guess also, I've read a lot about how, for instance, grip strength correlates very strongly with longevity, probably for the same reason. But it makes me wonder, what are some metrics as an average person that we can use to know if we have enough skeletal muscle? Like, are there some benchmarks that are kind of common guideline?

Andy: Yeah, yeah. So there's a bunch of things. You wanna think about size and functionality. And those are actually teased out independently in research. So what I mean is, do I just have enough muscle? And then am I strong enough? They're often very associated, but they're not the same thing. You need both, right? So it's very unlikely you'll have a lot of muscle and be weak. But it is possible you won't have a lot of muscle, but just still be very strong.

And that's like, okay, you're still in a pretty good spot if you're really, really, really strong. You want both, but okay, so what can you do? Grip strength is a very good proxy for general strength. And so the reason you see that across the literature, in my opinion, is simply that. It's not the fact that you need to have a ton of grip, though that is actually important for life, it's just a general proxy of how overall weak or strong you are, probably.

And so it's a very easy thing. You can buy a handgrip dynamometer on Amazon for 30 bucks or something. A lot of gyms are starting to pick them up now as a basic assessment piece, especially for like an executive, physical or something like that. It's very cheap, you can test that on yourself and just squeeze it, and you can look up normative values for your age and all that stuff.

Another thing to think about is you can get what's called a DEXA scan. So often abbreviated as D-E-X-A or just D-X-A. And within that, you can get three primary metrics. Number one is how much body fat you have. Number two is how much total muscle you have. And then number three is your bone mineral density.

And for women, in fact, I literally was doing that this morning for our executive program, and we had a male come through, he was like 31. And he was asking about which scan to get, and I'm like, you don't need the

bone mineral density one, it's just unlikely to be a problem. However, every female that comes to our program, I don't care how old they are, they're gonna get a bone mineral density scan. And we have seen this many, many times, even in young women, that they're very, very low. And this is a huge problem going forward with women, in particular, than men, and we could talk about why later. But it is just a big deal.

So you wanna know that bone mineral density score and you wanna know fat mass. And then from that, you can actually run a really quick calculation called your FFMI, this is your Fat-Free Mass Index. And that just takes into account your height, your body composition, and your body weight. And that will actually run a calculated score and give you, basically it will tell you how much muscle you have. And you can Google this FFMI calculator or norms.

And they'll tell you based on your age, where that score should be. So, for example, you know, as a female, if you're 35 and your FFMI is 15, that's pretty low. I would be like, "Hey, it's not actually..." So often... Let me back. Here are a couple of scenarios that happen. You say, "Okay, I'm 43, I'm 150 pounds, like, okay, I probably should lose some, but I'm not, like, really super fat. I think I'm fine." Okay, great. And you get a body fat scan done and DEXA, and you're 35% body fat. So what happened there is if you would then go and calculate your FFMI, you'd realize that you were significantly under muscle.

And so it's not the fact that you have too much body fat, right? You don't need to be 15% body fat to be healthy a woman, like no, no. In fact, I would even argue you start getting below that, you're probably likely getting into health problems. And so there's an aspect of body fat that people associate with just how they visually see themselves as their health. And so if they don't have a large number on the scale, or they're not excessively, "fat," they think they're fine.

And so you can run that scan and go, "Oh, it's not a fact that you weigh 150 pounds, or 60, or whatever, that isn't that big of a deal probably, for most women, you're 5'2", sure, no problem. The thing I'm more concerned about is you just don't have enough muscle." And that's how that calculation can help you understand you don't have enough muscle. If you wanna lose some body fat, cool, like we can do that. I don't even care though if you're 24% body fat as a 50-year-old woman, not at all. I do care though, if your FFMI is 12, then I'm gonna be like, "Hey, we gotta put on some muscle."

So another scenario that can happen is kind of the opposite where you can go into that and go, "Okay, man, I have all this excess body fat, I'm so unhealthy." And then you look and you're like, "Well, FFMI is actually 21. You have a lot of muscle, you don't need to gain muscle." You can, like I'm always gonna support anyone gaining muscle, like always, basically, but what you really need to do is focus on losing some body fat.

And most people, if you don't have access to this kind of data, you're just looking at a number on a scale and looking at how flabby your triceps are or something, and then trying to make decisions, which is not necessarily the best course of action. You really wanna be able to differentiate is it just simply a fact that you need to add more muscle? Is it just that you need to lose some body fat? Is it both? Where's the problem? That can actually gear your nutrition, and more specifically, your training, based on that answer.

So that is the easiest way to do it. You can get even easier if you'd like and just do basic waist circumference things and you can look up, again, normative values to where your belly button versus your hips should be. And that's actually quite telling. That's just called waist circumference. And again, you can google those numbers, what they should be. And that'll tell you, like, reasonably accurately where you're at on those scales.

So, that's in terms of like total muscle mass. Then you can actually move to the second part of that conversation, which is functionality. How do I know if I'm strong enough? And that is more challenging to define because you start doing things like well, okay, you shouldn't be able to back squat your body weight. Okay, well, hold on. Now, a lot of variables just want an equation. Do you know how to back squat properly?

Are you wearing the wrong shoes? Like what type... And now you just add up a bunch of noise. That's a really difficult one.

So I actually tend to give people things that are a little bit more easy to find. So can you do something like... Can you do a leg press on leg press machine with double your body weight? Okay, like, that's less technically challenging to do, but that is a reasonable number to shoot for. And if you're like, "Hey, I could do half my body weight," I don't care how old you are, that's gonna be a problem.

If you're 1.8 times body weight, or 1.9, I don't know. Is two times your body weight the perfect number? No, no, I don't know. Like, are you tall... I do know if you're less than bodyweight, that's not good. And so we're just looking for a major red flag. So next time you're just cruising in a gym, find any leg press machines and go, "Okay, I'm 180, can I leg press 180? No, I can't." Okay, like, we know you're not too strong. Like, for sure. I know, you're not too strong, and there's a way to go there.

