Introduction and Dr. Danu2019s Background

Welcome to this episode of the Reverse Alzheimer's Summit. I'm your host, Dr. Heather Sanderson. I'm delighted to introduce you today to Dr. Dan. He is a board certified family medicine physician and also a certified functional medicine practitioner through the Institute for Functional Medicine.

He has also trained with Dr. Bredeson as a Recode 2.0 provider with Apollo Health. I invited him on the show today because he has had some amazing results with his dementia patients, and I want him to share with you so you're not just hearing it from me.

I want him to share with you some of those stories and his approach to getting the most out of Doctor Medicine's protocol and functional medicine in general.

Welcome, Dr. Dan. Thanks, Heather. Thanks for having me. Glad to be here. So tell me about your kind of segway into this world. How did you go from M. D.

trained to becoming an Apollo certified practitioner, helping people with dementia? Yeah. So my path to finding functional medicine may be different than some other, as I was trained as an allopathic physician and went to regular Western medical school and was practicing in a rural clinic in rural Colorado doing full spectrum family medicine, and was just becoming exceedingly frustrated that I wasn't really helping a lot of people.

I was having really short visits, pushed to see more people, you know, 15 minute visits with individuals and was just prescribing medications really, and realizing I was treating symptoms, but not really getting to the root cause of of the disease process.

But I was never really taught about that. Like, how do I address the root cause of disease process? And I remember it was actually through a GI conferences where I got started.

I had a bunch of people who were seeing me with irritable bowel syndrome problems and these gut problems, and they had seen GI and they seen me and they were just on kind of medicines to stop their diarrhea.

And that just got to be more. And I came across the AFM GI conference and I went there and it was just eye opening and and I just thought, wow, this is a whole different approach to, to medicine and really the way it should be done.

So that was my introduction to the, to the functional medicine world. And there I just started doing one or two of their conferences each year and trying to incorporate it into my practice as much as I could.

But then of course, in a practice where I only had a ten or 15 minutes with people, it's really hard to do that. So I branched off on my own and and went to work at a concierge practice where I have more time with people, where I got to really use functional medicine more.

Discovering Functional Medicine

And, and now I have my own functional medicine practice where it began as a general functional medicine practice, taking care of all different types of problems.

And I still do to some extent, but at this point, really 90% of the work I do is in the realm of working with people with dementia, either who are suffering from dementia or have a strong family history and want to prevent dementia.

And that's the work I love doing. Now, the most. Me too. So thank you for joining us to share that story. I think all

doctors, right, we get into this because we want to help and many people share that experience and many doctors share that experience of the conventional medical system and patients, too, of it being so dissatisfying to only have those 15 minutes together.

And sometimes it's 7 minutes. Right. It's such a short interaction. And really the tool belt is so limited. And in the case of dementia, it's just, quite frankly, just depressing, right.

How little there is to offer from the conventional perspective, despite the billions and billions of dollars that have been spent and the countless hours of smart people, it's time to find a solution for this.

And yet here we are sitting on this side, having been trained by Dr. Bredeson getting the benefits of a functional medicine, I think probably both personally and also seeing just how satisfying it is to deliver in clinical practice and wanting to get even more people access to this because it works.

So can you describe like a patient or two who've you've seen benefit from this approach with dementia? Yeah, definitely. So I've been working with individuals with different iterations of the Bredeson Recode protocol over the past seven or eight years now.

And, and it's amazing that still our knowledge continues to grow and our are different interventions that we have and things we can do with people. We continue to learn more, which is really great, but earlier on I can recall a gentleman in his mid seventies who came to see me with his wife and he was having such a degree of problems that he had to stop working.

They had they had done a lot of work where they went out and and went to different fairs and sold things. And so he would staff one of these booths where they would sell objects and he would explain what the what they were selling and collect money and give change.

And he was unable to do any of that. And we're doing some of the root cause analysis. We found that there was some underlying inflammation and diabetes that he had had the underlying root cause of this.

And with him taking the steps that he needed to do to correct some of his diet and diabetes and addressing some of these underlying inflammation processes, it was pretty amazing that six months later they came back and saw me.

We, of course, communicated in between that time, some time, but he came back and saw me and his wife was like he was giving correct change at the last fair that we went to and talking with people when he was withdrawn and not wanting to interact with people.

