The Benefits Of Microdosing GLP-1s For Weight Loss And Inflammation Transcript

(Transcripts are generated by AI and may contain errors)

Introduction and Guest Background

For this Doctor talks. I have a really lovely guest with us. Doctor Cassie Smith is a dual board certified physician by, the American Board of Internal Medicine and Endocrinology, diabetes and Metabolism, as well as internal medicine.

And she did her undergraduate medical school at the University of Missouri, Kansas City, and she is a private practice physician. She went into private practice in March of 2020.

Nothing crazy was going on in the world then, right? And has had a successful practice called modern Endocrine. She is in Oklahoma City, and she is with me today to talk about, in general, approaches to weight loss, including lifestyle and medications, but specifically microdosing of GLP one.

So thank you, Doctor Smith, so much for joining me. Thanks for having me Carolyn. All right. Well let's jump right into this microdosing concept because this is something that, you know, people hear about.

But we haven't talked about on the summit. So tell me what people mean when they are talking about microdosing. Yeah. So microdosing is an interesting concept.

But I look at microdosing as taking very small doses of weight loss medications, particularly the GOP ones. So we know when medications are studied and there are medications approved for weight loss, there are doses indicated for that.

There may be treatment doses and then starting doses. But what I find with some people is that they can't tolerate those doses because of side effects.

And so in those people, I really like microdosing.

What Microdosing GLP-1 Means

And by that I mean was the molecule semaglutide or ozempic? It would be doses less than 0.25mg. So I've had success in people with 0.05mg or 0.1mg. I use a lot of 0.125mg.

So half of the lowest dose of ozempic. And then in people with Jaro or the appetite molecule, even doses at 1.25mg people are very successful with benefits of that including inflammation and then weight loss.

I think this is really exciting to talk about, right? Because when we look at trials for medications, some kind of picks, a dose that they think makes sense, right?

And they try it out and they prove that that is a safe and an effective dose. But then in the real world, what we get to do as physicians is figure out what makes sense for our individual patients.

So tell me a little bit about how you found that these lower doses work for your patients and with your, you know, extreme knowledge as an endocrinologist, why do you think that these lower doses might work? Well, yeah.

So these are great questions. So I kind of take a holistic approach to patients. I, you know, try to really look at like them as a whole and not just individual whole.

And so I think weight loss is very complex. I think you would agree with that. Right. Not it's I really don't think or believe. It's like eat less and move more.

There's a lot going on with hormone physiology and sleep and nutrition and a lot of different things. And so what I found in people was that, you know, the people that said, I'm exercising and I'm eating well, they were still having a problem.

And these were people that, you know, I knew that they were they were documenting what they were eating. They were showing me they were exercising. They're hitting their protein goals.

But for whatever reason, they were still hanging on to some of that weight. And a lot of these people were very inflamed. You know, they'll tell you, like, I feel like my joints are inflamed.

I feel like my stomach's inflamed. So like, I can't sleep. I have some brain fog. And I know as an endocrinologist and you probably know that insulin is a molecule that a lot of these people have a lot of.

Right? So insulin resistance is what happens up to ten years prior to you developing diabetes. And when your insulin levels are high, it causes a lot of inflammation.

So insulin is one of the most inflammatory molecules in the body. And so when you have a lot of inflammation, it makes sense that your joints hurt and your stomach isn't working as well as it should.

And you get more tired. Your brain is foggy, things like that.

Why Lower Doses Can Still Work

And so my thought was with these people, okay, if we can give them doses of GLP ones, maybe doses that don't make them sick and make them not want to take the medication or not want to eat or not want to work out.

But we give them a dose that's enough that we can start quieting that inflammatory response right? Lowering some of that inflammation, that maybe these people can be more successful with their weight because a lot of inflammation, I think to and what I've seen in practice is it resides in our GI tract.

So 70 to 80% of your immune system is in your GI tract. And a lot of people have a lot of inflammation in their GI tract because of the food that we eat.