So that's just one metric. Another way of doing it, and I'll stop here is, you can just think about functionality. Again, so are you generally out of breath after a few steps on the stairs? We're talking like, under 20. If you go up 20 steps, your ventilation shouldn't change. And if you're like [vocalization]. Like, if you're huffing and puffing getting your kids in the car, like, we tend to think of that as being out of shape, and it is. But here's what happens, your ventilation goes up, your heart rate goes up because you're weak. It's also because you're out of shape, but it's because you're weak.

And so think about it this way. If I said stand up from the toilet, and you started breathing, panting, panting, do you really think your cardiovascular system couldn't handle one stand up? Of course, it could, you had plenty of oxygen to support the demands for one squat. So why are you breathing heavy? You're breathing heavy because you're so weak that just standing up with your body weight required you to exert a maximum physical effort. That's the issue, right?

So people tend to just think it's like, "I gotta do more cardio, I gotta go run." Again, always worth that. But it's also a telltale sign that you're really weak. Because just standing up or walking up the stairs represents a 95% basketball max do. And watch any dude in the gym, as fit as they ever have been, if they do 95% of their maximum, on a squat, they are going to be breathing heavy even after one repetition. So it's a function of simply having, in this case, you notice I'm actually emphasizing the legs a lot here, like this is the meat of it, right?

You need to be able to locomote and move yourself throughout the world. And so if you're going through basic tasks like that, getting your kids out the door, and you're like, [breathing heavy] you're covered in sweat every morning, and you don't live in like Georgia in August or something, then it's like, hey, this is a good sign that you need to get stronger, because these basic tasks of lifting your children, walking down the stairs, you know, whatever the thing is, loading the groceries, you're so weak, they're requiring you to actually act like you're doing a one rep max deadlift, and that's a problem with strength.

So, there's some specific like lab, the gym tests you can do, but then there's also just some general functionality things that will give you some indication that you're kind of weak. If you can't hold yourself up, and we'll call it dead hang, so if you can jump up and can't hold yourself for 20 seconds, like, that's probably not a good thing, so.

Katie: I love that. And I love that that reframes the conversation in terms of strength instead of just fat. I think for women for a long time, that conversation has been kind of all over the place, and that women have gotten the short end of the stick and how it's played out. I love the FFMI versus something like BMI, which I've noticed in my own progression the last few years, I've had to let go of even scale weight or BMI-type calculations because they don't take muscle into account.

And so, and like, I've heard that example of, you know, every high-level athlete on the BMI scale looks unhealthy even though they are extremely, extremely fit.

Andy: It's not even healthy. They're obese, they're clinically obese are often the highest category of bad possible. So BMI and things like that are fine as a very crude metric if you wanna compare 600,000 people, right? But when it comes to you and your own personal health, it's not the most insightful thing ever. It's just basically telling you how tall you are and then how much you weigh in the scale. You already know how tall you are and you already know how much you weigh the scale. So it doesn't...like, that other number is just doesn't mean much. But yeah, like I think... I won't go into this.

But the whole conversation of just simply worrying from the female side about fat. Look, it's very important that excessive fat composition is very deleterious to your health. It's not just about aesthetics, it's a whole cascade of negative consequences of that. But that being said, there's more to your health than just how fat you are, way more to that story. And if that's the story that is hard to deal with, then just go read a different book.

Katie: Yeah. And also shifting that conversation from the focus on just being small versus the caveat of small but strong. Like, if you wanna be a certain size, that's great, have strength behind it because not only are you probably going to feel better about how you look that way, but like you already explained, it's gonna put you in a better health category and all these other areas as well. And I do feel like it is a little bit of a paradigm shift for women, like I know for me the last couple of years, shifting my mindset about losing weight to getting strong.

I have actually gotten smaller, my weight has actually gone up some, but it's way more fun for me to focus on, I now have multiple lifts that are in the 2x bodyweight category. And my grip strength has moved up to 140. Like, those were really fun targets to hit and they were in a positive momentum direction versus a deprivation lose weight. But I think for someone new to that, I know it was a tough transition for me, the question becomes, like, how do we get strong, especially as busy moms? Like, are there any guidelines as far as amount per week or amount, overall, that we can aim for as a good benchmark to start?

Andy: Yeah. I'm not pandering to the crowd here, I'm being totally frank and honest here. Because I have... I'm not a mom, but I have a mom in my house, right? Like, it was... And I have a 4-year-old and a 2-1/2-year-old, for context. It is significantly more challenging for her than it is me in terms of all these things, right?

So, number one, you just have to recognize it's going to be harder for you than it is for your male counterpart, or your... It's just that is what it is right? Like, it's not fair, it's going to be more challenging because you have this, like, absolute, unbelievable physiological process that's gonna take a toll on your body that's not gonna take a toll on men. And there's 100 other reasons, right?

So, number one, you just have to give yourself a little bit of grace those first couple of years. After that, though, okay, you need to take charge or don't, because you can't keep blaming on your baby weight when your kid is nine. Like, this is no longer acceptable, right? So it's been a challenge for my wife, absolutely. And here has what we've done to be successful. And I said that backstory to help realize that we haven't figured this out either. I don't have a perfect solution. I'm just gonna tell you some things that have been helpful. And we're just figuring some of these things out.

Now as, again, my kids turns two and a half, and this is about even in the last handful of months that we've really been like, okay, this is gonna work, this is gonna work. Number one. We had a COVID baby, right? So my son was born March 6th, 2020, right? Like a week later, which is like the coolest thing ever, he came three weeks early. So had he come anywhere on time, I wouldn't have been able to be in the room. Like all that's all that whole thing, right?

So, number one, I was like, "Well, we weren't going anywhere for six months anyways," basically, right? We got a newborn, you don't do much. So like being shut down. Cool, cool, cool, fine. But after that, it started being like, okay, I have a job that is in the public sphere, basically. So I'm interacting with people directly or indirectly, my wife does not. So it took us a while to realize like, man, she's not getting any social connection at all. She used to have this big network of friends and stuff at work, that's not going on. She's basically talking to babies all day long.

