Simple Steps That Keep Your Brain Healthy In Long Haul Transcript

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Introduction to Long COVID and Brain Health

– Welcome to this episode of the long haul chronic fatigue summit I have with me, my friend and colleague Dr. Heather Sandison and we're going to talk about how long haul affects cognition and the brain. Welcome Heather I'm so happy to have you here with me today as always. – You know, he said it's so nice to be here.

Always a treat. – Always. Always. So there was a comprehensive analysis of federal data by researchers at Washington State University University School of Medicine in St.

Louis showing that people who have had covid 19 are at an elevated risk of developing neurological conditions within the first year after infection. Now, these findings were published just three weeks ago today of the date of our interview.

So these were published september 22nd in Nature magazine. So what we're seeing in our patients is now showing in the research which is super exciting to me. Finally, right, like what we've been doing with our patients. The researchers are catching up to it now.

So I'd love to talk about what we're seeing in our patients regarding brain health. Post covid infection. – Yeah, you bring up such a good point, right? Because covid was so recent, you know, even if it was just 2020 that this happened. So the research I'm in research, we've done a clinical trial here in my office on cognition and we started that process in 20 18 and we still haven't published our results.

And of course around Covid people are trying to get this done as fast as possible as quickly as possible. And certainly in my research we had some covid related delays. But research goes at a snail's pace.

Why Long COVID Affects Cognition

What we see clinically right? Like we are seeing things like covid well before any literature has been published. And so we need to really go back to those first principles about what's going on with the the complex system that is the human body and how can we apply what we understand about health and well being and use that to help us hopefully get great outcomes even in infections that are unique to us.

Right, New or when we don't we can't name them or we can't necessarily test for them. And so as you're kind of pointing to in what you mention coming out of Washington University, if I got that right. Is this idea that like where we've been seeing this for years, a couple of years now and finally the research is starting to reflect what we've been seeing that people are having neurological issues post covid and this is part of this sort of long haul picture. Certainly chronic fatigue, you know, in the title of your summit here is fatigue and cognitive changes and those come together. Right. Brain fog when we don't have enough energy.

Our brain uses a massive amount of energy especially compared to the rest of our body when we don't have enough of that energy. It's hard to think straight, right? It's it's hard to form words, find words.

Remember where you put your keys all of these little day to day things, let alone have the executive function, right? The ability to plan and then execute on something maybe for work or for parenting or for planning a vacation like even the fun things. And so you and I have been saying this for years in our practices. And what I've noticed is that there's we can we can go back to these kind of naturopathic tenants and these ideas of complex systems science. The body is a complex system and so there's probably not gonna be a single pill, a single molecule, a single intervention that is going to get us those results that were wanting. And although we've been socialized to think we could take one pill right? There's gonna be a pill the doctor prescribes.

If they put their diagnosis had on right then they're going to get to the right diagnosis. This Latin word with an I. C.

D. 10 code attached and right is the right prescription and we're gonna be all better. Well in a complex system.

Unfortunately it doesn't always work that way. In fact it rarely works that way. And what we see is even though people have similar symptoms, they may have actually gotten there on different paths.

And so what we want, what I do is systematically go back and evaluate all those different paths to illness or disease states or imbalance that might have gotten in there. And so I I work a lot with patients who struggle with dementia. I also work with a lot with mold toxicity patients as I know you do. And the covid long haul patients also showed up in my office in droves because there weren't a lot of other places that were other doctors who were addressing this kind of complex chronic illness and people have been sick for months and it kept being sick. So what we do is we go through all of the things that I believe are primary causes of imbalance.

So imbalance is the wrong thing and the wrong place at the wrong time. Right? And this might be hormones, it might be nutrients, it might be toxins. And so we go through each of those categories and evaluate for imbalance. So I stay toxins and I've seen a handful of Covid long haul patients who felt very very healthy until they got covid And lo and behold they have radically high mercury levels. They have some of their toxin.