And that was that was one of my earlier experiences where I was like, wow, this is I did this was somebody who I didn't do a ton of things with. And I saw this amazing response.

And and I've worked with many patients since, and not everybody gets that great response in six months time. But that was a really great eye opening. That always strikes me as one of my first big successes several years ago.

And then I have where I was just on before getting on with you today. I was just on with the client I started working with just a month ago and she's in her mid seventies and has a MOCA score of around 2021, has been having cognitive problems that have been worsening over the past couple of years and not really having found anything that was helping her discover.

The Dr. Brennan Center reading his book is while her husband did and came to me. And so already she's doing great. She's there really motivated getting into ketosis, addressing some inflammatory issues again started her on some hormone replacement therapy or some different nutraceuticals that she's on.

And it's been this was our six week follow up and already they were telling me today that she's repeating herself less, that her memory seems to be a fair amount better.

She still has short term memory problems, but but already noticing in that short of time some improvements.

Dementia Patient Success Stories

So so those are those are the things that give me so much joy to to experience those sorts of stories with people. I'm sitting here just doing like a little happy wiggle because these are the this is why I dedicated my career to this approach and to getting people access to this medicine is because I saw the same thing you were.

And it's it's so fun when I don't feel like I'm the weird one, like sitting here in San Diego, the only person seeing these results to hear that you're experiencing it, too.

It's just gives me even more energy, though. I get this information out to share with people what's possible for those suffering with Alzheimer's. And, you know, you were mentioning people that are fairly advanced.

You know, they've got severe, severe dementia, but they're it's affecting their daily life. They're repeating themselves. They're unable to calculate change and they get that back.

Now, imagine if it was very first indications, like when people noticed that they're not their brain isn't working the way it was five years ago or ten years ago or the first time they start repeating questions, if we could intervene, then it's so much less effort, so much less work.

I get so excited when I get those patients who contact me because unfortunately I do have a lot of the patients who contact me, who come to me, and they have, you know, pretty, pretty advanced dementia.

And for them, it gets to be so much more difficult and and part of that is because the the work to employ the bright, insane protocol and the RICO protocol takes a lot of lifestyle changes and motivation like, you know.

And so it's hard if you don't have the the wherewithal and the recognition to be able to do that, then oftentimes it's the loved ones who feel like they're forcing this program and protocol on somebody.

And it can be, you know, cause conflict in the family, which is why morale was wonderful and people can come there and do that. But in a home situation, that could be extremely difficult.

So for those people, it's, you know, it can be a struggle and I would say that my experience with a lot of people, though, who do have moderately advanced dementia, even despite those challenges, my experience overall is that we at least stabilized their dementia and they're able to stay home, which I take as a win, even in and of itself.

The fact that I have worked with somebody for four years and they came to see me with a local score of 12 and four years later there's still like a 12 or 13 and being able to live at home and still be able to recognize their family and interact with their family because typically you'd see a loss of one and a half to two points each year.

And at that point in time, somebody would maybe need to be in a nursing home facility. So even that is so powerful. And I it's sometimes it's hard to make people realize that when they're like, we've been doing this for four years now and we're not improved.

But to to really say, but what you've seen is really great still. But yeah. Well, don't tell anybody like don't tell my investors this, but Marama, my goal is to put it out of business.

If we could prevent people from ever needing memory care, that would be success. And I get that. That's not a short term goal. That's a long term goal.

This is going to happen with people who are in their forties and fifties now that they never get dementia. If everyone can hear the stories from your clinic, if everyone can know that there are options and there's an overwhelming amount of things that we can do to prevent and even reverse cognitive decline, then we can do this.

We can turn the tide of this epidemic. And and people won't need to go down that path of moving to memory care. No one wants to leave their friends and family and loved ones and go into an institution.

No one would choose that. In fact, I think that's part of why we don't talk about this much is because everyone's sort of in this like, Oh, if that happens to me, shoot me or you know, hahaha!

Or you know, we don't want to think about it. We don't want to even consider that we might become that kind of burden to our family, that we might be someone losing our dignity and yet having this conversation since earlier on, there is so much that we can do.

You've mentioned inflammation and you mentioned the ketogenic diet. And I know vascular and kind of circulatory health is another passion of yours. So I want to talk about it all.

I feel like I could talk to you for days, but let's dove into a little bit of like the how to what do you notice patients, your patients getting the most out of if they can like people ask me this all the time and I always kind of refuse to answer it.

