Introduction to Dr. Heather Sanderson

I am so excited and delighted for today's interview. I am with world renowned researcher and Alzheimer's expert, New York Times bestselling author doctor Heather Sanderson.

She wrote the amazing book Reversing Alzheimer's Disease. If you haven't gotten this book, you are missing out on some of the best education there is and the cutting edge science and how to prevent Alzheimer's and even reverse Alzheimer's.

And she published in the in the Journal of Alzheimer's Disease, which is the top journal in the field. Her research on how she is able to reverse memory loss in older adults.

It is fantastic work. And not only that, she is just a lovely human being. I'm honored to call our friend Heather. Thank you doctor Heather say so. Thank you so much for being here.

Thank you for having me. And so we were talking off off camera a little bit. First of all, I just you've done such great work. Like just for people who have made a contribution to humanity, you and your mentor, Doctor Branson, have done such wonderful things, not only for my parents generation who are able to prevent Alzheimer's disease because because of of your work, but also our generation, because we're not going to get Alzheimer's if we're willing to follow what you have in your book.

So, so sincerely, just thank you for your work in the world. We thank you. You know, I it's I don't really think of it as my work. It's Doctor Peterson's work.

I mean, it's really the work of the caregivers and of the people who are willing to put in the effort, the time, the energy that it takes to make these really important lifestyle changes and take responsibility for our health as we age.

It's not easy. And I'm so inspired by the families who come in, who I get to work with, who I get to guide. Really. I get the easy part of the work of reading the papers, understanding some of the science, and then relaying that to interested people who are willing to do the work.

They really are the pioneers and the people who who I think are doing the hardest work to show what's possible for those who are aging and and worried about the risks of Alzheimer's and other dementias.

And so I first want to start off with this big idea. They may ask you about how you were able to reverse memory loss, in your study, for some reason. So I think the recent data is 66% of Americans of older Americans are concerned about memory loss. It might be higher than that.

And only 20% or 25% think there's anything they can do about it. And so most people think there's nothing they can do about Alzheimer's, about other forms of dementia.

And that's just not backed by science. And can you, can you share your perspective as a medical professional about what the current science shows about preventing Alzheimer's and reversing Alzheimer's and what's possible?

Yeah, absolutely. So I hear what you're saying, how so many people, they still come into my office and say, my neurologist said there's nothing I can do.

I'm sorry. That boggles my mind that a neurologist, it's their gosh darn job to know this. I've clearly I get upset about this, but that's amazing to me that a neurologist is telling their patient the wrong thing.

It's really frustrating. And it's engender is this message of false hopelessness. You'll hear Doctor Medicine say, this is we used to be accused of spreading false hope, right?

What the Research Shows About Reversing Cognitive Decline

And yet now we can see that the science has caught up to show that we can really be vague, but, confidently say there is not only not nothing you can do to protect your brain health as you age and even reverse symptoms of cognitive decline, there is an overwhelming amount that you can do to support your brain health as you age.

No matter what stage you're at, whether you're in prevention, you're in the early stages, or you're even in the throes of severe Alzheimer's, there are things you can do to optimize cognitive function.

And so how do I know this? Okay, so the research I want to break down kind of a decade of research here. So Doctor Bateson in 2014 published his one of his initial papers, basically a series.

So the way that the research world works, if you want to first take things from the clinical side, like, oh, we're seeing Alzheimer's patients improve, that's not supposed to happen.

So here's a few of them. Let's publish them. Let's kind of put our flag in the ground or stake in the ground and show people that this is possible. We're not saying exactly how it's happening, but we're just saying like this is happening.

And then fast forward in 2022, his group, led by Cat two, published a feasibility trial. They took 25 participants over three sites with Moca scores down to 19.

So this is the Montreal Cognitive Assessment, which is a way to put a number on where someone is in the spectrum of cognitive impairment. So with 30 out of 30 on the Moca and the Montreal cognitive assessment is perfect, as you go in the direction of zero, you have worsening cognitive decline.

At zero, you're essentially nonverbal. And so they took participants down to 1926 and above is normal. 19 is measurable cognitive impairment. If your mind looks like it would probably score about perfect or about 29, right.

