

983: The Surprising Truth About Salt, Inflammation & Longevity: What Most Doctors Get Wrong with Mara Labs

Child: Welcome to my mommy's podcast!

Katie: This podcast is brought to you by BIOptimizers and in particular, their product that holds my heart, which is their Magnesium Breakthrough. My goal this year is to continue to focus on my wellness and to create more harmony and resonance, and we all know that the foundation of health is a good night's sleep.

I talk about that so much on this podcast. And magnesium is the one nutrient that helps my sleep so much as well as so many other aspects of my health because magnesium is vital for so many things within the body, and it is nearly impossible to get enough from food anymore. And Magnesium Breakthrough from BIOptimizers is in a category of its own.

They have seven different forms of magnesium in one supplement, and since magnesium is involved in over 600 different biochemical reactions in the body, no other supplement on the market offers all seven types of magnesium in one bottle. Pretty much every function of your body is upgraded when you take magnesium regularly from the quality of your sleep to your brain function, from metabolism to stress levels, and so much more.

This is one of the few supplements that lives on my nightstand and I'm a little odd, but I take every morning because I actually get energy from it though most people notice that it's better at night. Now studies point to a lot of benefits of magnesium, including that it may help improve sleep quality, especially by supporting healthy sleep onset and have more peaceful nights.

Magnesium is also involved in stress management support and it may help maintain energy levels and positive mood while also supporting mental clearness and relaxation.

Magnesium is also important for healthy and balanced muscle tone and providing the building blocks to strong bones, and it promotes a balanced stress response, supports relaxation.

And I feel much calmer when I'm regularly taking magnesium. So let's face it, even if your 2025 resolution is not all about focusing on your health like mine is, how are you going to be able to achieve your goals in any area without enough quality sleep and stress management? Check out Magnesium Breakthrough and make it part of your daily routine this year as well.

For better sleep, better stress response, and much more. They have a 365 day money back guarantee and you can find it at Bioptimizers.com/wellnessmama and use the code Wellnessmama for a discount.

This podcast is brought to you by Hiya for children and especially I love to talk about their new greens line for children. Now, I have tasted these vitamins and they're delicious, and my kids are the ones who really love them though. And I love that they're getting the nutrients they need without the sugar because most children's vitamins are basically candy in disguise with up to two teaspoons of sugar and dyes and unhealthy chemicals or gummy additives that we don't want our kids to have.

So Hiya created a superpowered children's vitamin that's chewable, without the sugar or the nasty additives and it tastes great. My little ones love it. They especially are designed to fill the most common gaps in modern children's diets to provide full body nourishment with a taste kids love. And it was formulated with the help of pediatricians and nutritional experts and pressed with a blend of 12 organic fruits and vegetables, then supercharged with 15 essential vitamins and minerals, including vitamin D, B12, C, zinc and folate among others.

It's also non-GMO, vegan, dairy free, allergy free, gelatin free, nut free, and everything else you can imagine. I love that they test every single batch with third party testing for heavy heavy metals and microbials in a qualified GMP compliant lab using scientifically validated testing methods so you can be completely at ease knowing it's safe and nutritious and it's designed for kids and sent straight to your door so you don't have to worry about ordering.

My kids really like these and I love that refills show up on schedule with no stress. Also, again, honorable mention to their new greens because if you are tired of battling your kids to eat more greens, their Daily Greens Plus Superfoods is a chocolate flavored greens powder designed specifically for kids and packed with 55+ whole food ingredients to support kids' brains, their development, their digestion, and kids actually like it.

We've worked out a special deal with Hiya for the bestselling children's vitamin. Receive 50% off your first order. To claim this deal you must go to hiyahealth.com/wellnessmama This deal is not available on their regular website. To get your kids the full body nourishment they need.

Katie: Hello and welcome to the Wellness Mama Podcast. I'm Katie from wellnessmama.com, and I am here with two friends who I love to learn from, who are David Roberts and John Gilia, who both work with a company called Mara Labs. And in this episode we go deep on the topic of the surprising truth about salt, inflammation, and longevity.