They have high mold or mycotoxin levels. They have high chemical toxin levels. And so that predisposes them to more inflammation.

Inflammation, Immune Dysregulation, and Toxins

And also those toxins can often suppress immune function, making it harder to recover from viruses, be it covid or or RSV or herpes or some other virus or bacteria like lime. Something that could be opportunistic like the E. B. B. Or C. M. V.

The Epstein barr virus or cytomegalovirus that are associated with mono those are often opportunistic. And we see that when people have low immune function because of stressors or toxins or something like that, some other primary imbalance then they succumb to these viruses much like with Covid.

And we see we saw this in the in the data, right? The people with comorbidities were much more susceptible to covid. So its toxins, nutrients, structure stressors and infections.

And if there are imbalances in those five categories, what I saw is that people who had imbalances, there were more susceptible to getting long haul covid.

And if we could of course help with their symptoms at at a to triage their symptoms and get them more cognitive function, we would do that right away.

But really the I think the resolution of those imbalances is what makes people more resilient for whatever virus comes along next. – Right, Thank you for that.

So we've been seeing patients both of us with complex chronic illness for years and years and years, more than more than a decade. And so we have this experience that set us up to treat people with long covid. Now we were a part of Dr. Bruce Patterson's long covid group and at first people came and it was easy to get them better.

Right? And then we noticed, wait a second, there are more people coming here in droves, as you said to write, who just can't get better with just the simple things.

And so because we focus on complex chronic illness for so many years, those are the ones who came to us, the ones who just with the simple tricks it didn't work.

And so it's exactly what you're saying heather we're looking for information because that's what it's about inflammation throughout the whole system. And we know that that Covid opens us up to other infections doing to do to immune dis regulation. So there's immune dis regulation and then there's a hyperactive immune system that

happens at the same time.

We know that toxins cause hyperactivity of the immune system. So they've got massage motivation center. Well, there's mast cells in the brain, they're releasing histamine and 1000 other chemicals.

And then the people like you were saying that have a hard time, they also have dormant infections that were they were suppressed. The immune system could suppress them. Now, suddenly the immune system camp.

So it's pandemonium in the in the immunological system. It's immune dis regulation, causing inflammation across the board. And so we're looking for all those reasons. And heavy metals, other toxins like to start with toxins as well, tell me about the symptoms that you're seeing in your patients, particularly as it relates to the brain in long Covid. – Yeah, yeah.

So brain fog is by far chronic fatigue and brain fog are by far the most common things that I've seen. But even a sensitivity to like looking at screens, right, people who weren't able to go back to work because they couldn't tolerate being in front of a screen all day. Their eyes would fatigue, they would get headaches and and that was that's been very classic.

Some well, of course, the lack of taste and smell, which is a neurological issue, right? There's inflammation and and things that are destructive to the olfactory nerve and the nerves going to our brain so that we can recognize what we're smelling and tasting. And these these sort of neurological issues are very, very common with Covid and and particularly with long covid.

Covid, of course the migraine headaches. And so I, you know, the symptoms of course are very important to me. I'm a doctor, right? So like I care about people's symptoms and I want them to go away. And yet what I care more about than anything is the why? Why are you the one that's susceptible?

Right. So many people like didn't even have symptoms from covid, Right. And then other people died. And then some people are having this long haul experience.

So why are you in that category? What makes you different so that you were more susceptible? You were less resilient. And then what we want to do is recreate that resilience by identifying the jinx in the armor essentially, like what's going on here that has created a body a complex system that isn't resilient to this virus that other people very much are one of my mentors Dr. Dale Bredesen, he uses this phenomenal analogy of like you're my brain estan right?

So if your brain were a country we don't want it oriented towards attacking and defending against these infections. We want it oriented towards like infrastructure Bill, right? We want we want to be building neurons, we want to be building connections. We want to be able to retrieve that word or figure out where we left something and that only happens if we have the resources to do so.