Like, she doesn't really have social media, like, none of that. So she's getting no adult interaction. And it took us a long time to figure out, okay, great. Now, all I'm saying that is exercise-wise, we have a gym in our house. But we quickly realized you need to be going to the gym. You need to be seeing other human beings, you need to be engaging, because you're not getting... I don't need any of that stuff. I have way too much interaction with people in my life. I need to be in my arousal, like, leave me the hell alone.

So we tried, and tried, and tried things, and wasn't working. And eventually, we were like, "Hey, why don't you go sign up the local gym and go to the spin class?" It is wasted money. Like, if we have that equipment in our house, I clearly can program any virtual training and have like for years, but it was like go do that is because of the social interaction piece. So she goes twice a week to spin class, which is great. And then twice a week, she lifts here in the house. And those lifts are big movements. They are 30 minutes total, and they are full body every time.

So we do not try to break it up by body parts. She doesn't do, like, backs, biceps today, legs tomorrow, because the chance of her missing the next workout are so high. Then she was going like a month without doing her arm or whatever. Because it's like it just happened that she missed that and then the kids got sick. And then she'd be like, "It's been six weeks, and I haven't done anything in my arms."

So splitting up by body parts just increases your chances of missing something for a long time. So go full body every time you get a chance to work out. And every time you have a chance to work out, take it even if you're tired or sore, because you know you're not gonna get more in two weeks. It's just like when you have kids at this age... I don't know your experience. I'm just assuming, but we've never had more than two weeks without somebody getting sick, or we've had doctor's appointments, or you just like something... I'm traveling. You're just gonna miss them. So when you have those opportunities, don't squander them. And just be like, "Okay, we're gonna miss this stuff."

So she'll do full body training sessions that are about 20 minutes. She'll typically do like six exercises throughout the day and generally do a circuit. And so it's generally something like lower body, upper body, lower body, upper body, lower body, upper body, does that for one circuit and does that circuit one to three times, like, sometimes it's one because sometimes it's like, "All right, I got 45 minutes, I'm gonna go do a set of 15, all these exercises, and then that's it, like, at least I'm moving." The real nice benefit about that is, that alone will stop you from getting super, super sore the next time you lift.

And so it's not that you're, like, getting a great workout that day, but what you're doing is preventing yourself from being so damn sore the next time you train that have to take a week off. And so it's very important. Like, we literally have, if she's, like, has 20 minutes, like, hey, go do ten of everything exercise you can do. All right, just do the barbell, just grab the dumbbells, whatever it has to be. So those are the guidelines that she has. And that's been, like, honestly, quite effective.

The last part about it is, you just have to carve out non-negotiable times. And that's just that happened, that has to be it right? It's like we have now times that she trains and like it really, unless I'm doing something in like, very, very unmovable, that's just what happens. If you don't do that as the mom, that time just slides away. Number one in our relationship, because my job is demanding moving, my time would just encroach on

her. Right? "Hey, I know you were gonna work out right now and the kid is home sick, but I have to go take this call." So she gets screwed. And that's not how all relationships work, that's just how hard to work, right?

And then it was like, "Okay, great." She would also then do that to herself. "Yeah, I can go work out, but I haven't had a break at all, and I need a mental break." And so like she would create those excuses too. And then it'd be like, "Hey, wait a minute. Like, we this was a contract we signed, you're gonna work out." It's not like me pushing them away. This is her wanting to train, right? But then like, those things creep in your own head. So there's me just helping being accountable, being her accountability partner for her sake, and she'd be like, "You're right. Okay. Yeah, thanks. All right, all right." And then I would do something like, "Okay, cool. How about then tonight I'll go get him from school? I will get that work thing done, that's fine. I'll just do this and then you can have a break later."

But we make sure, like, if she really needs a break on something, it's not exercise. We'll pull out something else. Exercise just has to be the non-negotiable. And I'd say we're 75% successful on that, and that's a pretty good number. But we don't always do it, not even 95%, I think 75% is a fair number. And that's enough. That really is if the rest are working out. So the goal for her is four days a week of training.

And then most days, she tries to walk for 10 or 15 minutes. And this is as simple as she leaves 10 minutes early to get to kids, and just walks on the parking lot. In the sun, dogs out whatever it is, like, she doesn't have time to go do like a 45-minute walk every day with the dog, none of that crap that people say. It can be very, very simple. So I guess to summarize, take advantage of those 10 to 15-minute windows to just walk in the sun. Basically, minimum. Take advantage of just basic body part movement stuffs and then when you do feel good, get after it.

Katie: Yeah. And you guys are definitely in the tough ages with the little ones. I do remember things being much more difficult when sleep is not optimal and you have very real demands on your time from little humans who very much need you 24 hours. And that is a tough phase. And it gets easier, is the good news. You are in the tough phase, and it gets easier.

Andy: Yeah, yeah. So it's actually... So one last interesting thing is she hates...she doesn't like it when the kids are in the gym and she's trying to work out. She can't handle it like mentally, she's just so worried that like someone's gonna fall on their little feet, because they're two and three. I'm the opposite. I'm, like, I'll make an announcement that I'll say, "Hey, dad's gonna go lift weights, who wants to come?" The kids just like run and they're just in the gym with me. And, like, she about has a heart attack the whole time.

So, for me, it's like, that's actually like a little bit family time. I was super proud my daughter did three sets of five fullback extensions off the end of the rack yesterday. I was like, all proud about it. And my wife is just like, "You're such a nerd." It's like, yeah. Like, my son was out there doing upright rows with me yesterday with his little baby dumbbell stuff, you know? So, to me, like, that's actually a little bit family time. If that works for you, cool. Put your kid out there, let them play, you know, with whatever stuff if you can. If that's your personal time, though, don't. And for her, that's her personal time. And it's just like, "Nope, I don't know, like, I need my space." So whatever works for you, I guess.

Katie: Yeah, those are great tips. And another thing that's been fun in our house, I've had a philosophy of foot movement in our way. So we have a gymnastics tumble track down the hallway. We have a hang board in the kitchen and I have pull-up bars in every bathroom. And so my thing is like every time I go pee, I just do three pull-ups or whatever it is. I find when it is kids, especially if it's in their way, they're gonna climb it.