And John is actually one of the leading experts in the world on this topic. And as he explains so well in this episode, there's a lot of things you may think you know about salt that are

simply not true or not backed in data. And he's led a bunch of really fascinating research that shows some interesting things about problems that increase when we don't get enough salt.

He talks about the studies he's been involved with, how much salt he personally consumes, the different salt status people can have, and so much more. I learned so much about salt, about the synergy with magnesium and potassium and ways to address this differently than I have been. I will personally be increasing my salt consumption as well as my magnesium, potassium, and baking soda consumption, which we touch on briefly, and which I will also be doing a solo episode on soon.

But without further ado, let's learn from David and John.

Katie: David and John, welcome. Thank you guys so much for being here. I'm so excited for this conversation.

John: Katie thanks for having us. It's good to be back.

David: Hello.

Katie: Well, I have enjoyed our in-person conversations so much and what an absolute wealth of knowledge you guys are. And I'm excited to kind of deep dive into a couple topics in particular in our time together today. The first one that is a little bit of a soapbox for me, and I speak mostly from an anecdotal place of how different I feel when I dial this part in.

You guys bring the science backing to explain probably why that is the case. And the topic is the truth about salt, which is something I think has been unfairly demonized in our society, to the point of detriment, I would argue for a lot of people, or at least when we don't fully understand it. So I know this is a big topic that you guys also know a lot about and have strong feelings about.

So to start broad, can you maybe walk us into the topic of salt, its importance and what inverse salt sensitivity is. As well as some of the misconceptions that a lot of us might believe when it comes to salt?

John: I would say the the beginning of a conversation about salt always has to be that basically we are made of salt. We have an inner ocean inside of us. And so quite a quite a few new things have been discovered relatively recently. And that is that we have a salt sink which is a place where salt is stored inside your body. And so you have some reserves there and it's held in what's called the glycocalyx. The majority of that is in your skin.

So you have a big sink that you hold salt. And it's so important that if you undereat salt it'll start depleting your salt from this non osmotic store of sodium chloride or sodium. And so Copyright © 2025 Wellness Mama · All Rights Reserved

that's a good thing to remember is that it's okay if you have a short term low salt time or a time when you get rid of too much salt. So getting your salt exactly route every moment of every day isn't as important as you would think. But if you do go without salt for long enough then you lose salt through your skin and your feces and your urine kind of no matter what. And eventually you will deplete all of those salt stores. And low serum sodium also called hyponatremia is quite detrimental.

When it gets to that point you turn on series of I would say counterregulatory mechanisms that make you try and retain as much salt as possible. And all every one of them is in the category of a negative. So classically I match them often with the drugs that are used for hypertension. So every drug that's used for hypertension, meaning the epinephrine blockers, the angiotensin and angiotensin peptide series of drugs.

All of those factors go way up when you're too low in salt. And so I personally think it's not a great idea to to be beyond a normal low amount of salt because you turn on all of these factors that indeed are age reducing. So epinephrine, aldosterone, norepinephrine angiotensin, they're all... if you in an animal model give the animal that thing, they produce hypertension and decrease life longevity. So that's sort of, that's usually how I start with it.

And I guess I should say the second part is something that most people don't know is that your kidney filters all of your blood. And so 20% of all of your blood goes through your kidney and you have to reabsorb all that sodium many many many many times a day. So the amount of sodium that is reabsorbed is over 99% sometimes 99.9%. And it just takes a little bit of counterregulatory hormone called dopamine in order to get rid of excess. So if you overeat salt by a little bit and your dopaminergic system is working okay, you can easily get rid of excess.

David: And so the whole idea of... I'm just gonna jump in. So the whole idea of eating too much salt and leading to high blood pressure, is that true? And one of the things, I mean John is really humble. He is like a world expert in salt. All of his research are on kidneys and salt sensitivity. And so he'll say that in his bio I'm sure, but he's just, he knows pretty much everything. But yeah, I mean can you get high blood pressure from too much salt?

