## Introduction and Guest Background

Welcome back. We're continuing our conversation on Reversing Crohn's and Colitis. I am your host, Sinclair Kennally, and today I am joined by my wonderful colleague, Dr. David Jockers.

He is a doctor of Natural medicine and runs one of the most popular natural health websites and DrJockers.com, which has gotten over a million monthly visitors, and his work has been seen on popular media such as Dr Oz show and Hallmark Home and Family.

He is the author of the bestselling book “The Keto Metabolic Breakthrough” by the Victory Belt publishing and “The Fasting Transformation.” He is a world renowned expert in the area of ketosis, fasting, brain health, inflammation, and functional nutrition.

He's also the host of the popular Dr. Jockers Functional Nutrition podcast. Dr. Jockers who lives in canton, Georgia with his wife Angel and his twin boys, David and Joshua and his daughters.

Joyful and Shine. He is such a great guy to go to for the nitty gritty of the gut and the inner workings of it. So that is exactly why I wanted him on this event with you guys and why what we're going to dive into today.

Welcome, David. It's so great to have you here. Thank you Sinclair. Always great to connect with you and have these conversations. Wonderful. So you and I both just love to get right into the heart of things.

Let's make this extremely valuable for our wonderful listeners. I don't know about you, but when I was searching for health strategies and things that would actually move the needle for me, it felt like such a trial and error thing.

And it and I was overlooking some of the most common issues that are actually very poorly understood even today, such as like stomach acid and the real root causes for its dysregulation and the real root causes for gut inflammation.

So that's where I'd love to take this today. Yeah. Sounds great. Sounds great. You know, I struggled with irritable bowel syndrome in my early 20s. I was a personal trainer.

And, you know, I was eating six meals a day, 5000 calories. Whatever I thought I had to do to maintain my weight because I've always been lean, and I, I dealt with, you know, tremendous cramping, bloating, end up losing about 30 pounds, right, because I couldn't absorb nutrients.

And that's when I made changes in my diet and lifestyle. And yeah, this is back in like 2002, 2004 in that range. And it was a lot easier to get people better back in those days.

Like pretty much for me, I just I read a book called The No Grain Diet by Dr. Joe Mercola, took grains out of my diet, ate more of, you know, what we would call.

But what became more of the paleo diet? This is before that term I had ever heard that term. We just call it the Healing Diet and, added probiotics. And, you know, I was eating less carbs and so I was more satiated.

Higher protein diet. I was more satiated. And, you know, I was able to heal and, and so I, I was intermittent fasting because I just felt more satiated, didn't need to eat as much.

And I was able to heal really quick. and then I got in practice and I thought, I'm going to do this with everybody. And some people got better. And then, you know, I realized I need to know a lot more because there's a high percentage of people that that's just not enough.

And that's what I cut out of meeting and getting into that nitty gritty. Yeah, exactly. That's that that's exactly what I, I would hope every practitioner's journey would be.

It's like, oh, I need to expand my toolkit. And unfortunately we see so few people willing to take that journey. So first of all, thank you for doing it because everybody benefits.

And I know that our advanced Crohn's and Colitis listeners are thrilled to hear you say that, because they've already tried that stuff. And they also know that it doesn't work for them. It wasn't that.

## Personal Gut Health Journey

So let's start by understanding the common signs, symptoms and also the lab results that someone might get with gut inflammation. What are we looking at?

Yeah for sure. Well you know most people when they have good inflammation they they kind of know it because they've got bloating, cramping, could be acid reflux into digestion.

They oftentimes, you know, it can manifest in other issues, skin issues, things like that. But of course, you know, we're thinking typically with gut inflammation, more of the GI symptoms, constipation, diarrhea, could be blood in the stool, pain in the gut.

Right. All those types of things. But of course, again, like I said, it can manifest anywhere, right? We know that, for example, Hashimoto's thyroiditis, there's huge links with issues going on in the gut, leaky gut syndrome, gut issues, even, you know, having some of these autoimmune type conditions, higher risk of getting Hashimoto's if you have celiac or just undiagnosed celiac or undiagnosed host gluten sensitivity, Crohn's, Colitis, anything like that increases your risk of developing autoimmune thyroid.

so it could be, you know, brain fog is a big issue as well, particularly with like non celiac gluten sensitivity. And so and it can manifest anywhere in the body.

But but clearly you know you know when you've got gut issues. And so we're looking at testing typically when inflammation is up we're going to see it on different labs.

Right. So if you're getting blood drawn it could be high sensitivity C-reactive protein. We we want that under one. If it's up over one you have more inflammation in your system.

And a lot of times with people with these kind of autoimmune conditions like Crohn's, like Colitis, we'll see it 30, 40, 50, 80, you know, like really skyrocketing like high that, you know, normally if you were to get, you know, like people with a heart attack, oftentimes you'll have a C react a protein 80, 90, 100.

Somebody could could have colitis. You know, the heart may, you know, be functioning fine, but they will have that same level of react, a protein which is an inflammatory protein in the body.

We might also see things like the erythrocyte sedimentation rate. high where the blood is kind of sticking together. And so the blood, the blood cells should naturally, you know, in a sense they should, they have they all have negative charges.