And so a lot of our food is, you know, it has a lot of chemicals. It's processed, it has inflammatory, you know, ingredients in it, unfortunately. And so there's a lot of people who are leaking food from their actual GI tract into their bloodstream because of other issues.

They have things like leaky gut, things like that from lifestyle habits over time and these this food that leaves their GI tract and goes into their blood causes inflammation.

And I think a lot of times that's the root cause of insulin resistance and hormone issues and a lot of things that people struggle with that affect their weight.

Because when our insulin level goes up, our body sends this stress signal, right? Our body's like, oh my gosh, why is insulin high insulin supposed to be high for a little while right after we eat.

But then insulin is supposed to go and get all those molecules of glucose after we eat and take them to our skeletal muscle, or take them to our liver, or take them where everybody needs them for energy.

And the problem is we have all this extra energy now because we have all this extra food, right? So our insulin levels stay really high, and then our body tries to take that extra glucose to our liver, which is where, you know, we store extra glucose.

A lot of people's livers are already full. Like they're already full of toxins. They're already full of fatty acids, they're already full. And so then our body is is has this high insulin level after we eat and then our body says, okay, well,

this is a very inflammatory molecule.

And it's been here for 30 minutes, an hour or two hours. Now what is going on. And so then our cortisol levels go up, right. And our cortisol levels, our stress hormones.

And so if you look at people initially when they develop insulin resistance, what you'll find is their cortisol levels are very high. Now unfortunately over time when our cortisol stays high then we develop something kind of called adrenal fatigue.

Or our cortisol levels actually shift down. And then we don't have this spike in cortisol that we need to have. And that affects fatigue and sleep. And some other things.

But my thought process and following these people and looking at their labs was me. And if there's a way I could get their inflammatory markers to go down, their CRP and their uric acid levels and their insulin levels, it would feel better.

And if they felt better, then they would want to get off the couch and go exercise. And maybe their brain wouldn't be foggy and, you know, and so it would help them feel better.

And I'm all about like helping people where they are, meet them where they are, help them build better so that we can get them on this trajectory of of, you know, feeling better in weight loss.

And there's again, there's so many things that go into weight loss. It's it's your sleep, it's your nutrition. It's are you exposed to light? It's how do you deal with stress?

What is your cortisol level. What are your hormone levels. And so and just thinking about that and seeing all this when I dealt with people with with weight issues, I thought, okay, well job ones obviously have an indication for weight, right.

But we also know the great thing about them is they help with inflammation. And so my thought process was in some of these people who couldn't tolerate these doses because they got GI upset or they had, you know, issues with constipation.

A lot of patients that need to lose weight already have GI issues, because I told you, we're not eating the right foods, right? Or we're not drinking enough water, we're not getting enough fiber.

So the last thing I wanted to do was give them these bigger doses of GLP ones, which would further cause them to be constipated, because we know when we're constipated, we're not detoxing either.

And that's a huge problem with weight. You have to be able to detox and get rid of the fatty acids that are breaking down in the fat molecules that are breaking down from your liver through your GI tract.

And so I was, you know, I had this struggle with like, how do I get people to detox and get rid of these toxins and these fatty acids, but also get rid of the inflammation with these great medications that help with weight, water causing GI issues.

And so that's where I kind of started playing with microdosing. And I thought, okay, well, let's just give them a much lower dose of a medication we know helps with weight and helps with inflammation.

And see if we can negate those bad side effects. But at the same time, lower inflammation, make people feel better and help them lose weight and detoxify through their gut.

And so I just kind of started, you know, my patients allowed me to we started very, very low doses and we would kind of hydrate depending on how they felt.

When we do weight loss in our clinic, it's mandatory that you come and see us every four weeks. So you come and see me or you come and see a nurse. You have an in-body scan.

So we know are you losing muscle mass? Are you losing fat mass? If you're losing muscle mass, we know you're not eating enough protein and we can lower the dose.

And so that's just how we kind of started doing it and how we've been managing it. And it's worked really well because my my goal is for you to not have bad side effects.