John: So for people, basically only if you're salt sensitive. So it's 25% of the population. It's a higher percentage if you are insulin resistant. So I would say 75% of people don't have to worry about reducing salt intake. And so I think that's a important thing to talk about is that there's three classes of people. Inverse salt sensitive, that means their blood pressure goes up on the low salt arm of a study. And then salt sensitives are their blood pressure goes up on the high salt arm of the study.

And we can go into the signaling and stuff there but basically if you are salt sensitive and you eat lots of salt and your blood pressure goes up, you dramatically reduce your lifespan. And it's unknown on the other side, but because low salt turns on all these things that are known to to reduce lifespan, inverse salt sensitives eating too little salt for sure would be shortening their lifespan.

Katie: That's so fascinating and that's a bigger percentage of people than I would've expected. So from my understanding from what you said, 75% of people are not salt sensitive and actually need to get enough salt to not get hypertension. It seems like we've been told over time across the board, too much salt equals hypertension.

And it sounds like that is not only a myth, but completely opposite for a lot of people. How might someone know if they are salt sensitive or inverse salt sensitive? Is it, is blood pressure a good metric of that?

John: Yeah it's hard to do it in a study because you have to give people their exact food between high and low salt and just have salt be the only change between the two arms of the study. But I think for an individual if they wanted to try and find out if they're salt sensitive or inverse salt sensitive, I would personally suggest that you get one of these food services where you can order food for a week or so. And for diabetes they often will put together a version of the food that's low salt.

Go on that for a week and then do the same the same diet for another week on your salt back. And it's a pretty small amount of salt that's in those diets. And then of course you can do it by just adding olives or pickles or yeah to to that diet. So that's that's the way to do it. And then measure your blood pressure. And you can find out which which one you're on.

There's some shortcuts to that, but there's sort of more experimental. Like for instance I personally am inverse salt sensitive. And that's why that term is out there is because I did the studies and I was also doing the study. And I wouldn't let it rest because I was not in a category. They were putting me in with all the salt resistant people and I said I'm not the same as them. And so I'm sort of the reason why there is a term called inverse salt sensitivity because a lot of these researchers that are grounded in dogma were unable to see that category. And in fact every study ever done in low salt or high salt studies there is this group of people that you can categorize as inverse salt sensitive. But it was unrecognized till just a few years ago.

Katie: And I feel like that brings up a good point because based on what you just said, it seems like this would actually be a pretty difficult thing to study because you'd have to take into account sodium from food and so much else. So can you explain like why a lot of salt

studies or maybe this data that we base these beliefs around salt on kind of fall short and what we actually can know from the data if we analyze it correctly and understand inverse salt sensitive people?

John: I would say that the most difficult thing to do in the study is, and we have to do this, is we take the whole meal that is prepared in a kitchen, but you know a scientific kitchen. We take in the entire meal and we grind it up and then actually measure the amount of sodium in it by flame photometry. So we know the exact amount of salt that's in every single meal. And so every person in the study gets the exact same, the exact same diet.

And so that makes it very difficult. It's very hard to do that study. And I think the reason why we were able to pull out a lot of genetics from our studies is that it's so well controlled. And in a lot of studies where it's just sort of, I would say a lot of studies are just eat whatever you normally eat for one arm of the study. And then the second arm of the study is here take all this extra salt. And so there's so much variation.

And the low salt arm of the study is actually probably a higher salt than they realize cause it's actually very hard to make a meal low salt.

David: And the amount of salt that the American Heart says, it's, what is it, like three grams? And the data says it's like 8 grams.

John: Yeah, so I always have difficulty switching between all the ways that they measure you know micromoles, millimoles, grams. And so I have a little cheat sheet where I put it into an Excel Graph in order to convert between those.

But basically if you're talking just plain sodium, not including the sodium salt, 1500 milligrams is the low salt guidelines the American Heart Association says to to try to get down to. 3.4 is what I think the RDA is. And I think a lot of doctors at least try to get you down to 2.5, but the average for Americans is about 8.3. And I always bring up this one subject whenever we talk about these, is that there's gigantic studies where they measure the amount of sodium that's in your serum. And because it's so many people you can then map that number to longevity.