And so they should be repelling each other. But what happens when we have inflammation is they they lose that charge and they start to stick together and get very clumpy.

So we might see that we might see higher platelet counts. We might see something on serum ferritin, which is a stored, storage form of iron. We'll see that go up oftentimes with with inflammatory states.

So those are common when we're looking at blood. And then when we're looking at and we also see liver enzymes elevated as well alt AST alkaline phosphatase.

so if I see them up over 25, you know, the alt GT and then, if I see the alkaline phosphatase up over, you know, like 9100 somewhere in that range, we're thinking some level of inflammation impacting, liver impacting possibly the biliary tree or gallbladder.

And that's really common with these conditions. And then if we're looking at stool tests, the one that I'm most familiar is the GI map. stool test, I believe it's probably one of the more popular ones that's run.

And, you know, they have a marker caliper tacked in that is an inflammatory marker and that's elevated also. We'll see the immunoglobulin that's that's in the gut, right.

It's basically like our first line of immune defense that that's in all of our mucous membranes. And it's called serum IGA. And that IGA can be really elevated or really low depending on, you know, how the immune system is reacting to pathogens and to what it what it perceives as an inflammatory, and need for inflammation.

## Signs and Lab Markers of Gut Inflammation

And so it may we may need that inflammation because there may really be pathogens in there or we may not. And it's just it's it's not seeing the environment properly.

And so it's elevating the IGA. And sometimes we'll see the IGA really low. And that's because the immune system has been wiped out. Right. And we may also have poor we may have malabsorption like somebody with celiac disease or very low stomach acid.

They're not able to break down and absorb protein effectively. And you need amino acids in order to produce immuno globulins. And so if you're not absorbing those amino acids effectively, you may not be able to produce the immunoglobulins to amount an immune response.

And we can also see that, blood well, where the white blood cells will be low. Right. They'll be under, you know, I like to see them up around 5.0 or so, five, six, seven somewhere in that range.

And sometimes we'll see them at 2.5 or 3. And that's typically a sign that we don't either don't have enough proteins, enough amino acids to produce the white blood cells.

Or the system has just been so wiped out. in a sense, it's fatigued and it's not producing those white blood cells effectively. So those are some of the markers that, you know, that that we'll commonly see.

Yeah. That's a great run down for everybody. That's an excellent little mini masterclass on markers. So everybody bookmark that please for yourself for later.

Okay. So now that we've laid that out for everybody it's a great foundation. What in your mind are the root causes for like the factors behind those signs of gut inflammation.

What are you so sure for sure. And this really just comes down to all inflammation. because really inflammation anywhere in your body is going to come down to one of these root cause factors, whether it's your gut, your skin, whatever it is.

And so, you know, a big factor there is going to be, you know, in a sense, we call it your and I, and I'm going to link all of these things together and we call it your allostatic load.

So it's the amount of stress your body can encounter before it starts to express itself with chronic inflammation. and that it can't control on its own that that kind of spirals out of control.

And so you have mental, emotional or physical trauma or stressors. So when we think about that, we might think of early childhood trauma that hasn't been, you know, dealt with and resolved.

We could be thinking about relational issues. We could be thinking about job stress. Right. All those factors obviously play in circadian rhythm disruption.

So if you are not sleeping well at night and if you're getting too much blue light exposure at night, so blue light is a very, very, you know, basically it's like sunlight.

And so, excuse me, so very strong light exposure at night that, you know, that that's going to disrupt your, your melatonin secretion and your human growth hormone secretion.

And those are critical for reducing inflammation, improving mitochondrial health, and, basically keeping your body in a state where it can heal and repair.

And so I always recommend like one of the big factors I will talk about is like, we really should have ten hours of darkness exposure at night. Most people have a darkness deficiency.

And by darkness I don't mean completely dark. I mean we're we're exposed to either very dim red amber light or you're sleeping in complete darkness. Right.

One of those you should get about ten hours or in some cases, more of that every single night. And how do you do that? You know, you put on your blue light blocking glasses, right?

Dim all the lights in your house. you know, at, let's say 9:00, right. And then maybe go to bed at 1030, you can go to bed, you know, still at 1030 or 10:00 and, you know, sleep till seven, right?

The next morning, in a sense, right now get you ten hours. And so most people are not doing that. So they're not healing and regenerating. Well, they're inside all day, with artificial lighting.

So they're not getting sun exposure early in the day. So they have poor light exposure. So that's causing circadian rhythm disruption that's going to impact your melatonin your human growth hormone release.

And those are critical for the healing process. So circadian rhythm disruption would be another one outside of trauma. Another one is blood sugar imbalances.

You know, most people are they're not eating a diet that stabilizes their blood sugar. They're doing a lot of ultra processed foods. They're eating a lot of naked carbs, you know, without sufficient protein and healthy fats to create blood sugar stability.

So their blood sugars going up and down, that's creating a major stress in their body. It's causing them to release more stress hormones. So stress hormones can drive up more inflammation in the body.

They can cause more intestinal permeability in their gut. So that's a big factor. Blood sugar stability. another big factor there is chronic infections.

I know you talk a lot about this. Different parasites, bacteria. fungal infections in the system. So it could also be oral infections. Right. So that's a really common one whether you have gingivitis or you've had maybe root canals, but they haven't actually been fully sterilized.