I want you to be able to eat your protein. I want you be able to go to the bathroom every day. I want you be able to get off the couch and have the energy to do that.

But at the same time, I want I want your insulin levels to go down, and I want to see those inflammatory markers go down. And so that's just how we do it.

And that's so I back the question that some people listening are going to have and know that I'm like the biggest believer on these meds when I ask this question.

But the question that, you know, I would get from my patients and from other people is, well, can't we just decrease the inflammation through their diet? Right.

If you're saying that a lot of this is the ultra processed foods and, you know, the quality of our food supply and things, then why can't someone just change that alone?

Like, why wouldn't that be enough? Why do they need even the microdose of the medication? That's a great question. Could you really change it through your diet?

The answer is probably yes, but it's going to take globally a year at least, right?

Why Diet Alone Often Isn't Enough

And again, the reason is you can change your diet. But the problem is you're also going to have to detox all those bad things out of your body. And when you have obesity and when you have insulin resistance, what we know is the problem is your liver is already taxed, right?

So our liver is responsible for getting rid of toxins. But the other thing is we store a lot of excess fat and our liver. So as you develop to be obesity and insulin resistance, you get this cue to store to store all this extra fat in your liver.

And so our liver is kind of full and it's not able to do the things that needs to. We make glutathione in our liver, and that glutathione helps with phase one and phase two, the vacation through our liver.

And so a lot of people just aren't able to detoxify as well when they are obese. And so we are, you know, even if you clean up your diet, you're we we know you're still going to have toxins in what you eat, right?

Eating the cleanest you can possibly eat and still going to breathe in toxins. And so the thought process is, could you do it with diet alone? You could.

How long is it going to take? We have no idea. My other thought is there's so many hormones that are out of balance when you get to this point, like obesity is actually an endocrine disorder like it is.

Your adipose cells are an entire endocrine system that nobody teaches you about in med school. They don't even teach you about this in endocrine fellowship.

Right. But you're obese. Like a scary thought. Yeah. They don't I mean, nobody teaches you about about fat cells and what happens. But there's a lot of bad things that happen in your fat cells.

They make interleukins. They make tissue necrosis factor alpha. These are all things that cause inflammation. They make testosterone. They take your testosterone and a lot of your hormone levels, and they make bad estrogens out of them.

This is why we know that women that are obese are more likely to develop breast cancer. And so there are all these terrible things going on in fat cells.

And in order to stop that and reverse it, a lot of that is laboratory based. Right? So the interleukins and the tissue necrosis factor alpha. And so you have to kind of calm all that down.

With that being said as well, by the time you get to this point with obesity and your insulin's high, your cortisol is high. That is down regulating your ability to make thyroid hormone because of all this inflammation, you're not making thyroid hormone because your thyroid is stress.

You're making less growth hormone. So when you sleep at night, you're not actually getting good restful sleep, and you're not actually able to make the hormones for the next day.

And so there's just so many things that are working against you when you get to this point. It's kind of like for so long, your body was just kind of getting by and kind of getting by and kind of getting by.

And then we reached this breaking point where everything just kind of shifts. And now your insulin's high, your cortisol is high, you're not making your sex hormone.

So estrogen and testosterone and progesterone as a woman or testosterone as a man. Now you don't have growth hormone. And so all of these things are just kind of working against you.

So it's really hard to fix all of that at once. And people don't feel well. Right. And so it just a lot of time. So could you do it. You could. But there's a lot of repair that has to happen at a cellular level as well.

And so I think that's where these drugs come in. And they really and I, I suspect that the patients you see are like the patients that I see where many of them have tried those things to some degree and they haven't worked.

And probably the reason hasn't worked is because the metabolic disturbance is just too much. Right? Like you so clearly outline, there's just so much going on without fixing that underlying problem.

We can't, you know, expect weight loss, we can't feel better and we can't make that progress. So we kind of have to like have, you know, if we're trying to grow a garden, we have to have soil that things can grow in. Right?