And then the way to look at it honestly is to say, what is the amount of sodium that is associated with longevity? And this simple metric is that it's quite a bit higher where you have longevity than the average person eats. So in serum sodium doesn't change that much. And so for it to be you know it's somewhere in the range of 142 millimole is the longevity marked you're trying you should shoot for. Whereas the average is about 137. And so if you just wanted to give general information for longevity for most people it would say you need to increase your salt.

So as long as you're not salt sensitive you'd be increasing your lifespan.

David: So what's the daily salt that we should try to hit?

John: So sodium chloride I would say around 10 grams.

David: What about magnesium and potassium?

John: Magnesium, the RDA is about 600. I think that's low. It should be a little higher.

David: 600 milligrams?

John: Yep. And then potassium is 4.7 grams. And so that's a good topic to bring up is that emerging research is you know the sodium chloride to potassium ratio is important. If you just increase your potassium slightly most people's blood pressure goes down a little bit. There's some really large studies where all they did was switch sodium that's in your salt shaker to sodium that has 25% potassium. And in very large studies, blood pressure went down.

David: And I think it's also important to, sorry Katie, you know the ketogenic diet's really big. And I've done it on and off. And when you're low carb you actually lose a lot of your salt. And so I think this was like seven years ago, I was like deep into ketosis and I started having heart palpitations. So I called John up. I'm like I think I'm gonna die. And I was like could this be cause of my salt. And he's like yeah. And so I actually had sodium, potassium, and magnesium. So he told me this mixture proportions to make and I just guzzled it and within 30 minutes I was fine.

Katie: Wow, this is so fascinating to me. And, real quick, do, what are the recommendations? Are there particular forms of potassium or magnesium that seem most helpful? Or as long as someone's getting enough of whatever form?

John: I just know what for magnesium the one that's the highest absorbable is magnesium glycinate. And so I think potassium is more whether you want to combine it with citrate or fluoride. And that just depends you know what where you're getting your potassium from and whether you want the advantage of of having citrate, increased citrate in your diet. Citrate is converted into bicarbonate and so there's a lot of people that are taking bicarbonate because of its effects on CO2 and and longevity.

David: And I mean I use BiOptimizers which has all the forms of magnesium, just cause it's just to be safe. Guess on the safe side.

Katie: I am a big fan of theirs as well. And this is so fascinating to me on especially the blood pressure connection. I would guess based on what you're saying, that I would likely

be inverse as well in that when I first went kind of paleo and autoimmune, I realized by cutting so many foods out of my diet and not adding enough salt, I was getting very little salt and my blood pressure actually went up.

It's the only time in my life I've had higher blood pressure and my energy levels tanked. And then when I started adding in enough salt and magnesium, to your point, and I think I also added potassium back then, my blood pressure normalized and I felt a lot more energetic. And that's what kind of initially tuned me into like, I don't know why, but for me at least, salt seems really important and really connected to my energy levels.

But I feel like most people have gotten that opposite type story and still kind of have that myth about salt and blood pressure. So I would love to explore what are some of the other root causes of high blood pressure? If it's not just about salt, like I could guess, maybe insulin might be coming into play here, or inflammation, or there may be other factors.

But what can people look at outside of the salt story when it comes to hypertension or high blood pressure?

John: Yeah the relationship with insulin is really important. And so if you're overweight and insulin resistant the percentage of salt sensitive individuals goes up close to 60%. And so as you lose insulin sensitivity, you become more salt salt sensitive. So in that case, if you're insulin resistant you should be more wary of the the extra salt. And the opposite is in for inverse salt sensitives. Inverse salt sensitives tend not to be overweight. And I've really heard of this classification yet, but hyper insulin sensitive. So if you are hyper insulin sensitive then you would tend to to spill sodium which could send you into that.

And this hasn't been borne out in studies yet, but I certainly feel better when I take extra salt. So fatigue is a really common feature of if you're under sodium. And you can do it, you can modulate your own sodium amounts by the combination of blood pressure and how you feel with fatigue and things like that.