And they're harboring, you know, infectious microbes or cavitation. So a lot of people have their wisdom teeth removed. And then there's hidden little pockets of infection in there because they haven't been properly sealed off.

And so these are, you know, some of the tricky elements, right. That root cause practitioners like you and I, you know, we have to kind of dig through to kind of figure out what, what, you know, they say in functional medicine, if somebody has five nails in their foot and you remove four, they're still in pain, right? They still got a nail in their foot.

And so we got to figure out what nails are in this person's foot. It could be just environmental toxin exposure. Mold

is a really big big thing if somebody is living in mold, right.

If they moved into a new home or they bought a new car and they've got formaldehyde and all, they, you know, flame retardants off gassing that they're breathing in, that could be a big factor. Maybe they just painted their home.

you know, so they're toxic. They're toxin exposure. Maybe they have an environmental, maybe they are a welder, or they work in some area. Or maybe they work at a hair salon. Right.

And so they're spraying chemicals all day long or they're they're cleaning homes. Right. And they're, they're using all the toxic cleaners. And so they're being exposed to high toxic load in their bodies, not able to eliminate that effectively.

So your toxin exposure is another really big factor there. And trying to think if I forgot anything and then nutrient deficiencies. So you know I look at that a little bit downstream.

But you know nutrient deficiencies maybe you're vitamin D deficient. Really common zinc deficiency. Super common magnesium deficiency. Maybe it's your diet.

Maybe you're just under a lot of stress and you're depleting a lot of these these, these nutrients. You're not getting the sun exposure you need for proper vitamin D, levels.

Right? But nutrient, if you're nutrient deficient, that can also drive inflammatory processes in your body. So these are all the things that we have to look at and effectively address in order to get inflammation or control.

And if any one of those is out of whack or out of balance, then that that alone can drive up this inflammatory process. Yeah, I totally agree. You know, you're speaking my level language when it comes to root causes.

So this is super fun for me. If you if you're listening to this list and you're feeling overwhelmed, like, oh my gosh, I don't even know how am I ever going to tackle all of that?

We we walk you through that one at a time. It really is just one at a time. I mean, doctor doctors just shared one of the most important things you can do is those lifestyle habits, starting with your circadian rhythm.

Like, I'm a light Nazi, I at 8 p.m. I go through the house, no overhead lights on any more. It's just table lighting. It's a very specific color range because I'm somebody that thought she was a night owl.

I would stay up and work way too late and get very poor quality sleep. And, you know, yes, I was. My peers say it's keeping me up back in the day, but also also it's the stimulation of the the color in the lighting and not just your screens, but also your LEDs and your CFLs and all that.

So the piece that comes with allowing your body to actually down regulate and go into a Rest mode is so phenomenal, you will also become a light. So you trust me, just commit because it's so good.

So if you're wondering where to start, that's where I recommend. Because if we can add in some gentle lifestyle practices to create momentum, then you could tackle this harder stuff right?

Like the deep seated. Yeah. Some of those are more what we call low hanging fruit. Like I got an apple tree out here. The first apples that we pick are the ones that are like super easy.

We just reach our hand up and grab them. We're not getting the ladder out and going up. And so the low hanging fruit is yeah, optimizing your sleep, your light light exposure like you're talking about.

Super simple. Easy really doesn't cost anything. Maybe, you know, maybe a few bucks for blue light blocking glasses or something like that. But, you know, just getting the light your light, right, is super key.

You know, we talk a lot about nutrition.

## Root Causes of Gut Inflammation

you know, in natural health because it is really a low hanging fruit just changing, you know, the foods that you're eating, the timing of those foods.

It's really, again, an easier process to deal with. so those are great places to start, you know, on this journey. you know, and then and for a lot of people, that alone makes a huge difference, you know, that really moves the needle for, for a high percentage of people.

And then, of course, there's the unfortunately the other people that they do that and they're like, I'm still not getting better right now. We've got to go down the root of all those other issues.

Absolutely. And I really appreciate you pointing out that, the further upstream infections, because I feel like the the more advanced your Crohn's and colitis my clinical observation is, the more obsessed people are.

But they're small in their large intestine thinking this is the ground zero. It's the scene of the crime. It's, you know, all of that, you know, rushing to the bathroom.

And therefore there's this like, obsession with, like, the anal fistulas or, you know, the words that unfortunately invariably come along with some of these conditions.

But actually this is all happening further upstream. And so you, you can only push those extremely inflamed parts of the body so far in the small and large intestine with your different therapies.

But if you're willing to look at your dental issues, you may actually be able to move the needle in a profound way. So thank you for mentioning cavitation like that.

Those hidden infections, like you can have a silent, completely silent infection in your jawbone from removing your wisdom teeth improperly. And were you vetting that dentist as a 16 year old?

No, you were not. You just went to your local guy. Yeah. Personal story. I mean, we're dealing with that with my wife as well. So my wife. Yeah. So she had, you know, ever since she had, you know, she have four kids, right.

And five and a half years. Right. So that that alone is a stressor on the body. and then, you know, we had a bad bout with Covid, whereas I had the same I had Covid and, you know, maybe a day or two, I was tired, I was still working, you know, and I was fine.