Symptoms and Precision Treatment Approaches

And if all of our resources like I mean like think of Ukraine right now, I know it's kind of terrible to say, but like I think if you're the president of Ukraine you're not worried about building schools and roads, You are worried about just defending from the next attack. And that that's essentially what happens in long haul covid, you mentioned Bruce Patterson and you and Eric were kind enough to introduce me to his work and I have since used that not only with covid patients but with many, many other patients looking at cytokines panels and understanding this cytokine storm.

And so the cytokine storm is essentially that getting stuck in that defense and attack mode where you are creating not just histamine but all of the inner Lukens and other side of kinds that are associated with inflammation and you can't get out of this cycle.

– We needed to defend ourselves. It's just oxidative shielding. We're trying to contain that insult the cells are, which

can then cross the blood brain barrier. – Exactly. These beget cytokines, right?

1 signal, signals the next one to be formed and then they just get caught in this perpetuating loop and a bunch of tools that we you can use to interrupt that loop, right? We are naturopaths, and so we come from this idea that like if there's inflammation in the body, we shouldn't suppress it. And when we were in training, suppression was like a bad word. That's the natural, the natural state of things, the natural system. However, there are times when that signaling gets out of control and out of hand and so interrupting it at least temporarily.

So the body can get a break that those signals don't continue for more. That is where it's really exciting. So we use in my office, we use a lot of IV, quercetin. We have patients come in with long haul covid who like, oh, I'm having, I'm flared today. I'm even worse today because I, you know, now I'm more sensitive to foods or now I my energy is so low or something triggered me. I'm even worse.

They come in and they leave soon after like feeling like themselves again doesn't last forever. But at least they get a little bit of a break. Plasmapheresis is another way to get those cited kinds out and then as you well know, Bruce Patterson's work around Rantisi's measuring grantees and then using kind of unique drugs like maraviroc to help interrupt that pattern, reduce, reduce the inflammation and then of course, things that we've known about and had in our tool belt for years like curcumin and fish oils and especially the pro resolve ins and sometimes even and Bruce Patterson's work is really about not using steroids, but sometimes in my practice I have found that just a little bit of steroid goes a long way temporarily. And so having that, that really wide range of tools as you of course have as well, so that we can decide what's the right thing for this person. And then of course, now having the testing to say, okay, you know, Mayor of Iraq is not, it's not gonna be appropriate if this person doesn't have elevated grantees, but it is about some other in inflammatory pathways might be targeted by a different intervention. And so let's get specific, let's use precision medicine. Let's understand what's going on for the individual in front of us and get them the relief they deserve.

– Heather. I'm having so much fun on this interview with you because we we have, we have a similar practice, we have a similar mindset when it comes to medicine. So I just always enjoyed the interviews, we get to nerd out together just enjoying, I'm having so much fun.

So, you know, we have very, very, very similar approaches, what I'm finding helps people I want to cut that loop of inflammation right? I'm finding the peptides are helping so quickly more quick than anything else. And then that allows me to get in and and start to treat the infection because I know once I start to treat the infections and once I start to detox and I know you know this too there's gonna be more inflammation.

So it just comes with the territory, increased inflammation with detoxification and the killing of infections. And so we don't want to add further inflammation to these patients. So um starting with the immune modulation putting on nice band AIDS which you I think you said in other words like using a little bit of steroid if you need to sometimes we need that band aid.

– Right? And and mast cell stabilizers as well or what the band aids. Even if we're using things like Diego like natural therapies the quercetin the D. A. Oh that's not going to stay stop everything from spinning out of control. Right?

It's just gonna do that temporarily. We also use some antihistamines like diphenhydramine or Benadryl Pepcid. You know that there's a lot of things that we can use a few different mechanisms that we can go after to reduce those mast cells from being formed. However really I think fundamentally what it comes down to I mentioned stress as a primary cause of disease and you mentioned mindset and that we have similar mindset mindset and where our brain is, we don't if our brain is stuck in that defend and attack mode, it's not going to be our ally and healing as well as it could be.