David: How much salt do you take a day for, what's your, what do you aim for?

John: 18 grams.

David: I'm laughing because...

Katie: That's amazing.

David: Because the American Heart Association people would be having a cow right now.

John: Yeah, for inverse salt sensitives you can definitely take more salt. And I have to actually be careful when I'm fasting because I tend to spill even more sodium than normal, yeah.

Katie: I am really curious in myself to experiment with adding a lot more salt, actually, especially living in Florida in a hot climate. And I regularly sauna and work outside and exercise. And I don't know if this is true, but I've read that people who have either of those factors of which I have all three, can lose more minerals in five years than a sedentary person in a cool area might in their whole lifetime.

So as you were saying that, I'm like, oh, I bet I could benefit from increasing my salt even more because I'm definitely not getting above 10 grams a day. So I'm gonna experiment with that. I'd also love to circle back to the kidney connection. Because this is another area where I feel like people are told, be really careful about salt and protein consumption, ironically, because it's bad for your kidneys.

So what is the real story with that? And I even have a note from researching this of understanding poor renal proximal tubule function. If you could even explain what that is and what we need to know about our kidneys and salt.

David: Real quick just going back to your hypertension or high blood pressure exercise. I mean just the non salt related exercise. The more you exercise the lower your blood pressure will be. Alcohol consumption: the less alcohol you intake or take in, the lower your blood pressure. If you're getting good sleep you have good blood pressure. And then hydration is an important one.

And I actually try to have my water be isotonic. So I'll throw in, you probably use this too, the LMNT salt. Actually have it right here in this water bottle. A packet which has magnesium, potassium, it doesn't have what the amounts John mentioned but it's, it's some. And what that does is you absorb more water basically and through your gut.

Katie: I am a big LMNT fan too. I'll put that link in the show notes, but yes, onto the kidneys.

John: Yeah. So I guess as an introduction I have to make a disclaimer. I see all of health through the lens of healthy proximal tubial cells. So my proximal tubule centric view of the world is a little bit jaded, so you'll hear a strange notion of health from this. But when I start talking about the proximal tubules, one thing that I think most people don't realize is that it's a component of, a critical component of, health that has to be counteracted with how you absorb nutrients.

So I always put the two together, is during digestion you consume food there's nutrients in there that you have to break down and make accessible to your ability to take up nutrients. Copyright © 2025 Wellness Mama · All Rights Reserved

And then I always use the analogy of hungry hungry hippos. So the nutrients come by and then your body has selective means to take up the things that you want to keep. And in everything that's a non-food or a non nutrient goes by and that ends up in your feces. So you take up what you want to keep. That goes into your circulation. It goes to every one of your cells in your body and then those cells are producing toxins.

So those toxins are released and then you do it again in your kidney. All of your blood goes through your kidney. All the proteins that are under 50,000 kilodaltons go through. So you have to reabsorb all of your nutrients again. And so it's that double filter of uptake in your intestines and then refiltering it again in your kidney that is actually the filter that everyone says the kidney is. And so toxins flow by and go into your urine, but all the things you want to keep have to be reabsorbed. And so that's all the sugar, all of the amino acids, everything you can think of, potassium, magnesium, sodium chloride, bicarbonate.

So I say bicarbonate is what controls the pH of the body, so your whole body is dependent on your proximal tubule reabsorbing bicarbonate and it's a bicarbonate system that pa buffers your whole body. And then of course all those nutrients. And then another big one that a lot of people don't realize is proximal tubule in an adult is this sensor for oxygen. So if you don't get adequate oxygen to your proximal tubial cells, those cells are the cells that make erythropoietin. So you stimulate red blood cell production is dependent on healthy proximal tubule. So whenever I'm part of an argument is when someone perishes is it the brain or is it the heart stopping, I always say no, it's when the proximal tubules stop reabsorbing.

Because as soon as that stops your entire salt goes into your urine. You nerves stop working because every nerve in your whole body needs sodium and potassium. So you'll have essentially brain death because of nutrient depositions, so.