And she's I'm a really healthy lifestyle. I had a bad bout with that. And then ever since then, whenever she gets sick, she is down and out for like a week.

And then we, you know, she had had breast implants. We, you know, the our children are old enough to where we thought, you know, she had stopped nursing our youngest.

We're like, okay, let's get these breast implants removed because that's a huge toxic exposure that needs to be addressed. We knew that was an area that needed to be addressed, so we got those removed.

We were working on detoxing her and everything, and she still gets you sinus infections that are just really, really, really bad. Okay. And so we have holistic dentist out here and she had had a previous root canal and that, you know, appears clean, like it should have been removed.

Look good, teeth look good. But she had had her wisdom teeth removed. Right. So we get a 3D x ray, take it to two holistic Dennis, and both of them say everything looks good.

They're right. but I have another colleague that, you know, recommended Doctor Nunnally out in Texas, and he's the expert familiar with him. So we sent it out to him and he said, yeah, all for all for wisdom.

Teeth removal spots are. And there's a huge link between cavitation and issues here. And we also have our locally, we have a natural path that they do assisted lymphatic therapy.

And so I had center in there and they said that her her body looks good as far as her lymphatic system. It's moving well. But she had major blockage right up in her neck.

Right. Which is I'm a chiropractor I adjust your neck you know things like that. Just like that normally helps remove that. And so I'm thinking something's feeding that. Right.

Because they said it's, it was as blocked as they've seen in a while. Right. It was like a ten out of ten. Wow. and you know, they've been doing their work on her and the most they've got it down to is like a 4 or 5.

Right. and so something is feeding that. And so, you know, we, we, we do the 3D X-rays over to Doctor Nunnally and he says, yeah, he says all four of those wisdom teeth.

So that area is feeding right into that region. So the immune system is being overwhelmed right up in that area. And that would be a significant contributor to why she has not.

When she gets these sinus issues, she's not able to kick it. Yeah. It makes total sense because I mean this this can be very poorly done. And you know, mom and dad don't know how to vet the wisdom teeth removal person.

They're not actually looking for a specialist. This has been so normalized. It's usually being done when you're in high school or college. Nobody's really tracking it.

You're a healthy enough at the time that you kind of bounce back. Could take years for these issues to develop. And I'm so glad that you mentioned the 3D cone beam, because this is a crucial scan, everybody, for you to do on your teeth.

And it's not, your normal X-rays, your dental X-rays are not a replacement for this 3D. Can't mean this is the only thing that will actually assess for cavitation, but you have to have a cavitation specialist read the scan.

Otherwise you can get, you know, a false negative. And this is really crucial to understand. 100%. And that's that's where we ran into. Right. So now we're actually scheduling a time to go out to Doctor Nunnally and basically get the cavitation procedure that he does out there.

to get that cleaned up for. Good for you. That's awesome. I also want to before I know we have a lot to cover, but I just want to expand a little bit further on the topic of sinus infections because while we all say I'll always get to experience that, your digestion starts in the mouth.

Really, your gut microbiome starts further upstream, doesn't it, in the sinuses itself. And you can be swallowing this pathogenic issue if you have silent infections in the sinuses all day long.

And this can be, you know, an unpleasant source of, you know, distress for your gut. Absolutely. But also, you know, nausea, food sensitivities like gut microbes, disruption like this can be a serious issue if you have been exposed to pollution in the past, like all of us have, or mold in the past, that's a great area for the mold to silently colonize.

And you may not be picking that up in labs until years and years later. But the entire time you've been distressing your gut microbiome by swallowing this post nasal drip from the sinuses.

What are your thoughts on that? You want to comment on it? 100%. I think that's a really big factor. Right. And yeah, we you know, we had our whole house tested multiple times for mold, right?

Things like that, because we wanted to rule that out because I was thinking there's got to be something going on. Right. So but yeah that's a big that's a big factor.

And a lot of sinus related issues are related to mold related to, mold colonization in the, in the sinus region. So, yeah, that is a that's a big factor.

And yeah, that oral that the oral sinus region impacting what's happening in the gut is, you know, not really talked about much in functional nutrition.

Right. It really isn't. And we need to to expose more light to that. I agree that's why. And rapid gut reset we have dental rinses and sinus rinses in the very beginning before we ever get into parasites.

So guys, let's start cleaning this stuff up at home right now. You know? Yeah. Okay, so let's continue our exploration. you know, zooming out further from the obsession with the small and large intestine for these guys, I know that you have a lot of really important things to share about stomach acid and stomach acid health.

Help me miss best these dumb, you know, misconceptions that still persist even in the doctor's office about stomach acid and how this plays a role in our digestive health, for sure.

Well, you know, with our stomach acid, we actually need very, very, very strong acid to break down particularly harder to digest proteins, healthy foods like, let's say, grass fed steak.

It's healthy. Lots of nutrients, really good protein in there. But we need acid in order to really break that down effectively so we can digest the protein and break it down into amino acids so we can absorb vitamin B12, key light, the different minerals iron, zinc, magnesium, calcium, things like that that are out of there.

And what happens is at rest, our stomach acid when we're at rest. Okay. Not eating anything. We don't need to be producing a lot of stomach acid now. Our stomach is always going to be a lot lower than normal.