Now I'm going to do it to you. If you could do one thing, what would you recommend or do? Well, that is hard, Heather, because I guess like everything I would say overwhelmingly, if I could do one thing for the majority of patients I see, it would be dietary interventions and getting people on a lower carbohydrate, higher fat ketone flex 12 three diet, which is not a typical ketogenic diet, but a diet where you're getting a lot of phytonutrients from vegetables, healthy fats, healthy proteins from grass fed animals.

Now, I have a lot of clients who come to me who are actually already doing that. And so for those people that may choose something different right now, and if I have someone who is diabetic, then that would by far be the first thing that I think we need to do.

But I have some clients who come to me who their blood sugars are great, but they actually are overwhelmed by toxic exposures. They've grown up on a farm in rural Colorado where they sprayed pesticides all the time and they have high organophosphate levels or we have mold toxicities.

And so for those people, it is different. So so of course, it is an individualized approach that we use, but I think dietary interventions are definitely up there as as a number one that we need to be looking at for people.

I have a passion for a lot of functional medicine, but I have a passion for vascular health and cardiovascular health and brain health. And I think they just they're really just intertwined together.

So what I what I love about, you know, I could take the Recode program, Doctor Brennan instance protocol and I could pretty much use it on a patient is coming to see me for concerns about cardiovascular health and having a severe family history of cardiovascular disease or having personal heart attacks and stents.

And I could pretty much use that protocol because it's a great functional medical protocol to heal the body. And when you heal the brain, you're pretty much healing the vascular system, too, there.

And that's what's great about functional medicine is if we're really doing a good job at addressing all of these symptoms, these systems together, then we're optimizing health for the brain, for the heart, for the blood vessels, for our all of our organs to function optimally. So that said, there are some nuances and different things that we can look at and do in between.

So I do for many of my cognitive clients who I'm seeing, we do explore this vascular area, which is one of these subtypes that of of Alzheimer's disease.

And so when I approach people, I, I am utilizing Dr. Dale Reddington's format in the work that I do. So I am looking at people, I work very closely with Apollo Health also where I'm able to utilize some algorithms based on labs in history to really help people find out which of the subtypes they fall into.

And people probably are aware of the subtypes, but we have inflammation and glycol toxic where we have problems caused by increased blood sugars. We have this area of trope of laws where we don't have enough vitamins and nutrients and hormones, we have toxicity, we have vasculature and then we have trauma.

So those are our different areas. So we were able to break down people into those categories. And so that's where your question you asked me about the one thing I would do part of it really depends on what's the biggest player in a given person, right?

But definitely diet goes across a lot of those boards. I mean, if you're going to affect nutrients by having a more nutritious diet, you're going to lower inflammation, you're going to lower blood sugar, you're in a lower toxins.

So you're probably not going to affect brain trauma by by effort, by the diet necessarily. But you could sell. So increased fish and fish oils, right?

It is so good for healing range and cooling and theory and better in foods. You know, I love it. Those are great for people who had a history of brain trauma as well.

So, so definitely true. So that's the way I start working with people as I, I work closely with Apollo Health.

Why Precision Medicine Matters in Alzheimeru2019s

We start helping to categorize people into where they fall. And really we want to address all of those issues that are there. But it does help sometimes prioritize areas of someone is really strongly of one category versus another.

The vascular area is one that I have a little underlying passion for. And so there are certain things that pop up in a history or on different imaging that we do that make me want to look at that area more with people and address that a little more.

And of course, vasculature is just immediately a tied tied to brain health. We actually if we're talking about Alzheimer's disease, if you're looking at Pathophysiologic, what's going on, one of the first things you see in early Alzheimer's disease is dysfunction of the cerebral vascular system.

So there's actually alterations in blood flow and oxygen exchange between the vascular system and the brain tissue that's there. And for many people with who are at risk for Alzheimer's dementia and they're having increased amyloid, we also get more amyloid deposition in that cerebrovascular area which causes issues again with diffusion of nutrients and oxygen to brain tissue and also affects the leakage of blood, the risk for bleeding and the blood brain barrier integrity.

So blood brain barrier, which we talk about, is really made up of endothelial cells. So I guess I should say what a endothelial cell is. But so so the endothelial cells are the cells that line all of the blood vessels and lymphatic vessels in our body.

