

EPISODE 176

[INTRODUCTION]

[0:00:11.2] AVH: Hey guys, we're talking about gut health today, talk about a popular topic in the paleo world, right? It's almost an inexhaustible one because it's so incredibly complicated and multi-faceted. There are so many layers when dealing with gut health, from food, to lifestyle factors, to different auto immune issues that you may be dealing with and then you can talk about preventative measures and treatment and my head is spinning just thinking about it.

I'm sure everyone listening has either suffered from gut health issues at some point or know someone who does and it can be so frustrating because it seems like there's almost never a clear cut diagnosis, or culprit, or even treatment. That's why I'm talking with Dr. Michael Ruscio today.

He's a clinical researcher and author who practices functional medicine with the focus on digestive conditions. Dr. Ruscio has his own podcast and blog where he talks about gut issues and he's a frequent speaker at events about these issues as well. So, I get to ask him all the questions that us, non-doctors have about gut health that we may not have had a chance to ask health professionals about.

Questions like how to determine what your issues actually are, what they stem from, how to fix them and even the order in which to take these steps. Sometimes I feel like it's just – it seems so layered and complicated like what do you do first? How do you even start figuring out the problem? That people become overwhelmed and they just give up entirely.

We don't want that to happen obviously. If you're struggling with any gut health or digestive issues or you know someone who is, this is an episode that you probably want to give a listen to. Before we dive in with Dr. Ruscio, here is a quick note about today's show sponsors.

[SPONSOR MESSAGE]

[0:01:50.2] AVH: Today's podcast is sponsored by Clean Made Market and the Clean Made Food Fest. Taking place this October 21st and 22nd at the California Market Center in downtown Los Angeles. This market plus food fest is essentially a family friendly, health and wellness lifestyle experience for folks who want to enjoy some healthy food and learn about new brands, products and services for clean living.

The clean food fest is this all-inclusive tasting event that features more than 50 of So Cal's best chefs and restaurants and whether you're Paleo, Gluten free, Vegan, all of the above, this festival has food for you and whatever your preference, the event is judgment free but it's also free of gluten, dairy, soy and refined sugar which I know us paleo folks are into.

Clean food fest is basically, it's a great event for people with food sensitivities but just people who love food and like to eat well and healthfully. The coinciding Clean Made Market, it's all about clean living. So attendees can learn about and shop a bunch of sustainable brands, products and services as well as checkout interactive workshops, cooking demos and talks from industry leaders in categories like beauty and wellness, energy and sustainability, tech, pets, fitness, I could go on.

And, Paleo Magazine is a sponsor of the event so we will have a lounge there so you can come and hang out and say hi to us, as if you didn't have enough incentive to go to this already. Yeah, it's going to be great, if you want to learn more or attend this event, check them out online at cleanfoodfest.com.

[INTERVIEW]

[0:03:42.2] AVH: Dr. Ruscio, welcome to the podcast. Thanks for being here.

[0:03:44.7] MR: Hi, thanks for having me.

[0:03:46.5] AVH: Alright, I have a lot of gut health questions for you but before we get into it, I have seen you described as an alternative physician and it also says here that you practice functional medicine treatment of digestive and thyroid disorders. Can you explain to us what those terms mean? What is alternative physician? What is functional medicine?

[0:04:05.4] MR: Sure, I think maybe the best way to describe functional medicine, there are some definitions that are used by major academic bodies, but I don't really think they help the lay person really understand what that means.

The functional medicine is really where I think much of alternative, natural and integrative medicine is going. It's not conventional medicine, it's a different form of healthcare, again, more natural alternative or integrative in scope. I think the main distinguishing point between the two is conventional medicine is great for acute care.

The best in the world at acute care type interventions but when it comes to the management and treatment of chronic, degenerative diseases – things like depression, IBS, fatigue, insomnia. You know, many of these conditions, there's not necessarily always great conventional medicine treatments and this is where of course, more preventative integrative and natural medicine I think really shines.

I was classically trained in chiropractic and did further education in functional medicine. That's what I focus on now and within my niche, I focus almost exclusively on digestive conditions but I also do, do some work in thyroid. It's a really interesting time I think in healthcare and medicine because depending on what maybe, what stereotypes you kind of are fostering because we're all fostering some kind of stereotypes.

You may think that a natural doctor like a natural pathic position is a total cook or a chiropractor only cracks specs. Which is understandable but there's really a lot of integration between conventional medicine and these different types of alternative medicine providers.

There are chiropractors like myself that focus exclusively on digestive issues and we're performing clinical research at my office, some of which is already on route to be published in a medical journal. There of course are a whole lot of chiropractors that just do more, just your standard kind of chiropractic adjusting. But there's really kind of been this, I guess tearing down of these boxes and there's a lot more integration between different disciplines.

I think that kind of answers your question, or at least I hope it does.

[0:06:24.5] AVH: Yes it does. I mean, I think it's kind of funny that we live in a world where natural preventative medicine is considered the alternative, right? Like, shouldn't that be the baseline and shouldn't sort of medication and other stuff be considered the alternative. I mean, in a perfect world right?