Then. Then kind of a neutral pH, it's usually at rest right around 3 to 3.5. Now neutral is 7.0 right. And it's a pH scale. So it's significantly more acidic in our stomach than it is.

For example in our blood or our normal water. When we eat food, let's say we're eating steak. We actually need to get that stomach acid down around 1.5 to 2.2, okay.

And it doesn't seem like that big a jump, but it's a it's a very large amount of acid that we need to produce, and it's very energy demanding in order to do that.

And by, by energy demanding. It sounds like a bad thing, but it's totally fine. It's a normal process of our body. You know, our body should be good at doing that.

and we should be, you know, the I think the idea is that we really need to be at rest when we're doing it. So there's part of our nervous system called our sympathetic nervous system.

And that's our fight or flight, part of our nervous system. And then we have our parasympathetic part of our automatic nervous system, autonomic nervous system.

And that's the part that's really focused on resting, healing and digesting. And so even when we're on the go, we've got the sympathetic nervous system up.

Right. And that's normal. That helps us be able to perform well and things that we're doing things sharply, quickly, you know, run away from stress, exercise, all those types of things.

But when we're eating, we really need to activate that parasympathetic nervous system in order to produce the digestive juices. We need to break down our food and digest and absorb the nutrients in our society.

We have this idea of fast food, right? And of course, you and I, you know, most fast food restaurants, very unhealthy food. But really, even just the idea of fast food, like eating fast, is counterintuitive to what our gut really needs to be doing.

We need to actually, in a sense, a slower meal. we need to be taking time to be able to digest and break that down. We should be in a relaxed state. And that's really key.

And so and that allows us to produce the stomach acid we need. When we produce enough stomach acid, we break down the protein. We break, we are able to absorb those minerals, absorb vitamin B12.

But then also we're able to open up the pyloric sphincter, which is a little muscle between our stomach and our small intestine that allows food to move through when we don't produce enough stomach acid.

And this is a condition called hypochlorite diarrhea. We are not producing enough acid. We don't get good digestion. The food just sits there. And when it sits there, it starts to rot and petrify and will create gas.

And that gas puts an upward pressure on the esophageal sphincter. That's the sphincter that protects the esophagus from this acid. And now that sphincter goes open and our food contents and acid will actually jump up into the esophagus, causing some indigestion.

You know, for some they notice it as a lot of burning heartburn. We think about that. For some it's just a little bit of indigestion. And for others we call it silent reflux.

Right where they don't even really know anything is going on. They don't have a lot of pain there, but it's affecting their, you know, it's a sign of poor digestion and it can affect their voice.

It can affect a lot of different factors like that. Yeah. So restriction in their throat. But because it's less they never make that connection.

## Stomach Acid, Digestion, and Reflux

Or the wrecked dental and gum health is compromised. But they don't know why. Correct. Absolutely. So all of that now leads to poor downstream. Right. So it's upstream.

But now it's going to cause problems downstream because we really need when when we have a pre digested food we call it a bolus. So we need a very acidic bolus moving from the stomach into the small intestine.

It triggers the right release of bile bile is alkaline. And so bile comes out to neutralize the pH of that acidic bolus or the small intestine. But it also helps emulsify the fats that are in there so we can break them down and absorb fats.

So we need healthy fats. We also need fat soluble nutrients vitamin A, E, D, vitamin K. It helps us absorb that. And it's also very antimicrobial. And so the stomach acid kills off the more alkaline based bacteria that's coming in on the food.

We're consuming. But then there's acid loving bacteria. And we need to neutralize those as well. And the bile does that as long as we get the right release.

And then we also release bicarbonate and digestive enzymes from the pancreas at the same time that's being pushed into the small intestine. Get that up, because we don't want a acidic bolus in the small intestine, and we want to be able to break down in digestion, absorb the food effectively.

So this is all, you know, like like a domino. And so if the first domino doesn't go down well, the others aren't going to going to as well. And so now the food is undigested.

Right. So it's moving through but it's not effectively digested. That's going to cause more putrefaction, more rotting

petrification, you know, in the small intestine.

And it's going to cause more inflammation and irritation in the small intestine. And now the small intestinal the intestinal lining is only one cell wall, thick in the small intestine.

It's designed for optimizing nutrient absorption, but it's not designed for, you know, undigested food, you know, basically food that's not digested properly and constantly coming through.

Like in our society, we're always eating. So we constantly have this mechanical stress, and that's going to put more irritation and a greater risk of irritating that gut lining and causing what we call intestinal permeability or leaky gut syndrome.

And then that's going to drive up inflammation in the blood. Right. And so now that inflammation in the blood can impact all different areas of the body.

So it starts with that gut inflammation. But that gut inflammation could be coming from you just eating too quickly and on the go. and not taking time to get the right parasympathetic tone or we call vagal tone vagus nerve is a main branch of the parasympathetic nervous system, runs from the brainstem down into all of our visceral organs, including our stomach.

Helps helps produce, the right amount of stomach acid, bio and pancreatic enzymes to digest our meal effectively. So if we have poor vagal tone trying to eat our meal, that alone can cause this major stress condition.