And if we think about it, it's pretty amazing. I mean, if you opened up all of our blood vessels and laid them out, they say it would cover about 4 to 5 tennis courts of size.

So there's a vast amount of these endothelial cells in our body. There are one cell layer thick and they have lots of activity in our body. So they're not just a tube that carries blood flow through, but they're biochemically active.

So they do form this barrier. But that barrier prevents things like bacteria and viruses from leaving our blood system and getting into our organs. It has entire pieces of properties that prevent platelets and things from grabbing on to this the walls of our artery and start causing blockages.

They have anti-inflammatory chemicals inside of them that prevent inflammation and oxidative stress to things like cholesterols that start building up plaques and causing heart disease.

They make chemicals like nitrous oxide that lesser blood vessels dilate. So these are really biochemically active. And if we're looking at what the root cause of heart disease is, it's really dysfunction of these endothelial cells as they are not doing their job properly.

Then we are start becoming at risk of developing plaques in our arteries. You know, you. Yeah, I'm going to have you keep going because this is so important.

And I think what you illustrated previously in terms of using Apollo in creating these understanding your subtype is that this is a precision medicine approach, right?

You can have people who have memory loss and there's 6 million Americans who've been diagnosed with Alzheimer's and one in three Americans suffers with some sort of cognitive impairment or brain fog or feeling like their brain isn't working optimally.

This is a massive number of people in our population and they arrive at that moment of recognizing that there's some sort of brain issue happening in very different down going down very different pathways.

And the pathways that you describe, like the trophic pathway of low signaling, whether it's beta enough, brain dry neurotrophic factor or estrogen or testosterone or whatever, the vitamin D, thyroid, whatever the signaling hormone is, that can be low nutrients can be off.

There can be too much sugar, there can be too little B-12 or vitamin C, right? We can have all of these different pathways that get us there and we don't all travel the same path.

Some people had traumatic brain injuries from playing football. Some people have never hit their head once, but they arrive at the same symptom picture.

And so taking the time to figure out how they got there and then also understanding that they're not mutually exclusive. Right. You can have a bad diet and have had traumatic brain injuries and then taking that time to figure out what pathways you took to arrive at that conclusion.

Right. And hopefully not conclusion at that at that location on the path is really important because that's how we get back, right? That's how we unwind this dysfunctional process.

And you are an expert, really, in this in this piece around blood vessels and that. So that's the piece that you're especially passionate about. And I think you've also did a really great job explaining why that's so important.

Right. Our blood. Blood is what delivers those hormones, those nutrients to our brain, everything that we need.

Diet, Subtypes, and Vascular Health

And it's also what takes it away. Every all of the toxins that need to be taken out, they're going to leave through that vascular system. So it's not working.

Our brain isn't going to work. Okay. So I just had to like double click on all that you just said because it was so important. And so these endothelial cells, they are the ones that are there, like you describe that plumbing.

It's not that they're just plumbing. There's a lot more to it than that. It's complex. And this is this shows up for vascular dementia, for heart disease, for Alzheimer's, for all of it.

Okay. So let's keep going on. Like how what I'm wondering now is like as you're describing this, I'm like, are mine, okay, how do I test them? How are they doing?

I write. Yeah, that's a great question. And and there are some tests to look at the health of your endothelial cells, but none of them are perfect. So there are a variety of things that are out there.

But our endothelial function is very sensitive to too small things like stress. And and this is why just I'm going to get right back to this topic, but the lifestyle applications that we look at, we're looking at diet and exercise and stress and sleep.

They are key because all of those intimately relate to the health of our brain, but also to the health of our blood vessel cells. All of those affect your individual function such that if I'm doing an industrial function, tests on you.

So some of them are things one one's called so they name different particular. Totally, yeah. Go for it. Like practical. I want people to be able to like name it.

So ones called and then these aren't available everywhere but end up in another one is Bend. Is there similar types of things that technology is a little different in how they assess it, but basically we're assessing the ability of blood vessels or blood vessel cells to generate nitrous oxide and fill back up distal tissues with oxygen after you occlude blood flow to the arm.

So typically you're including blood flow to the arm that's decreasing the blood flow to the extremity. And then you release it and then you're measuring either temperature or pulsatile. Ms.

and in the fingertips to determine the rapidity of restoration of that blood flow. And that's a reflection of your end suit, your cell health. So those are two that work in that sort of a mechanism.