Like, there's gymnastics rings and their bedroom, they're hanging upside down all day just because it's there. They don't have to work on having that dedicated time like we have to be more intentional as adults. I am curious to go a little deeper on the differences in specific training between men and women. Like, for instance,

I've often heard men are more anabolic, women are more anti-catabolic. There at least seems to be a lot of marketing around the idea that men and women need to train entirely differently, which I suspect isn't maybe the whole story, but I've read from you about the 3/5 training is... Am I remembering that correctly?

I'd love for you to just talk about that of, if a mom only has, for instance, an hour three times a week, or whatever it may be, what is her best use of that time if she's trying to get as strong as possible?

Andy: Cool. Let's do those two separate questions. Remind me of that second one. And I'll spend most of time on that second one when we get specific to protocols. So I'll keep this first one short. In general, yeah, I think it's highly.... I started off by started I have worked with and still work with a number of very highly female athletes. And I can say, in general, it is... We've actually done studies. And we actually did the very first study ever, on muscle physiology and female athletes with biopsies because I was interested in same question. So I biopsied a whole bunch of girls that were Olympians and national champions and international things and looked at their muscle fiber physiology relative to men. And at the highest levels, it's not that different.

If you look at the literature on untrained individuals, you will see a slight difference. So women are favored towards slow twitch fibers a little bit when they're untrained. As they become trained, that difference goes away. What's that mean? Well, women are then a little bit more resistant to fatigue, and therefore, are also a little bit less twitchy. So you're more slow twitch, which means men are more fast twitch. So men are gonna be again, as a general statement, generally hedge a little bit more towards explosiveness, women will be hedged a little bit more towards endurance.

So what's that mean? Okay, women tend to recover better. So women also tend to handle more volume. And so if a man can do, let's say, 300 total repetitions of a squat throughout a week, just to put a number, women might be able to handle 325. Like, something like that, right? Does that mean you need to do higher reps? No. It just means if you do more work, you'll probably recover better than the men will, you won't need as much time off, you don't need as much of what we call a taper.

So prior to competition, most men need to back off 50 to 80% in the last two to three weeks, women don't need as much in general of a taper, they can take a couple of days off and all of a sudden they're back to totally raring to go. So that being said, people have used the inverse that therefore women need to do higher reps. It's not true at all. I've seen no evidence to support the women need to do any higher reps. I have seen evidence again that women recover better, right? Sure. So do we train our men different than our women? No, we don't.

There are nutritional factors that can differ and supplementation and hormonal of course, but in terms of your workout, I have not seen any reason in my practical experience or scientifically to suggest women need that different protocols. Women tend to have more range of motion in a better position. So they can generally do more full range of motion exercises. But what I can say about this is, is from a coaching perspective, I have seen more variation just from human to human than I have from men to women.

So if you wanna make general statements, compare, you know, the three and a half billion women compared to three and a half billion men, you'll see some general trends. But when it's actually you and your workouts, or you and your client, it's so unimportant because if you just bought into random men, you would see so many variations in their own physiology that the amount of variations between those two individuals is higher than the variation you can expect between just one random man and one random woman.

So the point is, none of that matters. What matters is you're just paying attention to the person. And it doesn't matter, sex, man, woman, etc. Like, you can kind of keep in your head, oh, it's a woman. So, hey, like, all right, and I can expect maybe 10% to 15%, faster recovery or something. But, like, Charlson might be a woman who doesn't recover well. So then who cares? You're outside that 10% anyways, or it could be a man who recover

super well, or the inverse, so just treat them as an individual person rather than worrying about man versus woman. I just haven't found it helpful in my coaching practice at all. So that's the first part.

The second part of question is, okay, so then what's the 3/5 protocol? So there's a handful of things I generally think about. There are six adaptations one can get globally from exercise. Number one is what I call skill, so that's just like moving better technique. Okay. We'll kind of eliminate that equation, not that important.

Number two is speed. Number three is power. Four is strength. Five is muscle hypertrophy, or muscle size, and six is muscle endurance, right? Now, folded into all of that is fat loss, general health. But those are actually byproducts of those adaptations. They're not actual, like, training protocols.

So what to do? Well, that depends on your goal. If you want to gain muscle, that's a slightly different protocol than if you wanna gain strength. If you wanna gain strength and muscle, that's a slightly different protocol. If you wanna gain strength, but don't wanna add muscle, you don't want any more muscle coming in, that's a slightly different protocol as well. So the nice part about it is a little bit education and program design allows you to design your training program such that you get the exact adaptations you want, and none of the ones you don't want.

So if you notice, like, things like toning, that those are not real things. Toning is just simply adding muscle mass and losing fat, that's all toning is. So there's no protocols for toning. The protocol for toning would just be muscle hypertrophy, and then lose some fat. So that's all that you have to go into. So what do those numbers look like?

In general, and I'll just stick to strength and hypertrophy and fat loss. That's probably what most of the crowds most interested in. So in general, for strength, what you wanna think about here is very, very high intensity. And by intensity, I don't mean effort, I mean percentage of your one repetition maximum. All right? So very high intensities, typically 90%-plus, 80%-plus if you're not highly trained, maybe 70%. And you're probably gonna be in this like three to five repetition range.

So when it comes to strength, this is what I use, the three to five protocol. So choose three to five exercises, back the example I gave you earlier of Natasha, I told you six, so she has six. So three to five-ish, with some grace, right? But three to five, three to five exercises. Do three to five repetitions per set of each exercise, do three to five total sets, right? Take three to five minutes of rest in between and do that three to five times per day.

So if you look at that, that could be as much as five exercises for five sets of five, five days a week. That is a big training program. It can also be as little as three exercises, three reps, three sets, three days a week. That is a 20-minute workout three days a week, and you will get very strong doing that. So you can scale that up or down based on your experience and time and all things like that.

The downside of that protocol, though, it's not gonna add a lot of muscle mass, it's not gonna burn a lot of fat. Because the total caloric expenditure is pretty low, right? If you can imagine going out and lifting, and you do three exercises for three reps and go home, you burn like 15 calories, and like, you're just not gonna be burning a lot of energy. You'll get very strong if it's heavy, right? You'll get very powerful if you're moving really fast. You're not gonna add a lot of muscle mass, you're not gonna add a lot of fat mass.