And, this, this gut inflammation. Yeah. Beautifully said. So given all of that, how is somebody supposed to think about their gastric juices? Like, am I supposed to be actively managing this now that I've created this huge problem?

That's probably been years in the making? Like, what should I be doing to support my stomach acid, my enzymes, my bile flow? Where would you like? For sure, for sure.

Well, you know, first thing you could do is just take a few deep breaths. In fact, something called box breathing, has been shown to help improve vagal tone.

And box breathing is just basically, you think about it like a box at the top. You have a four second inhalation. It doesn't necessarily have to be four seconds.

It's just kind of the most well-researched way a box breathing could just be two seconds in the beginning. If you feel like four seconds is too intense, but basically it's a four second inhalation and then you hold for four seconds, and then you exhale for four seconds, and then you hold for four seconds, and then you inhale for four seconds.

Right. And so I recommend doing basically somewhere between let's say 3 to 7 rounds of that. Okay. That's roughly 1 to 2 minutes. and that alone will help activate the vagus nerve.

And that's a really good idea, especially if you feel like you've been on fight or flight. Right. Your system's in fight or flight. It's a really good idea.

You can also munch on some ginger root. The pungency of ginger, activates the vagus nerve, right? That very strong, kind of stringent spicy type flavor activates the vagus nerve.

You know, another thing that a lot of people do is put a little bit of apple cider vinegar, like a tablespoon of apple cider vinegar in, let's say, four ounces of water, a usual like gulp of water is about two ounces.

So it's like two ounces, or two gulps of water, but four ounces in there, you know, a few minutes before you eat. And that can also help activate the stomach acid.

Now, a key test is if you do that one tablespoon in four ounces, you actually notice a lot of gut pain, like a lot of stomach pain when you do that, which some people will, it's actually a sign you may have an ulcer.

So your stomach lining may have broken down so much that it doesn't have the thick mucous membrane protecting it, and that acids irritating it. Right?

If that's you, you actually don't want to do the apple cider vinegar. Then you want to do a lot of glutamine or aloe vera, or you can drink like slippery elm, marshmallow root tea.

A lot of these types of, mucus agonists, type of, compounds. Right. Or herbs that will help rebuild the mucous membrane in there. Okay. And then of course, you want to figure out why you might have that.

It could be overuse of NSAIDs. It could be a H. Pylori infection, something along those lines. but for most people, you know, you take the apple cider vinegar.

Most people feel pretty good when they do that. Now there are some people also that have histamine issues, right? They may not do the apple cider vinegar.

the ginger root though can be helpful in the box breathing in that case. Right. So we got something for everybody. Right. And so try to do at least one of those things.

And that can be really, really helpful. And then, you know, just, you know, like before I eat, I pray. Right? And that idea of praying before you eat is, is obviously a great way to, to grow spiritually, but also it puts you in a parasympathetic a state of gratitude.

Right. And that's that's parasympathetic. It's going to activate that vagus nerve. Right. So being thankful for your food for your meal and not just gulping it down because you're on the go is a really good idea for producing those digestive juices properly.

Now, other things, you know, we always say like like when it comes to bile flow, we always say bitter is good for your liver. So using bitters and there are supplements that you can use that are bitters.

And you can also just try, you know, real food. You know, whole food bitters. Right. Dandelion. You do herbal teas with them or you could just eat them.

sprouts. Right. A lot of different. Like we grow sprouts here in our kitchen basically. and we'll just take sprouts with all of our meals. broccoli sprouts, radish sprouts, those things, they have this, you know, natural bitterness to them.

And that can help stimulate good bile flow and thin the bile. And so that's really helpful. Radishes. artichokes, leeks are helpful. you know, I'm missing a bunch, but cilantro, parsley.

Right. All of a. Lot of citrus. Everybody's favorite I they of course it's coffee. Exactly. Yeah. And so if there's any of them that I said that you're like, oh, when I eat that, I just flare up and don't don't do that.

Don't do it. But then there's we can find something for everybody. Yeah, absolutely. And you know, there's, there's something to be said for this obsession with bile flow.

You know, of course, I'm always obsessed with viaflo or liquid gold detergent in our bodies. I mean, we. Should be, right. It's really important. Yes it is.

And we're not living a lifestyle by default that actually supports healthy digestion, which requires that easy bile flow. Right? So by default, we've got gummy, sludgy bile at this point, especially the older that we are.

I would venture to say that, I mean, I realize that I have a skewed practice because of who comes to me, right? That's sensitive people with chronic digestive conditions, but there's always work to do in that scenario on bile flow.

So I just love. This 100%. Now, the good news is, pretty much everything that supports good stomach acid production is also going to support good bile flow, and vice versa.

If you're working on things to support your bile flow, you're going to improve your stomach acid production. So they go hand in hand. And that's that's the good thing.

Yeah, is an important clinical observation to make because the stomach and the gallbladder always coagulating release. And when you no longer have a gallbladder, of course the rules change because your liver is just dripping bile into the small intestine.

So if that's you, I totally get it. You know, you probably had to do that for your own safety. And there are other strategies that you'll need to use in order to maintain healthy digestion.

But what I really want to get to with, to today, David, is, I know we need time to talk through nutrition choices, but because we just spent some time on some digestive aids, I know that there are people in the audience that are thinking, But I'm too sensitive.