And so we really need to shift the brain. I'm I'm sure that you've seen this um I don't know that we talk about it enough, but the pattern that I see is that people who are most susceptible to long haul covid to mold to this kind of hyper vigilant state.

This physiologic hypervigilant state typically experienced early childhood trauma and part of the healing path and so that we can get away from using band aids and really get to a new a new like set point in terms of our health requires some brain retraining and I am a huge fan of Ashok Gupta's work of Annie Hopper's work, the DRS and so I I almost like won't work with people who aren't willing to do that at this stage because my confidence goes up so much when you bring that brain on board as an ally, not to say this is all in someone's head, I never want to, I never ever want to suggest that, but so much does happen in your head and then we want that working with us, not against us. – Yes, so it's super important, I agree. So we've actually Ashok Gupta is part of this summit actually interviewed him and you know, it's so we find it so important as well.

Brain Retraining and Nervous System Regulation

We used to use any hopper's a lot more as well. But these patients who have had a lot of trauma, we're finding that they're actually doing better with – The group to work.

I have the exact same clinical experience and well hashtag on my reverse Alzheimer's summit. And we are hoping to partner on some research in the future to look at using the group to program for dementia.

Because it really that mindset that that brain retraining that limbic function, that parasympathetic, sympathetic balance is just critical to help, no matter what you are treating, no matter what – It can lead to dysautonomia right? That that being stuck in the sympathetic nervous system, we get vagal nerve irritation, well that controls the majority of our organs.

And so these patients have dysautonomia could be maybe they get vertigo or or they get G I get G I. empty issues of the stomach or the intestines, motility issues, migraines and I I like to bring up the symptoms a lot because people don't know they have long covid heather.

Do you find that people come in and they say I've got all these new symptoms symptoms, but I don't know why and I have to bring it to their attention.

Right, I think this is post Covid, is that correct? – Yeah, – I won't be saying Yes. – Yeah. You know, I'm so not focused on what we call it. Like how do we create balance in you so we can call it whatever you want. You know?

And I were sort of outside of the insurance system. So I don't I don't focus on labeling things too much but certainly creating those connections. Right?

You and I both have these pretty long intake process is right. I won't spend less than 90 minutes with somebody when I first meet them because there are so many connections. So many dots to connect.

Right? And like what the question just opening to question what was going on with this started and when the answers Covid it's like, okay, that's clear. – I don't think about the spike protein and what we can, you know where where that could be stuck because if it was after Covid, I wish we could test for the spike protein. But that's when Patterson's test comes in, where we can look for rantissi certain inflammatory side of kinds that that can make us think about the spike protein being stuck to the endothelial wall and that's when Maraviroc can come in or sperm 18 is another one that helps remove the spike protein.

– One of the amazing things about Covid, you know, obviously tons of awful things. I personally know people who passed away from Covid really and the isolation I think I'm I work with, like I said dementia patients and the isolation that people inside you're living facilities in particular had to go through, not to mention everybody outside of institutions, but just the isolation associated with Covid. I mean so much of it was so horrible, but one silver linings I think is around this conversation of chronic fatigue is there were there are a lot of people who've been sick for decades going like it started with the virus, I had a virus and I've never recovered from it. And so Covid is not unique and that there's this long haul kind of syndrome exactly happening for a long time and all of where people have had no explanation for like why, why am I so sick from this virus I had in 2008.

Right? And hope that because Covid was so clear, right? It was unique to everyone. Lots of people got it. There's

this massive disparity in terms of how people reacted to it. And so again, like this conversation that it's the host, not necessarily the pathogen right? We create hosts that are really resilient and that goes back to read reducing toxins, you know, balancing nutrients, making sure stressors are balance that our mindset is where it needs to be socializing all of those, not just the me but like the we component of like what are what are my social dynamics and then structural components of like do I have sleep apnea?