We can't just put the seeds, you know, in a cup like my kids try to do and grow something. Right? We have to have the right foundations. It sounds like, you know, really the medications are helping with that foundation, and then we can build upon it.

Yeah, exactly. And, you know, I tell patients all the time, like, I saw a lady today whose insulin, the fasting insulin was 60. And so for a reference like you're reference range on a lab, a lot of people, they'll say an insulin levels normal all the way up to 18 or 20, which is insane.

My I tell people I want your fasting insulin at five or less. I mean, I really think that's where it should be. So this lady I saw today, her insulin 16 I you know, she doesn't stay in it hands of feeling better until that insulin level is at least single digits.

Well, in order for that to happen so many, you know, and same thing. Like I'm eating. Well, I'm exercising, I'm trying, but I'm just so tired and I'm so fatigued and I have this brain fog.

Well, yes, because your inflammatory markers are 12 times what they should be. And so in those people, I think it's just really beneficial. A tiny little dose.

A lot of times people don't even realize they're taking it. You know, like my goal is for people to not even have a side effect it, but for it to start doing things at a cellular level, calming down that inflammation so that those patients feel better.

Labs and Testing for Weight Loss

Yeah. Well, that's that's amazing. And I'm glad to hear that you're having like, results with these low doses. Yeah, we really are it. Sometimes you have to you do have to go up and sometimes people end up on, you know, more normal logical doses or doses that we've done in studies.

But I have like I said, I have a lot of people. And the other thing I think it works really well for is, you know, this overweight range where we've got a lot of people that have a lot of risk factors, right.

So PCOS, things like that, where we know people are insulin resistant. I live in Oklahoma, so Native Americans are some of the most insulin resistant people in the country.

And so some of these people, even with BMI of 28, 29, they could have insulin levels that are 50, 60, 70. And, you know, that is you're going to develop diabetes.

And so helping these people prevent too is really important to me because I'm not I mean, I'm sure you know this, but once you develop diabetes as a woman or a man, but as a woman, it changes your mitochondria like permanently.

And so my thing with young women is if you have insulin resistance, I want to help you change that, especially if you haven't had children. Because if you have not had children and you develop diabetes, you get 100% of your mitochondria from your mother.

And so I think a lot of the issue with the obesity epidemic in this country with children is we're running children from mothers who have diabetes, so they are already inheriting these genetically modified mitochondria that then are predisposing them to having insulin resistance and being obese.

And so that's really scary if you think about that. Right? Yeah. That was I mean, that was my whole passion for getting into this. So I'm a family physician by training and seeing the amount of people who had diabetes and everything, you know, from complications with pregnancies to needing dialysis and heart attacks, I really became very passionate early in my career about preventing diabetes.

And, it's so powerful to be at a time where we have these medications and we we can, you know, prevent the vast majority of people who are at risk from going on to develop diabetes.

Yes. And that's kind of where I am, too. It's just it is very powerful. It you know, we have to educate people. We have to teach them, like why you don't want to get there.

But we do have the tools to do it. And, you know, if you think about it, like if you're looking at a factory, right, like a, an assembly line, if every single piece of the assembly line is broken or not working correctly, you know you're at like a 20%, then obviously the end product is going to be pretty bad, right?

And that's kind of where these people start out where like everything is not working, their cortisol is high and their insulin is high in there, you know. And so nothing feels good.

But if you can just kind of imagine if you can take that factory line where everything's working at 20% and just magically make it all work at 50% without really doing anything else.

Well, then obviously you're in product is going to be a lot better. Well then Azure AD products a lot better. You know, then you have more energy to keep fixing that 50% to 60 to 70.

And so that's kind of how I look at job ones. I tell people, you know, it's going to drastically help your entire body really quickly get on a better page.

And then that's going to help you start doing things that's going to, you know, like, do you see this with weight? And I see it to like people get to a point where it's like, okay, wow.