[0:06:39.4] MR: Right. I mean, in some countries, that's really the way it's looked at people, go to see the natural doctors first and the conventional doctors come to the last person that they go to see.

[0:06:49.2] AVH: Right. Okay, let's talk gut health and let's start with baby steps here, let's talk about our microbiome. Obviously, that's a big topic but it's something that I think our listeners are always very interested in and willing to learn more about.

First, what is a microbiome?

[0:07:05.5] MR: Sure. Well, technically, it's the microbiota which is – there's different microbiota's, essentially what a microbiota is, it's kind of a community of bacteria. There's a microbiota in the gut. Microbiome means the bacteria and their genes. But really, the microbiota just means the bacteria and so we have a world of bacteria that live in our gut and that can help us, we have another world of bacteria that live in our skin.

We have bacteria in our urinary tract, bacteria in our lungs, bacteria in our mouth. We're learning that we've really co-evolved with these bacterial communities on different surfaces of our bodies and changes in these bacteria can make us either healthy or sick. Depending if it's a positive or a negative change because we have like an evolved in this symbiotic, which kind of means 'I scratch your back, you scratch mine' relationship.

A lot of the – in my opinion, more relevant information regarding the microbiota is regarding the gut microbiota. To put it really simply, when we're talking about the gut microbiota, it's just a newer term of describing your gut health. Now, we're learning a lot of new stuff about it but when someone says their gut health and their microbiota, in my opinion, they're fairly interchangeable.

If we were at a medical conference, we draw a very distinct edges between how we use the terminology but just for general conversation purposes, people have probably heard a discussion about gut health previously.

Now, kind of the in vogue, nomancy for describing gut health is just using the term microbiota.

[0:08:50.4] AVH: Okay, got it. What are some of the major ways we can tell that we are having gut health issues, other than the obvious right? Digestive distress is a pretty big symptom but there's a lot of ways it can manifest right?

[0:09:06.0] MR: Yes, that's one of the exciting things that we're learning is there are people that have problems in the gut or problems in their microbiota, that are causing problems in other areas of the body. Like they may be causing fatigue, or skin rashes, or hormonal imbalances, or depression.

But they have no digestive systems at all. There can be a problem in the gut that's silent in the gut so to speak but driving problems elsewhere. Some of this used to be thought of as kind of left winged, cookie, alternative medicine concepts but we're now starting to see published in some of the pure view medical journals, pretty compelling evidence that there is definitely a well-defined connection between things like your gut and your brain, or your gut and your skin.

Even more importantly, that there are certain treatments that can improve these areas. For example, certain dietary changes have shown to help with certain skin conditions. Probiotics have shown to be efficacious for the treatment of anxiety and depression. Treatment of bacterial overgrowths have been shown to help with neurological conditions like restless leg.

Yes, you know, there's definitely a far-reaching impact of the gut. Now, to your question, how doe someone know? Of course, if they have classic digestive symptoms like gas, bloating, constipation, diarrhea, abdominal pain, in the stools, heartburn reflux – that gives you a pretty good giveaway that there is likely a problem in the gut almost for certain.

Where it gets a little bit hairy is, how do you know if something like insomnia, depression, fatigue is being driven by a problem in the gut? That's where it's much more difficult to figure that out. There's not necessarily, if you have insomnia and fatigue, you have a gut problem but if you have insomnia only, you don't have a gut problem. There's not really a very slick symptomatic way to pin that down but rather, what I would advise people to do is look at this as a kind of process where.

If you've taken some time and you've gotten yourself on a decently healthy diet and lifestyle plan. Meaning, you're getting some sleep, you're getting some time outside, you're getting some exercise, you're eating a paleo-like diet, generally devoid of processed foods, if you're doing all those health fundamentals and you're still not feeling much better, then next thing I would do is investigate a problem in the gut.

Now, why is that? Because someone might be looking at their symptoms and saying, "I don't know, this looks a lot like it might be hypothyroid or a problem with thyroid conversion or this might be a problem with mercury toxicity or this might be a problem with inflammation."

I think most people are in agreement that the first system that needs to be addressed is the gut. If someone does have for example, mercury toxicity, often times, the recommendation is, get your gut healthy first because part of what we have to do to pull out some of these toxins is to have you orally swallow compounds to help with the degasification. If you can't tolerate them because your digestion is sensitive or you're not absorbing them, it's going to make resolving those things much more uncommon.

More importantly, in my mind is often times, the symptoms that one, things that are being driven by thyroid, or mercury toxicity, or inflammation are often times actually being driven by a problem in the gut. Not to say this is a panacea, it's not a cure all, but if you want to organize all the stuff that we read about on the internet into a logical hierarchy, we would start with diet and lifestyle foundations and then we would move to gut health and then we consider moving on.

[0:12:59.1] AVH: Okay. This is obviously a much more complicated issue than a lot of people take it to be. As you've said, gut health can manifest, or the lack of gut health, can manifest itself in a lot of different ways but I think conversely, gut health can be affected by more than just

food, right? I think one of the things that makes even more complicated for folks who are trying to sort themselves out is maybe their food is pretty sorted as you said.