I have now become so sensitized that maybe that would have worked for me earlier on in my disease progression. But now I'm at the point where I could tolerate very, very little.

What do you like to start with this folks? Yeah. So with those individuals, again, going back to breathing, sleep light a lot of those types of things, it seems like, well what is sleep have to do with digestion?

It has a lot to do, you know, with your body's ability to heal and repair, getting your body into parasympathetic mode, helping activate the vagus nerve, all those types of things are going to really get that digestive process moving in the right direction.

Sometimes we need to add supplements like a beta HCl.

## Supporting Digestion and Bile Flow

in some cases, you know, things like that. can be really, really helpful. But you start with the foods that, you know, you're able to tolerate well, you know, effectively. Right.

And then from there you can we can start looking at kind of the, I would say the least allergenic types of foods. you know, whether it's you know, things like, trying to get good protein right into your system.

Right? We need protein for a wide variety of things. So we got to get the stomach acid production right for that. So whether it's beef or chicken or lamb or, bison or something along those lines, trying to get some good protein in some cases, you know, I've, I've, I've had people that like any solid foods I couldn't handle.

And so I've done an elemental diet with them. And you can just basically order these shakes, basically their elemental diet and they're broken down like, you know, into into individual amino acids and, you know, they don't most of them don't taste great.

I know, our colleague, Doctor Michael Ruscio, he's made some good ones that actually, taste better. Right. So, but I've had people do that, you know, for a few days, and I even have one lady I remember, you know, a few years ago, back when I was back in clinical practice, and she had to do it for two weeks.

Right. But it made a huge difference for after that, she was able to tolerate foods. You know, we put her on a low Fodmap diet after that. and then, you know, it was a semi elemental where she would do like one solid food meal, you know, with lower Fodmap vegetables and healthy proteins.

And then we graduated that up to two meals like that and one shake. Right. And it was kind of just a gradual process. I mean, I think about it kind of like, you know, if you break your ankle, you stay off your ankle, you know,

for a period of time.

So the elemental diet, right, is, in a sense, putting the least amount of mechanical stress on the gut. the got really doesn't have to do much right. It's basically stuff coming in that's in its most absorbable form.

And, you know, so we're able to get nutrients in the body, without stressing the gut. And then from there, you know, we start to gradually just kind of like you're trying to rehab an ankle, you're getting a little bit of weight bearing on it. Right?

But then you need a lot of time to recover. So we're gradually starting to add back foods that tend to be most well tolerated. Right. When we talk about Fodmap groups, these are, you know, seemingly healthy foods like broccoli cabbage, right.

But they're higher and FODMAPs are higher in, these carbohydrates that the gut, the the gut bacteria break down right. And normally they should be able to break them down. Fine.

And they should be able to pre short chain fatty acids that are anti-inflammatory for the body. But you know, for a lot of people that have really damaged guts and they have small intestinal bacterial overgrowth, they're metabolizing them in the small intestine or producing a lot of gas bloating, cramping and a lot of, a lot of health problems.

And so we start with these lower Fodmap types of things, even things something like like rice for somebody that can tolerate it like a white rice is low Fodmap carrots are lower Fodmap well steamed right.

So we're doing some of these types of foods that you know are just easier on the system. Right. We're avoiding raw vegetables. We're sticking with, you know really well cooked vegetables.

You know there's another program called the Gaps diet, where they're doing a lot of soups and stews, you know, because it's in a sense, the heat has done a lot of the work, you know, so it's easier on the digestive system.

So we have to kind of start back slowly. And again, you got to think about it like rehabbing a broken bone. and then you're gradually increasing the stress on the system.

Right. In a way that the body can still heal and adapt. And ideally, you know, you're optimizing the things we talked about, like good sleep. So that's enhancing your body's ability to now heal and adapt.

And we want to make that stress actually strengthening. Kind of like exercise you know like I'm going to exercise after this. I'm going to stress my body.

And if I were to take my blood work after I do this workout, I look like I'd have a heart attack. But I'm going to get the rest and recovery I need in the nutrients I need and my body's going to heal.

It's going to get stronger and more resilient because of it. And that's really the key is as we're stressing the system, we are allowing for the time to heal and repair.

So now the next day, you can get up and do it again. Yeah, I think that's really well said. It's so important to acknowledge, first of all, that, I can't tell you how many times people show up in my office and in.

They're one of two camps, right? They're saying, okay, I'm on the I'm on the Carol diet or the Susan diet or, you know, the George diet, where they're down to less than ten foods, maybe less than five foods, and they're still actually pretty inflammatory foods.

## Sensitive Gut Recovery and Food Reintroduction

They're just foods that they have grown comfort with and they're nervous system can't handle them. Not

necessarily good for your digestion. So for those folks, I totally get it.

I was I was you. You should have heard on my list of three foods. I don't disclose it publicly because they're not three good foods. Okay. But they were what I was down to.

So it's it's we actually need to look at what is the least amount of work possible for your body to digest and absorb when you're already in that dysregulated state.

So it's either one of those people, right, where we actually have to like reclaim a little bit of like, what's the anti-inflammatory? What's the easiest way in to nutrients when you're already in that dysregulated state?