Is my airway open at night and that's going to suppress lots of things including oxygen flow to the brain of course, but also immune function. Is it gonna be as robust if you don't get good sleep at night and then infections that infectious burden if we if we travel a lot and we or we have animals that we've picked up parasites or we have dental infections in our mouths.

Things that might not seem like they're debilitating day to day, but that kind of tickle or irritate our immune system in a way that reduces global immune function that's going to make it's more susceptible.

Dementia Reversal and the Marama Model

And so cataloging these, going through them systematically so that we can understand what are our susceptibility is. I think it's really what's most important in my opinion when I see someone with Covid.

– Yeah, mine too. Whether we practice so similarly, I just I this is why I always love talking to you. You know, it's really going through each system, finding out what the terrain is, what the terrain is of the person's body, their got their sinus health. All of that as you well know, relates to the brain.

The dental infections. Like you said, the toxins, the co infections, the concurrent infections, infections they may have had before that got stirred up due to Covid the brain health. What I wanna do is segue to talk about into talking about Marama heather and what you're doing because you're offering a very important service. And frankly I haven't seen anybody else offer what you're offering, – Somebody else would write, I'm still confused why nobody is imitating us because the world needs this, right? So the senior living industry, I what I did was um I mentioned Dale Bredesen is a mentor of mine.

He wrote a book called The End of Alzheimer's and I was quite a skeptic because we trained a little bit overlap, I was right behind you, but we trained a vast ear together and um I was told over and over again, very well meaning very well educated instructors that there was nothing you could do for Alzheimer's that there was nothing you could do to reverse dementia and to suggest otherwise was really to do harm would be to give people false hope.

And so all you could do is kind of refer to neurology and wish them luck. And then I heard Dr. Bredesen speak and he he presented this complex systems science approach, he didn't call it exactly that, but he basically said, instead of assuming it's one thing what if we look at all of the whole, he says the holes in the roof, if there's 36 holes in the roof and you patch one, you still have a leaky roof. So again let's systematically go through anything that might be impacting the brain and resolve it and in and when he did that, when he applied the sort of functional medicine naturopathic approach more comprehensively.

Then I had been trained to do it, they saw reversal of dementia. So I came back to my office after being in his training again a skeptic but very open because it made common sense to me, although it wasn't common practice.

And so I started implementing this with people who are coming because I was on on his list. So people started arriving in my office and I saw absolute miracles happen.

I saw people with late stage dementia getting better, not necessarily going back to work, but proving to me that the impossible was possible that they could and when I saw that happening for people with late stage dementia, I mean obviously like how else could you not think like well then what's possible for people that are in like prevention mode or like early stages where they're just starting to notice decline.

And so I um saw patients first a couple of years doing that started to gain kind of a reputation. And then I had people asking me, where can I send my uncle or my dad or my mom, she has dementia and I can totally relate to

this. Like I'm her daughter, I want the best for her, but I've got kids to manage. I've got my full time work, I've got my house to manage, you know, we got stuff going on.

I got a marriage to keep like if my mom's gonna move in with me and I'm gonna take on this Bredesen protocol, like it's just not possible. I can't do it.

Where can I sent her? So I started looking around and there was no one in any of the senior living communities looked at like worldwide who was offering an immersive experience in what we know from the science is the best lifestyle and brain health.

So of course I was like, how hard could it be? And and so we did it. I I was just like, alright, screw it. Let's do it. Like nobody else is doing it. This is an industry that has a pretty low standards. So like even if I don't get it totally right, like we'll at least be offering something a little bit better and it is so much fun.

It's actually a blast. So people move in and I like, they're almost like wilted flowers when they move in and then we'll just like watch them bloom. It's so cool.

– Heather, I can see the joy on your face, you're talking about this and how moved you are by this. It makes me so happy to see you. – It's like kind of like this like duh. Like obviously we should be putting the best that we know about for our elders are at the height of their wisdom and experience, right? They have so much to offer us and if we just park them in front of TVs and feed them cake and cookies, like the worst thing for their brain then they're not gonna be able to like give like we don't get that intergenerational wisdom transfer, It's this total wandered resource.