Like I feel better. Everything's working. The weights coming off, you know, that you've opened up their detoxification pathways. Their gut is good. You know, I have people who come in and they're like, I'm pooping every day.

Like, that's great, you know? So now, you know, like you're going to get there because now you can detox. And so you just have to get somebody to that point though, right?

Because it's like kind of an uphill battle for a little while. And I think that's where people get so frustrated is they've been in this uphill battle forever.

They don't really have anything to help them. They have all these doctors saying, eat less, exercise more. That's the only thing that's wrong with you.

When we know that's not the case, there's tons of labs and other things you can do to to show that. And so it's just really trying to help them get to the top of that summit and then start down the other side.

Because once you get going, usually people feel a lot better. Yeah. So you've talked a little bit, you know, about insulin, and the level that you're looking for on labs.

And I agree 100 cent with you. I'm looking for the same, same, same number as you are there. What other labs are you looking for in your clinic that help you figure out the path, or what other testing also are you doing to help figure out what treatment is going to be most useful for your patients or, you know, like why they're struggling with their weight.

Yeah, that's a great question. I am a huge lab person. Like I love lab, so I probably over do labs, but that's because I'm also looking at you as a whole.

So I think, you know, if you're somebody struggling with weight and you don't know what your fasting insulin level is, first of all, that's a huge problem.

You also need to know what your cortisol level is, because if it's really high, we need to know that and we need to work on fixing it. And if it's really low, then we need to make sure we give you a little bit of adrenal support.

So cortisol is a good 8 a.m. cortisol. You can start with blood. Yeah. Also you know I'm okay with Dutch testing throughout the day. Salivary because you want your cortisol to be highest in the morning.

And then you want it to kind of go down throughout the day. If you have somebody who starts high and then ends up really low and then back, you know, back and forth, you can you can tell a lot of things about that as far as how stressed they are.

So I think insulin and cortisol are great things. I like cortisol levels in the morning to be anywhere from 10 to 15. You know, if they're in the 20s, then you're obviously very stressed.

If they're less than ten, then we may have an adrenal issue as well. Thyroid is very important. So you know, thyroid the thyroid gets blamed for a lot of stuff.

But there are a lot of people out there, I think, who do have thyroid disorders that maybe have not been diagnosed or treated properly. And when I say that, I mean I think TSH is important, T3 is important, T4 is important, your TPO antibody is really important as well.

Because if that's really high then we know you're very inflamed. Right. And so if I get high TPO antibodies and that's where I go looking at their thyroid and saying okay, do we need to give them some thyroid support.

And that's a whole nother topic. But then you have to look at micronutrients like iodine and iron and B and D because those are co-factors that we need for our thyroid hormone to work.

Right.

Whole-Body Approach to Metabolism

And in saying that vitamin D, I look at vitamin D, B12 and folic acid levels and all my patients struggling with weight because if you're not absorbing B vitamins from your gut, right, if there's something going on because your gut, you have small bowel, you know, overgrowth or you've had gastric bypass or something like that methylated your ability to methylated B vitamins, but the ability to use B vitamins is very important in fatty acid metabolism and metabolism in general in brain fog.

And so if you don't have sufficient B vitamins, then that is very, you know, important or detrimental to your weight loss. You actually need about 60% more B to when you start losing weight.

So B2 is actually very important for your metabolism. And if you are deficient in B2 and you're trying to lose weight, that can actually shut down your ability to lose weight.

B6 is important for lipolysis, a fatty acids as well. So I look at a B12 level. I look at B2 and B6 as well. I look at D levels. I think those are very important.

I want vitamin D levels to be 60. I like them to be higher than 30. I actually want them to be 60. I think that is very important for your immune system, but also for weight.

And then I look at hormone levels too, because I do think that's important. It helps me determine like how inflamed you really are and what's going on.

If you are somebody who is, you know, in their 30s or 40s and you don't have adequate hormone levels, so your test often is low as a male or your estrogen and progesterone as low as a female or testosterone is low, or it's a problem like that tells us something's going on.