Or does the other camp are people that are like, but I have to have my 70 ingredient raw vegan bull, or I'm not being a good, healthy person, like, okay, but you're eating enough inflammatory, nutrient dense superfoods to fill an elephant.

Like there's no way this is like a maintenance food strategy. Once you already have a gut that can digest rocks like, let's slow down, don't eat the rainbow.

In the beginning, I like this metaphor of like, slowly building up and slowly retraining with a healthy amount of stress. Yeah, I think that's super key.

And when I think about like various types of foods, I mean, obviously you and I both agree. Hey, everybody should be on a real food diet. We should be avoiding ultra processed foods.

Unless of course the semi elemental diet is ultra processed, but it's, you know, it's a tool for, for a specific, you know, short term, short period of time.

Right. that's the key there. But in general, we should all be doing a real food diet. Now, how many at how much animal foods versus plant foods and things like that.

It's going to depend on the individual. Like I think about it like a bell curve on one side of the bell curve. You've got individual cells that they're producing plenty of stomach acid, but gosh, they just do not break down plant fiber very well.

These are the individuals that tend to really thrive on like a carnivore style diet. Okay. And they seem to do really, really well on that sort of diet.

And then on the other end, you've got the people that they struggle. They're not they don't digest meat very well. Right. But they do digest plants really well, and they can do higher amounts of fiber and FODMAPs, and they feel better when they do that.

And then, you know, those these are the outliers on both sides. And then you kind of have like the middle. We're all kind of somewhere on this spectrum.

Most people are somewhere in the middle. Or may they might lean, laughed or lean right. And you kind of have to find, in a sense, the threshold level of fiber FODMAPs, right, that your body's able to tolerate well, you know, and be able to digest effectively.

And that's all comes in with the personalization. You know, we here in, functional nutrition where I'll be here, you know, people are so extreme about things.

Histamines are the worst. Oxalates are terrible, right? Red meat is terrible. Yeah. And you get these gurus that are about one diet, and they live in their own little echo chamber with other people that that diet worked for.

And so they think everybody should be on it. And they have these really misleading statements. Thank you for

calling that out. Yeah. So it just needs to be personalized. Exactly right.

I think any of these kind of real food based diet plans can be therapeutic for the right individual at the right time. Absolutely. Whether it's a plant based vegan diet for the right person at the right time, carnivore diet for the right person at the right time.

Right. Or, you know, an omnivorous diet that's, focused on the foods that that individual tolerates and breaks down, digests most effectively. These are all can be tools that can be used to help that individual really thrive.

And I hope what people are taking away from this interview today is how many gems you've given about how our digestion is habituated and with intelligent, thoughtful supports in your protocol, you can actually shift that.

So maybe you're somebody that has stayed away from red meat, even though you think your body needs it because you don't do well with it. But that's not your constitution.

That would be your call. And you can actually retrain your stomach to create higher levels of stomach acid naturally. And part of what you'll how you'll do that is, like Dr. Jockers were sharing before, his favorite strategies to get your power flow moving.

Because these two substances coagulate, right, the acid and then the alcohol and of the bio. So that great gems today clinically. Any last thoughts you want to share with the audience about personalizing your nutrition plan for best results on your road to recovery from Crohn's and Colitis?

Yeah for sure. Well, I think that, you know, you really have to find the foods that your body is going to function best with. And it's always it's always good to know kind of kind of be able to lump foods into certain categories. Right.

You might have higher oxalate foods, for example. Some people may do really bad with high oxalate foods that would be like things like spinach and chocolate nuts.

And then others may do fine with that, right. Higher histamine foods. So you kind of want to be able to lump foods in there. Actually have a really good article on my website.

## Personalized Nutrition and Closing Thoughts

It's I think it's something like what's the best nutrition plan? Right? I go I go through all of this. Right. Exactly how to how to understand that and just kind of figuring out which of these foods are really tend to be more of a inflammatory driver for you or not. I think that's super key.

And then really trying to stick with obviously the foods that you seem to tolerate best while you're working on optimizing your digestive juices because they're going to do the work for you.

and so as you're doing that, and the longer in a sense, if you're optimizing your digestive juices, optimizing your sleep, your blood sugar stability, all these types of things, your body is a self-healing system.

And so if you get enough of these things under control, you're going to heal and regenerate. You're going to become more resilient. And that resilience is really about your body's ability to adapt to the stressors it's under.

The more resilience your system is able to build, the more you're going to be able to tolerate different types of foods. Right. And, you know, more varied, more variation in your diet because your system is more resilient.

That's key. And so there are certain tools, you know, that, that we can use. We talked about some of them, today that really help build that resilience.

And I think it's just it's a lifelong process of figuring out where your resilience is today. Right. Because it might be different today than it is tomorrow, depending on how you slept last night, depending on the argument, you may

you may or may not have had with your spouse.

You know, the stress that your child put you under. you know, all of these types of things go into where is your resilience point right now, today? And how is that, you know, how does that play out in the decisions you make, in your lifestyle today?

I love it. So where can people find your work? Yeah, you find me at drjockers.com. And then also I have a podcast as well. I've had you on there, Dr. Jockers Functional Nutrition podcast.

Excellent. Thanks so much for your contribution David. So appreciate you. Thank you Sinclair I appreciate you.