And so I have essentially dedicated my life to making sure that there are better options for people as they age. And also, you know, just from a societal perspective, like we choose organic every time every single time and we have a non toxic living environment, we have organic mattresses, organic cotton sheets and towels and all that because and we obviously we recycle we compost because I believe that, you know, especially at an institutional level, the model that I would like to create is one that's sustainable, not only for individuals, but like for the planet that that we're not going to get out of this alone, right? Like we need some across every, across industry, across, you know, not only to be serving ourselves, but like future generations, how do we make sure that there's solutions that those seniors can help us come up with and then also how can we do this with integrity so that we're, you know, we're stewards of the future. So um that feels that feels good and and I'm hopeful, like I said that more people will imitate us and we're working on some some pilots in terms of um expanding and hopefully even by the time this interview goes live, we'll have some announcements about having more space available.

We had a waiting list for the past year, year and a half. And so we've been working hard on creative ways to expand. – Fantastic Heather, tell tell the audience about a typical day for – And we're also bringing on some tech options for people.

So please, you know, if you're interested in in solutions for memory loss and cognitive decline, we're hoping I would love for the senior living industry to like be completely obsolete.

And everyone stays home in there in the fabric of their their community, right? Like working with their families, with people they love and familiar places. And so what we've created is a Marama at home program and what it is is the typical day at Marama just recreated at your home.

So what it starts with is in the morning we just check in with you and see are did you take your medications and supplements as you well know the supplement program when you're on one of these journeys can be I think of it like contortion is um there's just so much to get in throughout the day and morning meds. Like we want to just check in.

Did you get those? Did you take care of oral hygiene? We mentioned that that, you know, dental infections can be a causal issue when it comes to dementia, when it comes to inflammation in the brain.

A Typical Day at Marama and Lifestyle Support

And so we want to be and and also of course cardiovascular risk, cardio mes and and stroke risk. So we want to make sure that you know we've done those oral hygiene like routines in the morning, done the med routine. And then I encourage people to start with like a meditation or something similar. And then breakfast we have an organic ketogenic diet. So breakfast, lunch dinner and then two snacks throughout the day at Marama and also through the Marama at home course where you get recipes and stuff that is all organic. Well it's all ketogenic.

And then if you choose to buy organic it'll be organic as well which I encourage so that we can reduce that toxic exposure. And then after breakfast we encourage a walk.

So at Marama will do a 90 minute walk up to 90 minute walk up the hills down the hills. We want it walking itself isn't enough to reverse dementia. But if you can push yourself a little bit if we can add things like cognitive engagement while you're exercising these are dual task exercises. If you can add some strength training by carrying weights or something like that or add a social aspect by doing with friends.

This kind of ups the ante on how much benefit will get from that movement. And then after after the walk at Marama we typically move in what we have a snack at 10:30 a.m. And then typically move into some sort of creative activity and sometimes it's it's social engagement where we, you know, we think of, you know, October 28th and 1945 like where were you on this day?

What was happening in the world? We talk about the history and then sometimes October 28th is someone's mom's birthday and they start to share a story about their mom or the anniversary of the wedding they share about that.

And so it helps the group at Marama, whoever is living there to engage with each other and connect socially, which is really sweet. – I feel like I'm hearing you say that memories are being extracted without them even necessarily knowing it's happening actually.

– It's very natural. – Yeah, yeah. – And memories are created to, so like right now it's October so last week when I was there this week, I guess that was then the residents were painting pumpkins, right? And they were working on this like crocheting project that was very fall themed. And as we go towards the holidays, they will be, they will be working on gifts and making gifts for their families.

And these are really fun things that we do that are creative and engaging and that everyone does together and we have enough staff that they stay engaged.