Right. And your body will let you know that it's not happy and something is going on in your inflamed. As a woman, if you know, you stop having normal menstrual periods.

And so we need to know that is your body to that point where you're where your hormones are off and when your hormones are off it, sometimes it can be more difficult to lose weight if you're transitioning to that perimenopausal or menopausal period as a as a woman, then that's something that women struggle with.

Like, we know estrogen in proper doses and proper forms, you know, and proper the way if it's given properly bioidentical, that that actually can help you with some weight.

And so I like to look at all of those things. But then I also do some extensive micronutrient testing. And then we look at your gut. So I like to look at everyone's stool studies.

I just I want to know like are you able to detox. Do you have something in your gut that we need to fix? And so we look at all of that. I think there's, such number one.

Amazing how quickly you were able to go through all of that, because that was a lot of information. But the highlights how complex this is, right? And why this is not eat less, move more, right.

There are so many reasons why you might be struggling with weight, and there are so many things that might be

part of the solution. Right. And it I think you've made it really clear to you that it's not just taking the medication, right.

It's not just the the microdose or whatever dose of the GLP one is going to solve this problem. There are so many other components that have to be optimized for you to not just be well, but lose weight to.

Yeah, we really work on that at our clinic. So we have this like ten Steps to Ultimate Health that we work on, where we start with like your cell membrane, and we talk about how healthy our cell membranes are.

Because if our cell membranes aren't healthy, we can't take any of the micronutrients and we can't take the hormones in. And then we look at the gut. And then after that we look at micronutrients in general.

What are our stores? Are we getting enough through our diet? Do we need to change our diet? Do we need to supplement? Then we go into hormones, which are a lot of the things I just talked to you about.

But after that we really focus on nutrition. Are you getting enough protein or are you getting the right? Are you getting enough protein at the right time? Right?

Are you getting enough carbs at the right time? You need different carbs before you exercise and after. Women need different amounts of carbs and proteins depending on when they're cycling.

And so women, if you're trying to lose weight and you're doing 18 hours or 16 hour intermittent fasting in your luteal phase, you are driving your cortisol up, your progesterone down, and you are just wreaking havoc in your body.

And that's going to make it more difficult to lose weight. So we really focus on nutrition with people, too. And fat women need good healthy fats in certain degrees.

So we talk about all that in fiber and then we really look at exercise and we look at trying to build muscle. Muscle is very important because the more muscle you have, the less mass you're going to have higher your metabolism is going to be, the more you can eat.

We really also focus on sleep. Sleep is so, so important. I think that a lot of people in this country are struggling with weight because they don't sleep regularly, and so you really need 7 to 8 hours of sleep, because when you sleep and you sleep at the right times, you release growth hormone while you're sleeping around 1 to 1 or 2:00 in the morning.

And growth hormone is very important to not only help, like clean out your brain, help with the glial cells, help make connections from the day, but it helps your body make the hormones for the next day.

So if you're not getting adequate amounts of sleep, you're not making the cortisol you need for the next day. You're not making insulin that you need for the next day.

You're not making progesterone and testosterone and thyroid hormone. And so I think that, you know, we talk to people about sleep. I have a whole book that I made about sleep because it's very important, like going to sleep, falling asleep, staying asleep.

We talk about light therapy and making sure you're seeing the sunlight in the morning so that cortisol is released when you wake up, and then looking at red light therapy before you go to bed, or just avoiding blue lights in general so that you make melatonin.

You know, we look at that, we look at relationships. How are you doing in relationships? Are you very stressed? Is there something going on, you know, do you feel safe and then stress in general, like how do you deal with it?

So I would say honestly, between nutrition and stress and sleep right there, you could solve almost everyone's weight loss issue if you're chronically walking around really stressed, then it's going to be difficult to lose weight

because there is actually something called a vagus nerve, and you have this huge brain gut connection.

And if you are stressed, your body knows you're stressed and then your your stomach is I mean, there's been tons of studies that show this. Your stomach is just like, oh my gosh, there's all this stress.