David: Yeah. And that's an important point that John's bringing up is that basically, it's not, the salt's just not in your blood. It's used to for the cells to signal each other. It's a communication network. So basically the sodium chloride potassium are used for cell signaling both in and intra cell signaling too. And so it's vitally important.

Katie: And I'm so fascinated by the bicarbonate piece as well. I know I've actually just started this week experimenting with that a little bit after reading some data about that. But I would love to hear your take on that. Is that something that you feel like can be beneficial? And if so, are there any guidelines related to that?

Because I just started this, I don't feel like I've have enough days under my belt to know if I feel a difference yet.

John: So I would say that the guiding principle there that I think most people are not aware of is that when you are shallow breathing or mouth breathing that you're actually getting rid of excess CO2. And the CO2 to bicarbonate ratio is really important. And so you have to have adequate CO2 in order to release your oxygen to the cells through the artery. So for proper oxygenation you actually need to have enough CO2. And so what's driving a lot of that is I guess the easiest way to understand that is that someone that I meet starts having trouble with their kidneys as they're getting older. They have starting to progress down chronic kidney disease, then the first thing you should do is take sodium bicarbonate. So it's just baking soda, a teaspoon in water, eight ounces a day.

We'll, and and many times we'll stop the progression of chronic kidney disease. And so having adequate both CO2 and bicarbonate for your pH is really important. And I guess I should plug my own paper. We are the first to find out that a sodium bicarbonate transporter in the kidney that reabsorbs both sodium and bicarbonate, there's a genetic defect in people that is the most highly associated genetic association with salt sensitivity. So when that is low, then you have salt sensitivity.

Katie: This is so fascinating. I've taken so many notes that I love that we really got to dive into this topic. I'm also excited that we're gonna get to record another episode that really dives deep into the science of supplements and bioavailability and something that I've been taking for years called Sulforaphane.

But before we put a bow in the topic of salt and magnesium and potassium and bicarbonate and all the things we've covered today, is there anything I haven't asked you or still remaining misconceptions or parting thoughts that you think are really important before we wrap up the conversation around salt?

John: Yeah, I mean just because I'm in both worlds of salt and supplements, I think one of the maybe if we wanted to have a little primer saying you know, be aware, it's coming up soon is that it's pretty understudied and unknown. The connection between supplements that are commonly taken and what they do to salt. And so maybe a little piece of information is, I was the person that discovered that inverse salt sensitive individuals on a low salt diet they, you reduce NRF 2.

NRF 2 is a really important transcription factor that regulates all kinds of things we'll probably talk about later. But sulforaphane is the best inducer of NRF 2. So even if you

were inverse salt sensitive and ate a little bit too little low salt, you could protect yourself by some sulforaphane hand so that it doesn't damage your kidney.

David: I think, is it true also that potentially more people die from too little salt versus too much salt?

John: I think it's hard because it's unrecognized. Yeah, it's hard to hard to know. But with the mortality data from very large studies, I know this is a contested piece of information, but when you measure the amount of sodium that's in urine in a very large number of people, under a certain amount of salt in the urine is associated with a much steeper gradient of death than the gradient as you're going higher in salt.

Though it's more dangerous to go lower than average in terms of mortality than it is for going above the normal amount of sodium.

David: And that's important because as people age, baby boomers first thing they do if they go into a nursing home is they put them on a low salt diet. And it's just like, what is that doing to them? So.

John: Yeah and that's a protected group of people, so it's unstudied. And so we actually tried to put in a grant this year and were unsuccessful to try and measure that in nursing homes.

Katie: That's so interesting. Well, I will, I've got full show notes that I've been taking notes while we've been talking, as well as links to you guys and your research and your products, which I know we haven't even gotten to get deep into in this episode. But we will in our follow up episodes. Please stay tuned and join me for that episode as well.

But for this one, David, John, thank you so much. This has been so fascinating. I learned a lot and I'm so excited for our second round.

David: Katie thanks so much for having us. Thanks for your great questions.