But to do that test, you need to be able to do it reproducibly where you have a consistent temperature, where someone's coming in without drinking coffee or being stressed on the drive there because somebody cut them off.

You had an environment that's quiet because it's something drops or bangs in the middle of it. Then that my new amount of stress and just adrenergic tone where you're releasing epinephrine or something will set off your your endothelial cells and actually alter your endothelial function.

So while these are wonderful tests, there's others also that can look at elasticity of blood vessels, sort of based on evaluation of pulse wave analysis.

Another really neat thing that we've learned about endothelial health is that above these endothelial cells, we actually have this thin layer called the glycol pellets, which is basically like a Teflon lining that covers our endothelial cells, which is extremely important to the health of the endothelial cells and is something else that can degrade as we get older, but also rapidly degrade to inflammatory stress like you eat a really bad food with lots of French fries or of bad oils that will degrade.

You're you're like, okay, Alex layer pretty rapidly and that glycol Calix coating our endothelial cells it basically makes it such that say you have an inflamed cholesterol molecule that may have gotten down into that endothelial layer and made a plaque bigger.

Now it's going to bounce off and just kind of reflect off of that and not cause that plaque to happen. So this like, okay, Alex is actually something else that we can image now.

There's something called a cyclical regular check, but it's like this micro camera under your tongue where you can actually see these little blood vessels.

You can see them the little lining of the glycol helix covering the blood vessel wall. And it's pretty amazing. And now you can measure the thickness of it.

And that's supposed to give you some assessment of how healthy your like, okay, Alex is. But this is something that there has been some new supplements and they're made from a special seaweed.

And this green seaweed actually has been found to really help replenish that glycol. Calyx lining. And they have some really neat results on this where we see regression in plaques and arteries and soft plaques like carotid

arteries of people and some reversal of vascular disease, which was really important for our brain health, too.

So I know people are going to be asking what's what's the seaweed product? We can on this summit? We can we can share nobody's pain assessment. Yeah. So so our Tyrus cell is the name of the brand name of the specialized supplement that has that seaweed product in it that can help restore your glycol, Calyx.

And the integrity of your blood vessels, it sounds like. Yeah, it helps. I mean, it helps protect that layer. So that way, no, I mean, there's a lot more other things we get into blood pressure and sleep apnea and all these other things that affect our our blood vessel, health as well.

But if we have an intact like helix, it's another layer of armor over the blood vessel that helps protect it. Then it's, you know, something that's easy to do.

I mean, all of these things like lowering the inflammation in your diet and exercising, that's going to improve your glycogen likes. But now we have a specialized supplement that we know can replenish it as well.

And so for any client that I have who I mean, I try and recommend it to most of my clients with who I'm seeing for dementia, but especially to my clients who are seeing me for vascular disease in particular, or family history.

That's a supplement that I recommend to be protective. Yeah. That's really helpful. So I think I also want to go back to what you said about using the endo pie and how the limitation was that if you were under stress, it changed your blood vessels.

So this is that connection between stress and Alzheimer's, right? This or at least one of them. So what do you recommend to your patients in terms of like modulating?

Right. We need enough stress. We need to push up against our edge and cognitively exercise and our muscles and everything. We don't want to just sit on the couch and not have any stress at all.

But what do you recommend to your your patients, your clients for modulating that stress, getting it at just the right level? Yeah, there's lots of tools that we have that we can use now, which is exciting.

And people have different amounts of life stress and different ways of dealing with it. And some people have a past history of having significant anxiety and some mental health issues, and others have not really experienced any of that.

And I have people who I see who are pretty much like, I have no stress at all. I don't feel stress about it.

Endothelial Function and Glycocalyx Support

Like you, the family members have more stress, but they're not feeling much stress. But so you're right, Heather, that stress is something that we can use to grow and get stronger.

And that's this whole concept of for medic stress, like exercise, like sauna, like cold therapy. Right. These are these are things that we can do. And if we do them well and don't overdo them, then they actually rebuild our body in a stronger state.

And we grow from them. We grow more muscle, we grow better cardiovascular strength, we grow better neuronal capability and cognitive ability, but we overdo them and we suffer.

And so that's the same for, you know, physiologic stress. And so a lot of this is is an approach to lifestyle and learning to try and help calm and modulate your nervous system.