Most healthy adults are scoring 3029 on this in 2016 above. Yeah. And you know there's some math problems. Not everybody's good at that. Some people you know don't recall some words because they're distracted.

You can meet a few and still have normal cognition. In 1992 substantial that's that's 19 is is significant. Yeah. And so they took a nine month intervention 25 participants over three sides, three different doctors and two participants with scores down to 19.

But so it wasn't so low that they were really severely declined. They had what we call mild cognitive impairment, even though it's not particularly mild.

Some people won't be working anymore. It's it's impacting their day to day life. And what they showed was at 84% of those participants improved their cognition within those nine months, 84%.

That's a huge amount that is way more than half, right? This is it means it's more likely that if you put in the work, if you do the work, you will improve your cognition.

Now, what did they do to Doctor Peterson's approach? And this is what we did in the clinical trial I published a year later in the journal The Alzheimer's Disease.

In August of 2023, we had a 23 participant, trial. So again, a feasibility trial. There was no control arm. It was just an intervention arm. We're trying to say, is this possible?

This is a complex intervention with all participants who have cognitive decline. Can we even do this? That was the

question. And so we took 23 participants and they had Moca scores between 12 and 23.

So they all had more severe. Well, they generally had more severe cognitive impairment than reticence group led by cat tubes. And we only had a six month intervention.

So we had a shorter intervention, more severely declined participants and only 23 versus the 25 and what we showed was at 74% of our participants improve their cognition in those six months.

So this is this over Covid, this over the Covid time was this, but it was how we started. We started recruiting in February of 2020. So we had to stop.

And then we started recruiting recruiting again in September. And we had some people we lost some people. We lost about 28%. I think about around 30% of our participants that we recruited.

We lost to follow up. Some of that was due to Covid. It was kind of a high. If people could improve their their cognition during Covid, when people are afraid and the news is all scary and you can't hug people and you know you have to stand far away from people in line at the grocery store.

Like, that's really impressive. That's a hard time to get healthier. Most people got less healthy during Covid. Yeah, it was wild. And I mean, it's amazing and wonderful.

And we see this consistently when people show up for six months and they really put in the effort. So what did we do. Right. So we looked at the six components.

The way I organize it in my brain and in the book is the six components of brain health. We're looking for imbalances in the system too much, too little in the wrong place at the wrong time.

And then what we are trying to achieve is, is homo dynamic balance, right? The body isn't the same in the morning as it is when you're going to bed. The body isn't the same in the winter as it is in the summer.

But how do we create this homo dynamic, resilient balance in the body so that we get the optimal function in our brains? So we're looking for imbalances and toxins, nutrients, stressors, structural issues, signaling and infections.

And what we also want to do so foundationally. So we do testing on all of those things. But then foundationally what we're doing is on organic ketogenic diet, plenty of vigorous exercise, including both, strength training and aerobic training.

And usually we want to really emphasize dual task exercise where we are strengthening our brain. We're building that muscle at the same time as we're exercising our body and getting movement.

And then we also stress management practices like meditation, mindfulness, prayer practices. We really emphasize that and then sleep. Really good high quality sleep minimum good ordering.

I see on your on your yes I got to do I like it on the middle finger better. It looks better on the middle finger I think than on a pointer finger.

The Six Pillars of Brain Health

So you mentioned me how important sleep is because what night's quality work? Like sleep. You're cognitively impaired and you've noticed that in your patients, as soon as you improve someone's sleep and go quickly going on the ketogenic diet, both of those really have a big difference on the brain.

You gave a list of six things, six imbalances. Could you say this again, slowly for people taking notes at home? I'm sure they want to get that list of six imbalances they want to be checking with with the with the medical tests.

Yeah. Toxins. And that includes three. Do you want me to go into some of the detail here? Sure. Yes, please. So toxins there's three flavors I think of them like ice cream.

Right. So there's heavy metals, there's mycotoxins and there's chemical toxins, including glyphosate or the chemical used in roundup, and petrochemicals, parabens, phthalates, styrofoam, styrofoam, that kind of thing.

With plastics. Would that be in there? I don't know how to measure for microplastics yet. I don't know that we have, direct consumer or like if we have testing that's available.