Why your cortisol goes up. It starts to try to hold on to all the food that you eat. It doesn't want to go through lipolysis. It doesn't want to let go of that because it doesn't understand why you're so stressed out all the time.

And so all these things are really important, which is why I think, you know, you have to look at that. In general. There is no magic pill. There's no magic fairy dust.

I tell people this all the time, like if there was a magic pill, if GLP ones were magic, nobody would be overweight.

How to Connect with Dr. Smith

Okay, but you have to use those in conjunction with everything else you know, and trying to lower inflammation with all those things I just talked about.

And that's why I think the microdosing of the G open ones really help, because it's going to help lower that inflammation in that stress. And then you start doing little lifestyle things and they all just start compounding.

And when you do that together, I feel like you almost like quadruple things instead of just being additive. Right. You're multiplying. I like that they you quadruple things, right.

It's not just even adding. It's like they start multiplying. And I couldn't agree more with that. Right? They start like really stacking up on top of each other.

And you can start making those changes right when you feel better. One of the most powerful things to me since using GLP is that, I always said I will like, win a Nobel Prize.

If I could figure out how to get my patients to exercise, like people either will do it or they won't. Right? And we can talk about how good it is, and they can be super excited about how important it is, but actually doing it is hard.

And I have found that people on medications, it is so much easier for them to exercise. They feel so much better now. They actually are able to go and do that and, and make all these other changes, and they'll tell you that they have more energy and they don't know why.

Well, the reason they have more energy is because now they're sleeping better, right? When your insulin levels go down, you're less inflamed. You're going to be able to fall asleep and stay asleep longer.

The longer you're in REM sleep and the longer you're getting this good rest, the more hormones you're making for the next day, right? So you're not going to be as tired.

And then the lower your insulin levels come down in less inflammation, your brain builds better, right? So if you've got all these inflammatory markers in your brain that are, you know, floating around, it's going to be hard for your brain to work because it's trying to pass, you know, chemicals and all these different things through your brain and through the synapses in your brain.

And if it doesn't have these particles in the way that are causing inflammation, then things fire better. And you can actually think. And the same thing with your gut.

When your gut is not all inflamed and your diet's better, then you're not wasting all this energy in your gut, all this blood flow to your gut. And so you're going to have more energy to do other things like go work out and feel better.

Well, Doctor Smith, wealth of knowledge if people want to learn more and if people want to connect with you, how

do they do that? How can they find more from you?

So I have I have a podcast. It's called back to the basics. I have an Instagram. It's that modern endocrine underscore. So I'm very I'm on I'm on Instagram a lot.

And you know, we post 3 or 4 reels a day. I do a podcast once a week, so we release one. I think I'm going to be doing some more summit. So hopefully I think I'm going to have a summit with Doctor Talks in February.

And then we have a clinic in Oklahoma City. Our website is barton-endocrine.com. We have some, you know, a contact form there. And if if you are somebody who wants to, you know, join us and learn more about weight loss.

I'm like you, I'm we use medications. But I have people who don't want to use medications. And we just, you know, sometimes you just need a good coach in life, right?

You need somebody to look at everything, help you put the pieces together. You probably know what you're doing right. What you're not doing right sometimes is just that accountability.

And like, helping figure that out. And so I, I love to do that. I love to help people just figure out these are the changes that we need to make so that you can get better.

Because like, you like, you know, my passion and love is just helping people feel better. And so my why is always, you know, I tell my husband, like the thing that keeps me awake at night when I lay in bed is just thinking like, how do I make the entire world feel 10% better?

Like, think if we could make everyone in this world just fill 10% better, the world would be like such a different place, right? And so I think we can do that with just education like this.

So I appreciate you doing this and just helping people find these little things they can do to get more healthy, which is why I called my podcast to the basics.

We just talk about basic things you can do to start feeling better. I love it. Well, thank you so much for joining me, Doctor Smith. Yeah, thanks for having me.