So as you cruise on to hypertrophy and fat loss, you just simply increase the volume, and because of that, you'll decrease the intensity. So instead of doing 3 to 5 repetitions, you'll do like 5 to 15, something like that. Now, because you're doing three times the amount of repetitions per set, you'll have to drop the weight significantly that you're lifting, right? So in those cases, it's something still like three to five times per week, three to five exercises is fine.

You can do three or so, three to five sets is good. But now the only change here, the reps per set need to go 5 to 15, 20, if you want, 25. Actually, it doesn't even really matter as long as you're taking it to the muscle failure. And so it's gotta be like at or pretty close. There's gonna have to be a burden there. But it's gonna have to be some a little bit of suffering. You can still read three to five minutes, and you can still do it three to five times per week. So the only significant change you really need to make is again, the amount of reps per set that you do. Do those things sort of make... And fat loss is basically the same thing, by the way. Again, fat loss is just hypertrophy, it's as if you're trying to eat less. It's gonna be the same thing.

So those are the only real distinction you need to make. And the weight part will actually take care of itself if you just add more reps, right? So you're like, "Hey, when I did my sets of five, I was using 20 pounds, well, now I have to do 15 reps, I'm gonna have to go down away." Like, it's gonna kind of take care of itself.

Katie: That makes sense. And I like that it gives the focus on the strength side. And also, that doesn't seem like a daunting amount. Especially if you are on the lower end of maybe three times per week, or even four times a week, that doesn't seem out of the range of doable for a lot of people. And realizing it doesn't need to be like 100 reps. I think often, women at least get the message that more is more when it comes to exercise where they think they're going to lose fat by just going and running on the treadmill for hours on end, which I actually think could be counterproductive, depending on how you're doing it and why.

I know for me, things that helped a lot were the nutrition side much more than for the fat loss than the exercise side. The exercise gave me the strength, but nutrition and for me consuming enough protein, I realized I had been drastically undereating protein for a long time. Turns out it's very hard to build muscle when you're not giving yourself the building blocks for that. And this seems like a common thing among women. Do you see that? You work with high-level athletes, but do you notice that among women as well, that often there's not enough protein consumption?

Andy: Yeah. Look, I deal with professional athletes that aren't generally so worried about losing baby weight, but they are definitely worried about losing fat because they have weight classes they have to be in. And so they are actually more concerned than most individual people are because they have contracts that say you will be this weight on this day. And then you have to go compete, right? You can't show up to the Olympics and weightlifting and not be on weight, you don't get to play, right? So, like, then you also have to be on the weight and do it in a manner where you can perform at the highest level that any human who's ever existed has performed.

And so fat loss is extremely serious with the athletes I work with. Like, it has to be perfect, it can't just happen. It has to be perfect. So yeah, in general, just sort of the reason why I skipped over the exercise protocol for fat loss, because it's not super important, the vast majority of successful fat loss will come from the nutrition side, you still need to train. In fact, if you look at the literature, you'll show that strength training in general contributes very little to successful fat loss. However, it contributes a lot to successful fat loss maintenance.

And so what I mean is, yeah, probably everyone listening is like, "Oh, yeah, I've gone through a phase where I lost 20 pounds or 40 pounds." Cool, how many of you kept it off? Not everyone. But that keeping it off part is where training comes in, it's very clear that that part is helped extraordinarily by my exercise of training. Getting it off is gonna be food-based, keeping it off will be food-based. And now this is when training comes in.

So it's still very important for people in those early phases to get into training, because that's where you're gonna pay the dividends of coming in. So, yeah, that is absolutely true, and I would fully agree, it's not a training. In general, I want you to think about it like this. You wanna lose fat, you're gonna have...like, you should work right?

But in general, exercise is good for your body. So if your goal is fat loss, and you're like, "What training do I do?" I'm gonna say, "Hey, what kind of training do you like the most? What's the most invigorating? What's the most rewarding?" And then do that, because it's almost...it's not irrelevant, but it doesn't matter as much, you're not gonna win or lose most likely from the training side. You're gonna win or lose most likely from the nutrition side.

So perfect example like, okay, great, do you love spin class? Well, let's go to spin class. Do you wanna look at this literature on high-intensity interval training? Well, I can show you, but do you really care about doing one type of exercise versus another one if it's 7% more effective? Well, you know, what's less than 7% effective? Zero exercise. So, like, I don't even care about those little details and differences, right? I know the literature very well, and high-intensity exercise versus strength training versus interval training versus steady state, I know that literature very well. I don't think the difference in those, the magnitude of difference between those training types matters at all for most people when you compare it to adherence.

So, like, find the thing that is the most... Is it going for a jog? Great, I could argue all day about jogging uses like... I don't care if you're like, "Man..." Okay, great. There are also other benefits to exercise that people forget about that are not just a fat loss of use, right? So it is the personal time part. It is the, "I get covered in sweat and that feels good." Or, "It is the million other things. That's the only time I have to listen to podcasts." Okay, great. "Like, that's my only time to get the sun. So I know I'm supposed to be in the sun, you know, X amount of hours per day, and I don't have time for both."

So that's... Okay great. Like, I'm not gonna go out and tell you to like hop on a getting a CrossFit class and be in a box, definitely you don't see the light for it. If you're like, "Okay, maybe when we consider all factors, maybe the best choice is for you to do your Pilates class in the park." Great. Cool. So all these things are about kind of pros and cons, and then taking a holistic approach. And not just thinking it's just all about calorie burning. Those are isolated studies in laboratories, which is cool. It's what I do, obviously, I like that, but you don't live in isolation. So you need to take the big picture and make consideration.

Katie: Yeah. That's a really good reminder and good perspective.