I have not seen that yet, but we definitely are looking for petrochemicals, things that end up in the water. And hopefully that'll be available soon. I like a fat biopsy.

Is the gold standard for testing for a lot of these fat soluble toxins. So the ones that you can test in urine, we look for. And then we're usually putting people on a detox program.

And with my patients, you know, if you're looking at someone over 65, they've had a lifetime to accumulate these things. And sure enough, we see them in almost all of our participant.

Well, we saw them at 100% of our participants. We saw some level of toxicity, really, 100 participants had toxins. That's sad. I think percent of the planet has toxins, right?

Because it's an umbilical cord blood. It's there are these parabens and phthalates and PCBs and like the microplastics that forever chemicals, those are in all of us because we live in a toxic world.

So what do we do about that? Right. We have our things that we can do something about, and then the things that we have no control over, right? When and when it comes to dementia, there's a really clear line here, right?

Like we can't change the year we were born. We can't change if we're male or female or what gender we were born with. And then we can't change our ApoE e status.

So we don't want to spend a ton of time worrying about that. We can't change that. There's these ubiquitous toxins in the in the world. If we want our genetic stats regarding our Alzheimer's risk, these are our non modifiable risk factors.

But what do we have control over. And that's really what's empowering. And where we want to spend our time and effort. And so we can make sure we're having a bowel movement every day.

We can drink plenty of clean, clean, filtered water and out of glass or ceramic or stainless instead of plastic, we can make sure our our liver. Oh yeah. Green juice I love it. Right.

This is this is matcha. You're a big fan of huge fan of my chat. This is matcha with MCT oil and some acacia powder. Acacia powder is a soluble fiber that feels that feeds the gut bacteria.

So this is very filling. Great. Well doing intermittent fasting and MCT oil is, you know, is is great for the brain. We can talk about that a little bit later.

But this I can have this and fast for my brain feels really good in the morning. And I can fast for a couple hours. And I just feel really sharp and good.

And it it tastes lovely with a little bit of monk fruit sugar in here. I do my my matcha with some collagen powder and then an MCT lion's mane. Theanine creamer that I love.

It's really like lion's mane and l-theanine and a creamer. What a world we live in. Oh, I know so good every morning. Do you imagine the advantage that you have over over somebody else in your profession who's getting who's going to Dunkin Donuts in the morning and getting their non-organic coffee and a donut, and you're having

matcha with fluoride free water or reverse osmosis water that doesn't have glyphosate in it.

And you got L-Theanine and lion's mane and MCT. Like, do you imagine your competitive advantage over anyone else you're you're going up against? Well, I'm a naturopath, so this is very normal in my world.

Oh my gosh. Let's I hope that becomes normal standard for humans because it was a it's tastes good. It's really healthy. And I think it was Jordan Peterson's daughter Mikayla Peterson who said nothing.

Taste as good as good, health as feeling good, feels right. So people will often trade. And we people did we you know this after Thanksgiving, people did this over Thanksgiving.

Close friends of mine said, yeah, I just eat whatever I want to on Thanksgiving. I woke up the next day. I had sore muscles. I had sore joints, I felt sick.

People will trade their health, short term health, and which becomes their long term health for food. That taste good. And the best thing in the world is waking up feeling good.

Yeah. When you start making that trade off, it's just the world opens up and then healthy things start tasting good. It's amazing. So I'm sorry I interrupted you with the enthusiasm for my matcha, which you and I both enjoyed.

You were going through that through the list of sexy went through the toxins and how there's three toxins. Heavy metals. Mycotoxins, which is mold. And then, and then the chemical toxins.

And I don't remember if you've gotten on to the next one yet. Yeah. So nutrient. So, you were mentioning this a little bit with intermittent fasting. So what we recommend is an organic ketogenic diet.

And I don't recommend that anyone's in ketosis forever. So when we're talking about macronutrients, this is our protein our fats and our carbohydrates.

So I recommend a carb restricted diet at least for a little while. If you're struggling with cognitive impairment. And really for anyone going back and forth from ketosis to glycolysis or burning sugar for fuel to burning fat for fuels, our body is designed for that.