John: Thank you

Katie: And thank you for listening and I hope you will join me again on the next episode of the Wellness Mama Podcast.

David and John, welcome. Thank you guys so much for being here. I'm so excited for this conversation.

Well, I have enjoyed our in-person conversations so much and what an absolute wealth of knowledge you guys are and I'm excited to kind of deep dive into a couple topics in particular in our time together today. The first one that is a little bit of a soapbox for me, and I speak mostly from an anecdotal place of how different I feel when I dial this part in.

You guys bring the science backing to explain probably why that is the case and the topic is the truth about salt, which is something I think has been unfairly demonized in our society. Um, to the point of detriment, I would argue for a lot of people, or at least when we don't fully understand it. So I know this is a big topic that you guys also know a lot about and have strong feelings about.

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That's so fascinating and that's a bigger percentage of people than I would've expected. So from my understanding from what you said, 75% of people, um, are not salt sensitive and actually need to get enough salt to not get hypertension. It seems like we've been told over time across the board, too much salt equals hypertension.

And it sounds like that is not only a myth, but completely opposite for a lot of people. Um, how might someone know. If they are salt sensitive or inverse salt sensitive, is it? Is blood pressure a good metric of that?

And I feel like that brings up a good point 'cause based on what you just said, it seems like this would actually be a pretty difficult thing to study because you'd have to take into account sodium from food and so much else. So can you explain like why a lot of salt studies or maybe this data that we base these beliefs around salt on kind of fall short and what we actually can know from the data if we analyze it correctly and understand inverse salt sensitive people.

Wow, this is so fascinating to me. And, um, real quick, do, what are the recommendations? Are there particular forms of potassium or magnesium that seem most helpful? Or as long as someone's getting enough of whatever form.

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But, um, what can people look at outside of the salt story when it comes to hypertension or high blood pressure?

That's amazing.

I am really curious in myself to experiment with adding a lot more salt, actually, especially living in Florida in a hot climate. And I regularly sauna and work outside and exercise. And I don't know if this is true, but I've read that people who have either of those factors of which I have all three, can lose more minerals in five years than a sedentary person in a cool area might in their whole lifetime.

So as you were saying that, I'm like, oh, I bet I could benefit from increasing my salt even more. 'cause I'm definitely not getting above 10 grams a day. Um, so I'm gonna experiment with that. I'd also love to circle back to the kidney connection because this is another area where I feel like people are told, be really careful about salt and protein consumption, ironically, because it's bad for your kidneys.

So what is the real story with that? And I even have a note from researching this of, um, understanding poor renal proximal tubule function, if you could even explain what that is and what we need to know about our kidneys and salt.

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And I'm so fascinated by the bicarbonate piece as well. Um, I know I've actually been just started this week experimenting with that a little bit after reading some data about that. But I would love to hear your take on that. Is that something that you feel like can be beneficial? And if so, are there any guidelines related to that?

'cause I just started this, I don't feel like I've have enough days under my belt to know if I feel a difference yet.

This is so fascinating. I've taken so many notes that I love that we really got to dive into this topic. I'm also excited that we're gonna get to record another episode that really dives deep into the science of supplements and bioavailability and something that I've been taking for years called Sulforaphane.

Um, but before we put a bow in the topic of salt and magnesium and potassium and bicarbonate and all the things we've covered today, is there anything I haven't asked you or still remaining misconceptions or parting thoughts that you think are really important before we wrap up the conversation around salt?

That's so interesting. Well, I will, I've got full show notes that I've been taking notes while we've been talking, as well as links to you guys and your research and your products, which I know we haven't even gotten to get deep into in this episode. But we will in our follow up episodes. Please stay tuned and join me for that episode as well.

But for this one, um, David, John, thank you so much. This has been so fascinating. I learned a lot and I'm so excited for our second round.

And thank you for listening and I hope you will join me again on the next episode of the Wellness Mama Podcast.

and thank you as always for listening and sharing your most valuable resources, your time, your energy, and your attention with us today. We're all so grateful that you did, and I hope that you'll join me again on the next episode of The Wellness Mama Podcast.