And so I try and have all of my clients learn to part of it is sort of to recognize when maybe things are getting a little overwhelming. I could do this for myself too, but for when things are getting a little overwhelming and overly

stressed and having that recognition and saying, I need to step back and take a deep breath and maybe just taking, you know, even three deep abdominal breaths is enough to really you can feel that when you get stressed and you do that, it's enough to really just sort of reset and calm the nervous system.

So just part of it is developing that recognition for when is something getting to be a little too much for me. I'm revving a little high when it comes to some psychologic stress.

And then, you know, after into that a little bit by taking some deep breaths and then there's a lot of different tools out there from things that like programs like Heart Math, which is a wonderful program that I utilize with some of my clients, has some really good scientific evidence to it, and pretty much it sort of is the utilization of a deep breathing practice, but with some biofeedback that you can have where you can sort of see this state of balance that happens in your body, it's really balancing our sympathetic fighter flight nervous system with our parasympathetic rest and digest nervous system.

And in that balance, your life's a lot about balance. But that balance is really important there for our nervous system. And and it is crazy how so rapidly we can set things off and our body reacts, you know, in just microseconds to do things that happen around us.

But we can also reset it. Stress also same thing with exercise. So I encourage, you know, exercise is a key part of the recall program and we have people who are coming into it who are quite physically active and who run some each day.

And we have people who are quite sedentary who don't do very much at all. And so we have to deal with increasing activity or sometimes decreasing activity.

I have some clients who see me, and part of the problem is that they actually don't let themselves recover enough. And so you're actually building up increased oxidative stress and stress on the body from exercise by not letting you recover.

Well, and now we have some of these devices that can look at things like your heart rate variability, which is our heartbeat. We sort of measure our heart rate and we say, my heart rate is 65 beats per minute or something, but really is not over that whole minutes.

Time is 61 at 60 and 65 or 67. So this variability in our baseline heart rate is actually something that's a predictor of your state of recovery. See some of the state of general health.

And so some of these neat devices like the ordering, the whoop band, I mean, even different watches. Now you're able to look at these sort of metrics and be able to use them to see, is my body in a state of recovery?

Am I stressed too much? So I love it. This is super helpful. And you can see very quickly how each person is really going to need a guide through this process, particularly if they're feeling overwhelmed or if they're struggling with cognitive decline.

There's a lot of kind of threads that we can pull on. You mentioned sleep apnea as something that can affect blood vessels. We also know there's a direct relationship certainly between sleep generally, but also obstructive sleep apnea and dementia.

So how do you guide your patients through that if it feels like there's room for improvement with sleep? Yeah, so I actually I think sleep apnea is a really under diagnosed epidemic here.

So there's I've been really surprised at over the years of the number of people who say I don't snore. My partner says I don't snore. I sleep well. I feel rested when I wake up.

Stress, Exercise, and Recovery

These things that we think about that relate to somebody having sleep apnea, you look at the individual and they're not overweight. They don't have a lot of tissue around their neck.

These things that make us think that person may really have sleep apnea, who actually do have underlying sleep apnea, they don't know about. So in all of my clients, something that I do and even if they're on a CPAP is I have them use on a nighttime pulse oximeter.

We actually send it to them as part of the beginning of our program because I really want to get, you know, several nights of recordings. But this with this particular device, we use, there's many of them out there.

But what what it does is it will actually record up to this one is called the IMO 80 that we use but there's different ones but it's it's like a pulse ox that you would use to check your oxygen level if you were worried you were sick, like having COVID or something, you know, and you put it on your finger and you keep it on overnight.

Sometimes you have to take it. If you tend to move around more and it records up to 40 hours of oxygen levels and heart rate numbers, and then it actually will download to your phone via an app and generate a pretty good sleep report where you can see, does it look like somebody is having dips in their oxygen throughout the night?

That may make you suspect there's some underlying sleep disorder. Also, you can see some things with the heart rate that may be going on there. So I use that as sort of my poor man's sleep screen on all my clients just to see, does it look like we should take a step further and do a more sophisticated sleep study to evaluate through this.

We use Watch Pat, which I don't know if you ran into that one, but it's a watch plus a ring that you wear overnight and it gets covered by Medicare. And what I appreciated about it as a practitioner is I can kind of say just connect with watch Pat, it'll get covered by Medicare and then magically a sleep medicine doctor or some expert in sleep medicine can read the report and get the report.