And so really that metabolic flexibility is going to prevent diabetes, heart disease and many other, conditions associated with aging, right? These chronic conditions associated with poor aging.

And so if we can go back and forth, get that benefit of metabolic flexibility, regardless of our cognitive state, we are going to see typically improvements.

Now, I notice when I'm ketosis, I wake up earlier, I get better sleep, I get better quality sleep, I feel more ready for my day. So instead of like kind of struggling to get out of bed, groggy at 6 a.m., I'm up and out of bed by five five, 15 and I get extra time in my day.

And I also I feel more awake and more alert and and just it doesn't take that extra time to kind of get ready and wait for my mojo to kick in. So when it comes to macros, I highly recommend getting into ketosis somewhat regularly.

And if you already are struggling with cognitive decline or a loved one is, get them into ketosis for a solid 3 to 6 months to get the brain healing benefits of ketosis.

What we it is an anti-inflammatory diet. It is a fat burning diet. So you get the that detox that's associated with mobilizing fat cells. And then it also seems to improve mitochondrial function in in the brain.

And if you're burning ketones, which is the brain's preferred fuel source when in the rare kind of research setting, examples where there's both ketones and glucose available in the brain, what we see is that the brain would prefer to burn ketones over glucose and that it creates less oxidative stress, which is one of these hallmarks of aging.

When we're in ketosis versus glycolysis. So that's on the macro side. On the micronutrient side, something like homocysteine is a great example. And this is why working with a functional medicine provider or Bredesen train provider, a naturopathic doctor, somebody who can help you understand your micronutrient status or using something like functional health.

So not a medical doctor who's been trained almost exclusively on pharmaceutical drugs, doesn't understand the current science on dementia prevention and does and doesn't doesn't want to waste money on testing, even though, you know, testing is a great value because it provides data to make decisions on which to make decisions.

Right? So in the UK, there's been studies done on homocysteine and an elevated level of homocysteine, if you've ever had that tested in your number is up over eight, you probably want to talk to your doctor and consider supplementing with methyl B vitamins B6, nine and 12, methyl, methyl B12, and methyl folate.

Toxins, Nutrition, and Ketosis

And potentially some try methyl glycine, some other methyl donors to help to get that homocysteine level down. It's an inflammatory marker now only for the cardiovascular system, but also that seems to impact the brain and be associated with brain atrophy as we age.

And you and I might get the same amounts of B12 but have different levels of need based on our genetics. But so this is not about having enough vitamin C so that we prevent scurvy and our teeth don't fall out.

We're not talking about like the RDA. Right. So that we're avoiding getting really sick. What we're talking about is optimal levels so that we get optimal function and we get recovery and repair.

I just want to highlight this such a really important point to the RDA, the recommended daily allowance by the government. Some of them haven't been updated since the 70s.

It's basically the amount of vitamin C to not die from scurvy. As you said, it's not the optimal amount. And Ben Fuchs, who's a, who's a pharmacist, he, he calls it, the ridiculously, ridiculously deficient allowance.

Right. So that the RDA is just enough to not be deficient, which is not what we want. And you mentioned, Well, as it, it just how there's, like, genetic differences and.

Oh, thank you vitamin B, I knew it was going to be so vitamin B. So if you're like you need to have B12. Yes. Yes. Especially if you're vegan. You got to supplement with your with your with your B12 because it's hard to get that out of non animal based products.

But most people don't understand that. You don't just want B12, you want a whole b-complex as you mentioned, B6, b9, B12. You want all the B vitamins methylated and that's going to help with homocysteine because they're involved in making neurotransmitters as well.

So if you're supplementing with a b B12 vitamin that's try a b-complex instead. You're going to get all the benefits. And it's basically the same cost.

And so I'd really try to steer people away from just B12 because it's it's not be nearly as beneficial as all the math as all the B vitamins, that are methylated for it, for optimal brain function.

Yeah, the b B vitamins play well together, that's for sure. And the antioxidant magnesium, there are so polyphenol. There's so many nutrients and micro nutrients, minerals that are necessary for our bodies to optimally function and many of us to become depleted for one reason or another because of high levels of stress.