So understanding what motivates people and how their behavior is affected by how we interact with them is really important. So we have one resident right now who he loves to help. So if you're like, hey, sit down, he won't sit down. But if you're like oh the person next to you really needs your help. He will sit down and immediately and start helping them and engage in what he's doing. There's another woman there who if you tell her oh no don't don't walk away Rose, we're gonna miss you.

She will sit right back down and be engaged. But like knowing the personalities of who we're interacting with is really important so we can keep them engaged and we have enough staff that like that we we do that because it's very easy and most senior living facilities for someone to be like oh there's a napkin folding class, it's also down for two minutes.

Get bored and then I'll walk off and if there isn't someone there to sort of redirect and re engage it's not very helpful. And then so that goes into lunch.

Then again we have our organic hello lunch. That's usually the heaviest meal of the day because dinner we want to have our last bite of food at least three hours before before sleeping before laying down so that we're not digesting during our sleep.

And we can get much better sleep, much better quality sleep. So after lunch um we typically go back to that activity whether it was you know paper mache or painting or whatever the conversation was or brain games um gardening.

Sometimes people will have a P. T. Appointments like physical therapy or occupational therapy will be by somebody will get acupuncture an I. V. In the afternoon.

And then after the 230 snack which is sometimes it's just like green juice like or you know some hard boiled eggs or deviled eggs or something like that.

Other times it's it's something like guacamole with like cucumber chips or something. There's lots of fun snacks they have over there. They're so delicious.

I always aim to be there at meal time because uh afterwards we have something called, we call it the casita but it's essentially like a circuit of using red light therapies, contrast oxygen therapy. People if they don't have pt or ot appointments, they'll do their exercises together like with the group and they're just kind of all set up in a circle in Arkansas and people go from the rebounder to the sauna, to the bio mat, to the live 02 machine, to the rower, to the juve light to the highlight.

And so they kind of just getting a little rotation and cheer each other on and it's it's really fun and sweet. – Get excited over that. Right excited by the toys and the I do, I don't know I would you're making me want to go there when I get older but I don't want dementia.

– That was kind of what I thought like if I could create a place where I wanted to hang out and live like maybe we could convince people with dementia to hang out and get better.

– I mean what a special place and what a special thing you created that really is a missing key for older people who are suffering from dementia. – And I what I want more than anything.

We only have this one facility right now in San Diego. And what I want more than anything is for people to know that like this suffering associated with cognitive decline, whether it's from long haul covid or even if you have like a po E and you are at risk for developing dementia, Like it's not that there's nothing you can do that's actually factually accurate and everyone should leave.

Hopefully this conversation, understanding that not only is there something you can do, it's almost overwhelming how much there is that you can do to enhance cognitive function.

And just getting started is the key. I have the most confidence.

Clinical Results and Closing Thoughts

We did a clinical trial in my office. We took 23 participants through six months of the clinical intervention. So this is my in my clinic, not at Marama at the residential care facility in the clinic that I have that's like yours.

We recruited these participants and then did six months of aggressive medical intervention and also lifestyle rehab kind of stuff. And we saw that the vast majority of the time people reverse their measurable cognitive decline.

I'm most confident when they are doing this earlier on in the disease process. So when they're MOCA scores are higher, their cognitive function is higher and when they dive in fully, so they're not just dipping their toes in the water like kind of making their diet a little bit better. But they're fully committing to taking the supplements, getting on the hormones, detoxifying their house, detoxifying their bodies, taking you know, taking all this stuff, doing all the things getting on a ketogenic diet and increasing their exercise.

That's when we see like real, real profound change and it's everyone should know that that's possible. It's not for everyone. It takes a lot of work option is going down the path of dimension Alzheimer's and losing your dignity and living in a senior living facility that might not be like Marama or doing the work of maintaining cognitive function. I

mean I would choose all day long doing the work.

– Me to, me to. Thank you. Thank you heather for what you're doing for people with cognitive decline. Thank you and thank you for being on our summit.

– It's such a pleasure always to hang out with you, Nafysa. And so we need more of this and then you for getting this information out because as I said, everyone deserves to know. – Thank you so much