And it's almost as good as an as an overnight hospital sleep study at this point. The technology has really come up. And so there are options, like you mentioned, very affordable options there and and less cumbersome than they were even like five years ago.

I was still sending people to the hospital for sleep studies. And now I think COVID really accelerated the technology so that people could get access to this kind of thing at home.

I couldn't agree more with you that this is definitely underdiagnosed because we have these ideas in our brain about who sleep and sleep apnea, patient is and they don't always connect.

Right? I have very thin women who have never snored, who have sleep apnea issues. And yeah, we need to get them help because any amount of apnea in my mind as a brain doctor.

Right, this is mild brain damage each night. And I am not going to tolerate it. I want it. I want someone to intervene. So what do you recommend people do?

Like is everybody honesty, pop, or do you have other things that you recommend? Yeah, so, so I do work, so I actually will use watch pad as well. So typically that's a next step I'll go to if somebody knows some people right away will have enough symptoms that will qualify and I'll just skip the oximeter and I'll say, let's just get a watch pad or in-home sleep study on you.

That's a great way. The watch has a great company and they they do over their device has been shown to be really accurate so I love that and then they get evaluated by the sleep doctor and talk about a sleep, right.

And so a CPAP is definitely a good device but not tolerated by everybody and not what everybody wants to use. So what else can you do? So sometimes you can gather information from sleep studies about the position of affecting what somebody's oxygen level is.

Sleep Apnea Screening and Treatment Options

And lots of times if we're sleeping on our back, it can make apnea worse than if you're sleeping on your side. And so it can be as simple and know enough to lower the amount of sleep apnea by having a pillow support you on your side.

Or they have these best they have like a tennis ball on the back. So you don't roll on your back, right? They keep you more on your side. So that's something that I've had some of my patients use before who don't tolerate a CPAP or have milder sleep apnea where maybe it's not 100%, but we want to help them some more.

And we see that that it was worse when they were laying on their back versus on their side. There's I mean, there's a whole, you know, get into a whole bunch of information, even beyond sleep apnea, about breathing and breath and all of that.

The book Breath is a wonderful book. I love that book. We're just talking about the importance of breathing through our noses, right? And so and so there are some clients I have who actually have improved their apnea by doing things like chin straps or mouth taping.

And actually now that could potentially make it worse for some people, too, if they really can't breathe through their nose. So now I'm not giving a blanket recommendation for everyone to do that right off the bat, but but there's some people both doing the interventions in terms of how they're breathing that can help that at night.

There's dental devices that can help mobilize tissue to try and open up the airway more. But oftentimes I'll work with, especially if someone has more significant sleep apnea, is working with the sleep doctor and in trying to find what is going to work for that individual.

And then I have some clients who still despite that, they won't really tolerate anything. And that gets to be a bit more of a challenge. And sometimes we'll even see.

Well, although it's not really fixing the apnea, sometimes I get clients by just doing nighttime oxygen and getting enough oxygen at night, you're able to sort of saturate the cells enough and prevent the lower hypoxia, which is there's still some avenues there, but it's a little better.

So so try and play with what we can. Yeah, there's a lot of options. So anyone who is I think sometimes people hear sleep apnea like, oh, I don't want to sleep CPAP.

And so they're not even willing to kind of go down the path. And I want everyone to know that there are tons of options and lots of things that you can do to help optimize your sleep.

And the side effects of getting more sleep not only is more energy, but better cognitive function. So I want to make sure that everyone knows where they can find out more about you.

And if they want to work with you, they can get information about that. So can you share websites where what you offer, where they find you? Yeah. So the name of my practice is Colorado Functional Medicine, and the website is just sort of the acronym from there.

So it's W WW dot c0cfm dot com.

Practice Information and Closing

And in there there is information on on myself and the other members of my practice and different ways we work with people, both for people who are having cognitive problems and those who want to prevent cognitive problems.

Or if people have some specific functional medicine issue that they want to work with me on as well. So that's fantastic. Wonderful. I'm sure you're going to have lots of people knocking on your door because you are getting

phenomenal results.

You're clearly putting this protocol to work and it's benefiting people. So thank you so much, Doctor Dan, for the work that you're doing, your dedication to your patients and for sharing with us your time today.

Great. It was a pleasure to be here, Heather, and look forward to talking to you more in the future. Fame.