So as we kind of talk to these six, components of brain health having high levels of toxicity, having high levels of infectious burden, this requires more resources, it requires more glutathione, it requires more B vitamins.

And so we don't need the RDA anymore. We don't what we need. It's actually much higher because we've got to deal with all of these other things. And so if like our our body is busy at work taking out the trash and creating building proteins, building cells, there's so much to be done.

And if we're depleted in our nutrients, we're going to put things on the back burner. Right? And that's when toxins accumulate. That's when infectious burden accumulates.

And this is why I think that that injury is so dangerous for those over age 65. So my, my, my grandfather actually actually wear his ring. He's it's been a really important part in my, my development.

He was a door to door salesman who was selling vacuum cleaners. At age 79. He took a fall. And then shortly shortly after, he developed cancer. And then after that, dementia.

He worked as a dry cleaner for so many years, and it's thought the chemicals were eroding his, is that that was harmful. Plus, he dropped out of school at age 14.

His father left home and he had to take care of his family. So he went to work. So he had a low at low education, which is another risk factor. But it started with that fall.

That fall was the beginning of the end. And that fall took so many resources to repair. Right. So and then the resources weren't available to suppress the cancer in his body, and those resources weren't available to keep his brain healthy.

And so that fall was that's why falls are so dangerous. They take so much, so much our resources. And then when as we're older, we need those resources to stay healthy in other ways.

And so, for those of you out there over age 65, please make sure you're, you're not standing on, you know, chairs in the house to reach something or reach an overhead.

You can easily get a shoulder injury. You're wearing shoes in the house with a back to them or slippers with a back to them. So you're not slipping and falling.

So dangerous to to fall at an an older age because it's harder to repair yourself, harder to recover. And that we need those they need those resources just to stay healthy.

At that point. Yeah. I couldn't agree more. You know this you also mentioned some really stressful events that your grandfather went through, right? And having a fall or an injury is one of those.

And stress is something where we need again, this balance not too much, not too little. So we talked about toxins. We talked about nutrients. Stressors are something where we want to have enough exercise right.

Talk about salt prevention. What we need is this this concept of the Hermetic effect, right, where we're stressing this system so that we create more resilience.

And exercise is a great example of this. Keto a ketogenic diet, like a fasting mimicking diet is another great example. Oxygen therapy, hot and cold therapy is another example.

But exercise is, I think, the most crucial when it comes to brain health. It's a movement. We've got to get enough movement turning into a couch potato and just kicking your feet up, having happy hour every day.

And your retirement is going to lead to brain decline. And we need to stress that system both physically and cognitively. And so this I put exercise in this stress category because it's like you need enough.

So you need to push against something. You need a reason to get up and out of bed in the morning. You need a purpose and meaning. And then having doing that for community, it's so important.

Those that have meaning and purpose have a reduced risk of cognitive decline and so a lot of people are retired. Miss this. So so get an animal volunteer, spend time with your children, find something that's meaningful for you to do.

Because if you don't have meaning and purpose, you know, why do we get out of bed in the morning and people ask the question, why am I here? I'm retired. Like, what?

What am I supposed to do everyday? Just play tennis. And so please find meaning and purpose. It's so important for your for your health. It's such a big deal, especially amongst those who are retired.

Yeah, something to look forward to. This comes from Becca Levy's work. She wrote the book Breaking the Age Code, and she published the research showing that people who are optimistic live seven and a half years longer, and those who live in a society where we relegate our elders, where there is a Confucius Society or the American deaf community, has also been studied in this way, where there's a lot of respect for elders and there is, an optimistic view of growing older, that we have something to look forward to, that we're going to be revered in those that stage, unlike our sort of Southern California culture, where it's like youth is the only thing of value.

What we see is that people in those societies, in these Asian societies, in the American deaf community, they actually negate any of the risk associated with ApoE e4 positive status.

It goes away, and the people in those communities actually increase their cognitive function as they age, because they are expected to. Amazing. There's as far as optimism, you know, this great work by Carver and Chaya showing that those who are optimistic heal faster from injury, that heal faster from cancer, so different benefits.

And someone said, it's I forget who it was. It might have been Alan Watts who said, it's absolutely crazy. No. Excuse me. It was, kind of an interval.