This episode is brought to you by Timeline Nutrition. We've all heard of probiotics and probably also prebiotics but have you heard of postbiotics? There are several major reasons these are important and thanks to emerging research, I've been experimenting with them. We know that maintaining muscle mass as we get older is critically important to longevity and enduring good health. In fact, it is one of the biggest predictors of longevity and one of the reasons I lift weights regularly and keep an eye on metrics like grip strength. Postbiotics are the active nutrients your body makes during digestion, and they are an emerging driver of this for a couple of reasons. One major reason is that certain postbiotics support mitophagy or the flushing out of old damaged mitochondria, which is really critical in the aging equation. The best compound I've found to support this is called Urolithin A and I was super intrigued when I found it. It's derived from pomegranate but it's very hard, practically impossible, to eat or drink enough pomegranate to get the scientifically proven therapeutic dose.

Urolithin A is one of the first postbiotics shown to have major health benefits and has become available to all of us. It upgrades your body's cellular power grid - giving your body the energy it needs to optimize. And clinical studies have shown that 500mg of Urolithin A alone significantly increases muscle strength and endurance with no other change in lifestyle. This is where a product called Mitopure from Timeline Nutrition comes in. They've created 3 ways to get your daily 500mg dose of Urolithin A in their product called Mitopure. They've got a delicious vanilla protein powder that combines muscle building protein with the cellular energy of Mitopure. They have a berry powder that easily mixes into smoothies or just about any drink. And finally soft gels for travel or you can use them everyday if you prefer. Personally, I love the starter pack that lets you

try all three forms and see which one you like the most. Mitopure is the first product to offer a precise dose of Urolithin A to upgrade mitochondria function, increase cellular energy and improve muscle strength and endurance. Right now, Timeline is offering 10% off your first order of Mitopure. Go to [timelinenutrition.com/WELLNESSMAMA](https://www.timelinenutrition.com/WELLNESSMAMA) and use code WELLNESSMAMA to get 10% off your order.

This episode is brought to you by Wellnesse. That's wellness with an e on the end, my line of non-toxic, family focused personal care products including haircare, oral care and deodorant. At my house, kids toothbrushes and kids strawberry toothpaste are the favorites. The toothbrushes come in a 3-pack of fun colors, which makes it easy for my kids to know which brush is theirs. The strawberry toothpaste tastes great so there aren't any fights about tooth brushing, and I love that it's formulated around hydroxyapatite, a naturally occurring mineral found in tooth enamel. All of our toothpastes use only EWG verified safe ingredients, are free of toxins, and are packed with ingredients that naturally support the oral microbiome for stronger, healthier, whiter teeth naturally. Check out these and all of our products at [wellnesse.com](https://www.wellnesse.com)

And I think, also, like, it makes sense that the more muscle you build long-term, we've all probably heard that by now that muscle burns more than fat at rest. So this is like a compounding benefit, the more muscle you build over time, the actually, in a sense, the easier it gets to maintain it and maintain fat loss because you have that muscle working for you at all times.

Andy: Yeah. What's actually even I find more interesting is, there's a very strong association between muscle mass and strength and then general physical activity. And a bigger percentage of the benefit you're gonna get long term is not necessarily because of the caloric expenditure at rest that you get from muscle, but it's because of what I just mentioned. So in other words, if getting up and putting your kids in the car is draining to you, you're very unlikely to do anything else physically active throughout the day.

However, if that is nothing to you, you're more likely to then go whatever other physical activity thing it is. oh, yeah, when I get home from school, yeah, you guys wanna go to the aquarium, great, you guys wanna go to the park, cool. Like, you'll go do more things, because doing things is not hard. When doing any little thing is really, really hard, you don't do much. And so there's these positive feedback loops that getting really strong and really fit is beneficial down the line because it will keep you active even when you're not trying to be active.

And that's where people start burning calories and start having, you know, five pounds this year, five extra free pounds that year, two pounds the year after that, like "How did I lose 15 pounds? I don't even do anything." Well, like, it's all those extra walks around. "You guys wanna ride your bikes? Cool, I'll walk around with you guys ride your bikes." Whatever the thing is, right? If you're not, you're just like, "I need a break, I'm going home, and like, gonna sit there."

And so it's all those sort of subconscious choices that happen when you're just way more physically fit that will give you benefits over those 5, 10, 15 to 20-year trajectories that really make a big difference later in your life. So another thing to think about.

Katie: That makes a lot of sense. And probably people have felt that to varying degrees in their own lives. Another thing you have spoken at length about and I've heard you talk about is hydration, which I think is maybe a key that is not really focused on enough for a lot of people. And the Galpin Equation is named after you. I don't think you named it yourself, but I think it's been largely attributed to you as it should be.

But I'd love for you to just explain that, because I also think hydration is a thing that seems a little bit obscure to people, and there's everything from like, You should drink your body weight in ounces per day, you should

drink half your body weight in ounces per day, to all these like more complicated calculations. But how do we know how much water we should be drinking a day?

Andy: Yep. So I can think about this a couple of ways. So water is really important. It's the only actual macronutrient that every living being has to consume. To tell you it's pretty important. There's nothing we know that's alive that can go without water. Animals can go without carbohydrates, or proteins, or various minerals, nothing goes without water. It plays a function in every physiological function in your body, water is there. Whether you're talking about thinking better, or pooping, or working out, all these things require sufficient hydration. The metabolism, thyroid function, all this stuff requires water.

So if that is happening, we should probably understand, okay, this is a really important thing. So a couple of ways to lock yourself into this, if you want to start with a basic equation like half your body weight in ounces per day, so if you're 200 pounds, half your body weight is 100 pounds, that means 100 ounces. That's what that equation means. All right. Most water bottles, 16 to 20 ounces.

So if you're just thinking, "Okay, that means like five to six to seven water bottles a day," it's probably better to just get, you know, something like this, some tumbler or some sort of stainless steel or glass bottle that you just use, and say, "All right, I gotta fill that five times rather than buying plastic water bottles over and over and over again, etc." Nonetheless, it's a decent place to start.

Way to think about this though is you can run a couple of hydration tests on yourself. So number one, are you waking up and peeing at night? Okay, great. This doesn't necessarily mean it's hydration. There are other factors like mouth breathing that can cause this. But if you're like, "Oh, I wake up and pee three times a night every night, "okay, great. What's that pee look like?" "Oh, it's crystal clear. It's, you know, like, it's like geyser water." Okay, you're drinking way too much water, or you're drinking way too much water at night. So what you're actually doing is you're wrecking your sleep by trying to be hydrated too much.