Stress, Purpose, and Mindfulness

I think it was, Amos Erskine wrote the great, a great book, a by the by a Michael Lewis there to, they are to Nobel Prize winning economist who are actually psychologists from, from Israel that that worked at Princeton and what, Taberski said was Amos diversity said beat up to being pessimistic is insane because you suffer twice.

One you suffered the very first time because you think bad things are going to happen. So you suffer psychologically then and then if it does happen, you suffer again.

So you've you've doubled any suffering. If you're optimistic, you avoid that first suffering. And 89% of the time the bad thing doesn't happen. So you don't suffer the second time.

But you know, being being pessimistic guarantees suffering because you're you experience that that negative psychological state at least once, whether or not the thing happens that's so crazy.

It's it's a choice that we make every day. And then the other piece around stress is having some mindfulness practice. We do the curtain kriya, which is a 12 minute program.

You can find it on YouTube. It's the star Tai nam. This has been studied and there's meta analysis showing that, doing that 12 minutes a day for both caregivers and people suffering with mild cognitive impairment has improvements in memory.

The reason we're showing up here today, but also in the length of telomeres and blood sugar regulation and immune function, and in, of course, in our mood and depression and anxiety.

And so doing that totally free just 12 minutes a day, like everybody has time for that. Everybody can afford that. And it makes us really impactful. Change this profound change at the cellular level.

Would you say that again, please? I know a lot of people are to want to look that up on YouTube. Can you add, you said it. Yeah. Here, I'll spell it. It kirtan k I r t n kriya, which I always get wrong, but I think it's k I r no sorry.

Okay. I will, I will. Yeah. And then just search that on YouTube and just listen to that and close their eyes and just practice that. And that has tremendous health benefits.

You mentioned really impressive. And I love these really pragmatic, simple easy tools that we can use. So then another piece associated with with stress is sleep.

Just getting enough sleep. So seven hours minimum of sleep per night. And then I do like using a tracker like we talked about our or earrings using a watch.

The Fitbit is another one or the Apple Watch. The Apple Watch needs to be charged so they get a make sure a lot of people charge it at night and so they're not using it.

I recommend the Apple Watch. I have you seen people with it. They get text messages all day long. Right? I was recently syncing at the symphony and the person sitting next to me, his watch kept going off and I thought, why are you allowing this?

Like, this is a it's a Saturday night. Like, you've got to be able to disconnect so you can enjoy what's in front of you. It's insane to me. I mean, I think it makes sense to give it to your kid.

If you only give him a cell phone, you can say, please come home for dinner. But the idea of us receiving text messages all day long, I would find that stressful.

I want to be able to focus here with you. Like, you know, I turn my phone off so I can turn on silent so I can. So I could be here with you. So I don't recommend that.

I recommend, you know, something you don't do you think about it's not going to be beeping at you, all throughout the day. Yeah. I like the ring. It's my favorite.

And so you can see how much deep sleep you're getting and how much REM sleep. And we recommend at least 60 minutes of REM. Or, excuse me, 90 minutes of REM and 60 minutes of deep sleep per night.

And if you're not getting that, don't worry. Don't let these numbers keep you from sleeping. Just do what you can. Breathwork is one of the quickest things I've seen.

Help with deep sleep. And also with resting heart rate and heart rate variability. Those are other things that you can track on the aura ring so that you're getting that feedback and you can do these interventions and say, okay, hey, when I eat a bunch of gluten and have alcohol, what happens to my sleep?

Or when I take my lion's mane before I go to bed? What happens to my sleep when I do these interventions? How does my body respond? And how can I do more of the things that improve my sleep and less of the things that make it worse?

And so for sleep, you mentioned, a new friend of ours. I just got to meet him at a conference, which is great because I've been read his book for years.

It's Michael Bruce. He's got a new book coming out. Sleep, drink, breathe. He's fantastic. You see a bunch of free content from him on YouTube. He's asleep. Doctor.

So if you have trouble sleeping, I've been following his protocol. I'd be able to fall back to sleep by not getting up to use the bathroom in the middle of night.

So, like most adults, I wake up in the middle of the night between 2 and 5. And you said, Robert, if you don't need

to go to the bathroom, just stay in bed.

Your form. Sleep much better. Sleep much easier than if you get up, because that increase your heart rate, your blood pressure that's hard to fall back asleep.

His work is great. He's got this book will be coming out soon, so by the time it's released, this book will be out. He he's fantastic. He's got a lot of free information on YouTube if you are having trouble, sleeping.

He's one of the experts in that field. And sleep is so important because just one night throws you off. And then if it becomes chronic, I mean, it's as bad as a nutrient deficiency.

I think it's worse than a nutrient deficiency, because chronic sleep problems just impairs pretty much every system of your body. But this structure is the next component that we want to talk about.

And obstructive sleep apnea. I think if we were to aggressively look for that, to test for it and treat it in patients who are suffering with mild cognitive impairment, early or early cognitive decline, I think that we could prevent a lot of Alzheimer's from happening because what's happening is when we have obstructive sleep apnea, we're not getting air into our lungs.

And so we're depriving our brain of oxygen. And essentially it's like mild brain damage. Every night we are getting into hypoxic states. And we're also depriving our brain of that sleep.

That's so crucial to stress. So basically what happens during our REM sleep is we're consolidating memories. And we're also taking the stressful bite out of things that might have happened.

Like if you had a tense conversation with somebody during the day, at night you processed that so that when you remember it tomorrow, it doesn't cause your cortisol to spike and start being toxic to your hippocampus.

It there's a there's a softer edge to it.

Sleep, Sleep Apnea, and Brain Recovery

Now that happens in REM sleep. So we get this emotional processing happening then. And then in deep sleep, what we get is this lymphatic rinsing of the brain.

And that's when things like amyloid plaque kind of I'm sure everyone's heard, like we all have cancer cells in our body, but our immune system takes care of them, right?

We all have amyloid plaque in the brain. Only 2% of people between infants and centenarians don't have any measurable amyloid plaque or amyloid. Excuse me?

Amyloid, when it becomes plaque is when it's a problem, right? When it accumulates and creates structural change in the brain. That's when we have these this memory loss that's associated.

But we all have some degree of amyloid in that system. We get rid of it so that it doesn't accumulate during deep sleep. And if we have obstructive sleep apnea, we never get that deep sleep.

So we need to be addressing right now. I didn't know that. So if we have obstructive sleep apnea, we never get deep sleep. Yeah. Well, depending on how often you're waking, you're basically preventing yourself from getting into REM sleep or deep sleep because you're constantly the brain is is hypoxic.

It can't go to sleep because it feels part of oxygen. Oh my gosh. So not only are you not sleeping well, but you're not getting any of the restorative really sleep.

Oh my goodness that's a really darn big deal. Oh it's a huge deal. And I can't tell you how many patients I've had

who are thin women with cognitive decline.

And they literally have gone into the sleep study. And someone has said to them, I can tell by looking at you, you don't have sleep apnea because they're not male, they're not overweight, they don't say they snore.

And the next day I get the report back severe obstructive sleep apnea. So I caution you, do not make an assessment about whether or not someone has sleep apnea based on how they look.

They need a sleep study. And one thing that's happened since Covid, the technology has really improved. So there are these watches that you can wear at night so they can send you an at home sleep studying kit.

And that is a, you know, a high tech but wonderful way to. Get information. Now it's still not the gold standard, the gold standard of sleep sleep studies and sleep medicine.

It happens in an overnight clinic where you go in and you get terrible sleep, but they just want to get one sleep cycle. And then you have to figure out how you're going to get home sleep deprived in the morning.

I know it's a horrible, awful chore, and a lot of people can avoid that. If you roll in sleep apnea. So if you can get a diagnosis of sleep apnea with the watch at home and then get treatment, and all of that is covered by Medicare, if you're over 65, if you can get all that done.

I know that's a chore too, but it is so well worth it. Now, if it's negative on the watch, there's still a possibility it does not rule out sleep apnea, so there's still potential that there could be apnea.

So if you're waking up tired in the morning or you're struggling with cognitive decline, or you snore or for some reason your sleep is interrupted, maybe not for urination, but you're waking up frequently at night.