And so we actually...we see this a decent amount, leave or they come in, they're just like, "I feel terrible, my energy is down." I actually had this recently for one of our clients and our executive program female, CEO in Texas. And she was like, "Brain fog, probably..." She's a mother, a young kid, has a 9-year-old and a 1-1/2-old. A CEO of a company and it's going through big acquisitions. So like all kinds of pressure.

Brain fog, like I can't think probably on six or so servings of coffee a day. Overweight, energy down, thyroids like this...the whole thing, right? Sex drive in tank, just like all this stuff, right? And it was like, okay, how much water are you drinking? And she was drinking probably one and a half times her body weight in ounces a day. So, like, you're talking like 250 ounces a day of water.

And I was like, "Whoa." And we cut her water in half, and in a day, she was like, "Oh, my God, I have energy." And then like within a week, she's just like, "My headaches are gone." Like, you can kill yourself with drinking too much pure water. You can kill yourself with any kind of water. So she was in a position where it was like, all right, it was very clear to us she was drinking way, way, way, way too much water. Pulled that away, and boy, things just got better.

Other people the opposite, right? Versus like how much water you drink. They're like, "Well, I think I had water this morning." Like, okay, that's not enough. Whatever it is, that's not enough, right? So half of your body in ounces is like a decent starting place. From there then, pay attention again to the metrics, are you waking up one time to pee every night? Okay, I limit that.

If it's multiple times a night, multiple times a week, you may not be drinking too much soda water, you may just be drinking your water too late. So don't drink... Try to limit your water intake in the three hours prior to bed and kind of just sip as needed. Easy way, just wake up in the morning, there first thing you do, get water in, right? So 8 to 20 ounces, depending on how big you are. And just sort of get after earlier in the morning.

Kind of keep that stuff around, you keep your water present, keep it flavored if you need to, you'd be amazed just putting like a mint leaf in your water bottle.

The research is clear that you're going to drink more water, putting a slice of a slicing...or just throwing a strawberry in, three blueberries, whatever, like you're gonna drink more water. Number two, making sure it's visually present. You're more likely to drink more water when it is visually in front of you. So keep it at your workstation, keep a container in your car, whatever the thing is, right? Add a little bit of salt, any of those things on. Temperature-wise, people tend to drink more water when it's not room temperature. So have your ice machine ready, things like that.

So that's a number. It's not a terrible number to start off with. If you're exercising, you need to add whatever water you lost back. You can think of this as generally probably 16 to 20 ounces, you know, is part of the equation. Just get that in ideally during training. Then afterwards, some type of exercises like you'd like can't drink a lot of water during if you're boxing or sparring since like you're not gonna get a lot in. But most of the time, you can get some water. So try to drink at least 16, 20 ounces for most people during or immediately after exercise, and that's gonna put you in a decent spot.

But urine color is a really good way. So the last thing I'll say is you can just run a very actually scientifically validated system called the WUT, W-U-T. This stands for Wait, Urine, and Thirst. So in the morning, that's the W, check your urine color, and then check your thirst level. Right? And that actually will correlate pretty well to your hydration status. So if you're consistently peeing, and you know the colors, right, it doesn't need to be crystal clear. It probably shouldn't be anywhere near crystal clear. But if it's you know, dark, then okay, that's good sign.

If you're super thirsty every morning, could be just your mouth breathing at night. But if it's like, "Hey, my urine is like gold. I'm very thirsty in the morning and my weight is consistently, you know, dropped here," all three of those are indicating hydration issue. So you just drink more water. So whatever I drink yesterday, you did 50 ounces, that wasn't enough, go to 60 today. Same thing, wasn't enough. And you can just run this thing. After seven days, you'll figure out, "Got 100 ounces of water, I woke up all night peeing." Cool. "When I got the 50, I was dehydrated." So it will not take you more than seven days just checking those three metrics to figure out, "Okay, this is the number I should be at where I'm not feeling like I'm just drinking a gallon of water all day in my stomach, and I'm not peeing all night and I'm also not dehydrated." So it's seven days. You can figure it out pretty quickly.

Katie: Awesome, and I know you have resources about a lot of these things we've talked about. I'll make sure I link to those in the show notes for you guys listening who wanna go deeper on any of these topics. Another question that I feel like could be a whole other episode in and of itself, but you're a parent as well, and I'm sure it's a thing you think about a lot is, how do we give our kids the best foundation for lifelong strength? I don't know if it's true, but I've heard, for instance, that, you know, muscle and strength gained pre-puberty, it tends to have like a good effect for the rest of your life.

Like if we develop muscle early in life, it seems, on average, to be a good thing. I don't know if that's scientifically validated, but it seems like we want our kids to also have a good foundation of movement and strength in their bodies in a degree that's healthy. We don't want them like lifting three times their body weight when they're eight. But how do you think of that with your own kids? And what are some ways as parents we can give our kids a good foundation?

Andy: Well, I have a lot to say on this topic. You can guess my general opinion here, just saying when I start...one is this is just, one way, this is going to be a part of my kids' lives without us even forcing it because of, number one, this is our garage. Number two, everyone we hang out with. And number three, they see

mom and dad, they are going to see mom and dad their whole lives doing this multiple times a week their whole lives, so it's going to be normal for them.

And then it won't be very long before they start to realize, "Oh, this is kind of what dad does for his job." Like, my daughter coming out, she's like, "Daddy is a scientist, and a professor, like a doctor." Kind of. Not that kind of doctor, right?

So how do we think about it? There's a really nice resource by the National Strength and Conditioning Association. They have a position stand on youth strength training, and they go through all the science. If you ever want that for your own information, or if you need to be able to send that to a pediatrician who's giving you bad advice or know whatever, like a coach or something, and in that, it lays out all the signs by age groups. So you know, 0 to 5, 5 to 10, any specific protocols for what is safe at those age ranges in terms of what kind of exercises to do, which kind of implements to use, how much to do, how heavy how often to do it, it goes through the exact numbers of what to do, what has been scientifically studied. True things about consequences, what are not, what are fallacies of that.

So the NSA position stand on youth training. I think Avery Fagan Baum, who's just done a ton of research over the decades in strength training kids was one of the authors here, but you can Google that that's a really, really nice resource to use. So I don't know how long you want me to go on this. But yeah, like, obviously, I support it. The science is super clear there. I want my kids to understand their body as much as possible. I'm nowhere... Like, I was an athlete all through high school, I played college football.

My wife played sports in high school. And even before I met her, I was very much into physical stuff. But we took our daughter to soccer practice last week for the first time ever. And she... Well, let's just say she didn't exactly make dad the most proud of her athletic prowess that I've ever seen. She's just like, "My daughter is not into movement, like at all." So it's just like, I don't know. So I don't know. I'll be back in 10 years and I'll tell you like how we got her to do it or didn't, I don't know, like, we're certainly not going to push her into sports and stuff like that. But, like, physical practice will be a part of her life one way or the other. How much you can actually push a kid, I don't know, I haven't had to figure that one out yet, so I can't espouse to any expertise.

I do have a little bit of a cheating advantage in the fact that Natasha has a Master's Degree in early childhood development stuff and 17 years as a preschool special ed teacher. So like, we have some kid hacks in our things. We know how to get them to do things in the right way. So I just let her lead that charge, just like... Yeah, I can keep rambling, but if there's like a specific question, then that you wanna go into I can, but I obviously have a lot of thoughts here, so.

Katie: Yeah. Well, I think like any aspect of parenting, what we do is so much more important than what we say. And the fact that it's being modeled and fun, it's modeled in a way that seems appealing will probably be the 80% of that 80, 20 that really gets them to enjoy it as well. I know, personally, I never wanted to push my kids into overly specialized sports super young, like I didn't want them doing travel every weekend of a particular sport when they were little. But as they've gotten older, I've got now a couple high schoolers who are highly competitive in pole vaulting and ranked to the top few in the country. But they've chosen that, it wasn't that I pushed them into it. And it's been their fun version of movement, kind of like you said, pick the one you want and that you're gonna stick with.

Andy: One thing is very clear on that is early specialization is a horrible idea, very, very bad idea. In fact, every single year, there's a cool graphic that comes out after the Superbowl, and they go through the roster of both teams, and they go through how many of the kids played multiple sports in high school versus played only football. Every single year they do this. And the numbers are shocking. Like, you will find oftentimes not a single person on the roster who only played football. If you do, it's usually like one to two or three. It's a very small percentage of the people who specialized in football their whole life. It's just doesn't happen.

And if you look at the literature on injury and safety, and we actually have this image of baseball players to you just too... Tom House, actually legendary baseball throwing coach same thing with like Tommy John Surgery, people and arm injuries, it's very clear, it's a poor idea to specialize in sport early.

Katie: Yeah. I think I've seen some of that data as well. But for me, it just intuitively made sense as a mom, let them have fun with as much variety of movement as possible. Like, let's go to the climbing gym together. Let's go to the trampoline gym. Let's learn how to ski together. Like, let's learn how to use our bodies in all these different ways or even just played Ultimate Frisbee outside. Whatever it is, they have fun, and they learn to love movement. Kind of like the same idea of, like, read what you love until you learn to love to read, move how you love until you learn to love to move.

Andy: Yeah.

Katie: It seems like an easier parenting approach. And I wanna make sure I respect your time, I know you're extremely busy. But I do have one last question I love to ask, which is, if there's a book or number of books that have had a profound impact on your life, and if so, what they are, and why?

Andy: Well, I have a whole bunch right over here I could point to. Man, so many to choose from. I would say one that always jumps out when I get this question is "Extreme Ownership". And I will say that Carol Dweck's book as well, I'm forgetting the name of it. But it's basically the growth versus sparsity mindset stuff. And to me, those books are actually saying the same, same exact thing. This is why I bring it back up reset. One you have written by Navy SEAL and one you have by, I think she's a sociologist, scientists, or psychologists, rather. I can't remember.

Nonetheless, it's the same general point here, which is, it's taking ownership in one sense, but also saying, "Look, you need to understand how to take in information from the world and move that in a positive direction. The other stuff here is the blame game, the defensiveness, it's very much a short game.

And so, in general, you're going to be in a better position if you can learn the difference between it's my fault versus it's my responsibility to move forward. Versus like when somebody is saying something counter to what you believe, are your initial reactions going to be defensiveness or your initial reactions gonna be, "Oh, somebody knows something I don't." And that's powerful for you. That's not embarrassing or hurtful to you, that's powerful for you. You just got a chance to get better. Awesome. Your products got better. Your parenting got better, your life got better because you got shown a crack in your system.

From my sporting experience, right, this is somebody coming in and going, "Oh, by the way, you guys see you're vulnerable right here to display?" And the right reaction be like, "No, there's no way." Or it's like, "Oh, awesome, thank you so much for showing me that, I'm gonna fix that now." Cool, that's so relieving because now that problem I didn't even know existed is gone. Like, this is all stuff, which again, I think that it's the same book. It's just totally different words. And I think this is just very helpful. These are messages that we use with our kids even at two even prior to two years old. This is just the way that we handle them and try to get them through the world. So those are very impactful.

Katie: I love it. I'll link to those in the show notes as well and 100% in alignment with you about I think that's one of the greatest gifts we can give our kids is that mindset as well from an early age and helping them frame things in that way. And, of course, modeling it as well. And I know I had to do a lot of work as an adult to learn that and to really integrate those ideas into my life, but it really is dramatic how big of a difference it makes in our family culture as well.

And it has been an absolute joy to get to talk to you. Like I said, I've followed your work for quite a while, and I'm honored that you took the time to be here and share so much today. So thank you Dr. Galpin for your time.

Andy: My pleasure.

Katie: And thanks as always to all of you for listening and sharing your most valuable resources, your time, your energy, and your attention with us today. We are both so grateful that you did, and I hope that you will join me again on the next episode of "The Wellness Mama Podcast."

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