Get a sleep study. Sleep is profoundly impactful on brain health, and so you have to be aggressive. You have to be, assertive, and you need to advocate for yourself in this regard, because a lot of people will go to primary care providers or neurologists who will not mention this as a factor.

Absolutely. This is so important. So, Doctor Sanderson, I we have just a few minutes left. What are your top? So so by the way, Doctor Samson's giving us your thousands of dollars of information that you can use to save you a bunch of doctor visits.

Get she's outlined this in detail, so not outline, but read this in detail in your book Reversing Alzheimer's. So please get that book. It's a fantastic investment in your health and and your and your your family's health.

What are some of your top supplements that for people that are interested in and a healthy brain that you like to recommend to patients? Well, I love your lion's mane.

I think you've done a really great job getting a high quality, potent and a good dose, a therapeutic dose for mood, for cognition and for sleep benefits.

I take your lion's mane. I consider to get benefit from it, so really appreciate that. I also love qualia Mind, which I took some of it this morning in advance of our conversation.

So probably mine is another one that I am a big fan of. And this one is it's no traffic blend. It now contains a little bit of lion's mane, but I think taking some extra it's helpful as well.

Fish oils, vitamin D if you're not on a blood thinner, if you can add the K to so that it's also helpful for bones. And then so lion's mane qualia mind fish oils vitamin D with K2 and then probiotics, the gut brain connection being so important to cognitive function I think probiotics or it kind of if you have gut issues, maybe magnesium if you're if you're not having a bowel movement every day.

I, I have the doctor in me wants to go, well, so what's going on with you? Like, what do we need? Do we need to support your your gut? This is that your brain can be supported.

Do we need to support inflammation? You know, you can. So much of this is individualized. It really depends on who you are. And I think there are stacks of supplements that you can take just kind of out of the gate.

Supplements and Final Takeaways

But really don't miss the opportunity to identify some of these risk factors that we can do something about. So having a one size fits all, like I, I sort of reject that.

And also this idea of okay, what do I do first? If you're already suffering with cognitive decline, do all of it. Do as much as you can. Dive in fully because we're asking for a miracle.

And so we really need to pull every lever that we can and so start the supplements, do the detox, understand what toxins you're exposed to, understand if there's infectious burn and treat that get up and over that hump the way Doctor Peterson talks about it. He says.

And if you've heard him say this already, I'm just going to reiterate because it's such a great analogy if like, think of your brain as a country, my brain is done right.

And if my brain is not, is at war and you are protecting and defending against toxic invaders, against infectious invaders, you are using so much resource over there that you can't get into that rest digest and heal, state into that, regenerate and, and and recuperate phase.

And what we want is that to increase that synaptic connection and we don't do that when we're in fight and defend mode. And so what we want to do is resolve the toxins, resolve the all of the, infectious burden, get the sleep and then shift so that our microglia are going towards protection, regeneration, not attack and defend.

Right. So to do it all, do it all. It's not just one. It's you got to have a good diet. You got to get good exercise. You got to get the toxins out. You got to get good sleep.

And then supplements can help as well. You really need to do it all. If you're going to prevent Alzheimer's and especially going to reverse cognitive decline.

Creatine love creatine. Creatine melatonin. And I mean there's so many things I could we could talk about for I mean, you and I could talk for days about the things that we can do to protect brain health.

It's always fun, such a pleasure, such a privilege to be here with you. So we're listening to doctor Heather Sarazen with the world's leading experts in and reversing cognitive decline.

Her New York Times bestselling book is called Reversing Alzheimer's. It's available on Amazon or also at Barnes and Noble. I think Barnes and Noble is still around at this point.

They haven't been been beaten yet, so get this book. It's a $2,023. This could be the best investment in your health and your brain health. It is fantastic.

I have I have two copies. I it's it's fantastic. Hopefully they have a signed ones plus plus they were signed one I got I got that I got that special.

So doctor said I said thank you so much for being here. Thank you for for sharing your knowledge. Thank you for be just Joseph every time. It's so wonderful to have you.

Thank hugs. Thank you so much for having me doc. I love thanks so much.