Maybe they've got a whole foods, unprocessed paleo diet, but maybe there are other lifestyle factors that are not in place that are still affecting them. Can you talk a bit about that? It's not just food right?

[0:13:42.1] MR: Exactly. Actually, I'm glad that you made that point because I know one of the things you wanted to talk about later was you know, what are one of the biggest misconceptions in gut health and so, this is a kind of a nice tie in to that. You know, right now, one of the things that we're observing and a lot of the microbiota literature is that, when people don't have a high amount of diversity in their intestinal bacteria, that correlates with many disease conditions.

It's lead many to make the recommendation that we have to feed our gut bacteria with things like fiber and prebiotics but what's often left out of that conversation, and is really unfortunate, is that there are other things that can positively contribute to your gut microbiota diversity or that healthy bacterial colony in a healthy way.

Exercise has been shown to acutely either help or be detrimental to your gut bacteria depending on if you're getting the appropriate amount of exercise, or if you're sedentary, or over exercising. Exercise is one, sleep is another. Stress is yet another still, they for example shown in college students before they take exams that the healthy, lactobacillus species of bacteria dwindle in that pre-exam stress.

Definitely, what's unfortunate is that sometimes when we start learning a lot about a certain field, we get this kind of tunnel vision right? Where there's not enough bacterial diversity so we've got to just feed them with fiber and prebiotics and you kind of see this as a little bit of a bandwagon forming. Where everyone's trying to jump in the band wagon but sometimes people are forgetting that the only way to – or I should say it this way.

There's more than one way to improve the health of your intestinal bacteria and just because we're learning about how prebiotics and fiber affect the gut, shouldn't mean that we take our

focus off of these other fundamentals that are very important. Like stress, circadian rhythms or sleep rhythms and exercise.

There's you know, all these things definitely can positively impact your gut health and you know, there's another study done in rugby players, they looked at a group of rugby players compared to a group of age and sex match controls – meaning there were two groups that were very similar but one group was getting exercise and the other group wasn't getting really much exercise.

They showed that even though the rugby players were not eating a diet that was better at feeding gut bacteria, they actually had healthier gut bacteria. Probably because of the impact of exercise. Yes, these fundamentals are definitely something not to be overlooked and I guess in just short answer to your question, there are multiple dietary and lifestyle factors that can have a beneficial impact, excuse me. On your gut health.

The dietary piece gets a little more hairy because there's some nuances that we want to draw. But yeah, definitely, these basics definitely have a size of one pack.

[0:16:43.8] AVH: You said earlier that if you're generally sorted out with most of these lifestyle factors and you're still having issues, you should look to your gut for possible challenges or issues. What if someone isn't sorted out? I guess I'm speaking from a little bit of personal experience. I have friends and I have people in my life who suffer from digestive issues and gut issues and maybe they don't have really anything fully sorted out, like maybe their exercise isn't great, the stress isn't great, sleep isn't great, food isn't on point either.

What's the first step? What do you do? I just feel like it's so overwhelming for people because they don't know where to start and so they just give up, they resign themselves to certain level of discomfort or you know, you take medication and put a bandaid over the problem. But if there are all of these steps that need to be taken, what's first, how do you start?

[0:17:33.6] MR: In terms of like these foundational factors which one might be the most important out of all of them?

[0:17:37.7] AVH: Yeah.

[0:17:39.4] MR: I would say diet is probably going to be the most important because that's something that you're having a few meals a day and that's kind of a repetitive input. Diet would be the foundation and I should mention that people really don't have to be perfect but you know, you don't have to be sleeping like nine hours a night and meditating for 30 minutes every day and eating an all organic, perfect diet.

[0:18:04.8] AVH: Thank goodness because none of us would be okay then.

[0:18:08.1] MR: Right, the point I'm making is, try to at least take some steps in the foundational areas before you move on to maybe considering seeing a doctor, doing some lab testing, buying some salt mints, doing some self-experimentation because you may have an answer with those foundational things that are cheap and you know, somewhat easy to implement. Rather than going on to kind of your tier two things, that would be more direct treatments for the gut.

Diet I would say would be the most important if you're going to put your energy into anything. It would be putting it into diet. Don't think that you have to be perfect with all of these things but the general broad stroke, I think for people to take away from this is, do your best to clean up your diet and lifestyle a little bit to make sure you're just not doing anything that's salaciously bad for you right?

Try to be at least you know, somewhat okay in these areas and after that, if you're still not feeling better, then you may want to look into getting some help. Because you certainly can be treated for something like small intestinal bacterial overgrowth if you're stressed or if you're diet's not perfect.

But you want to try to get those things at least moved along a little bit because that's going to help you have a stronger foundation from which to then go into this next level of intervention.

[0:19:23.8] AVH: Right. I suppose it's not against striving for perfection but more of an awareness that all of these factors do impact your gut and then in turn, your gut health impacts all of these factors. It's like a cycle that you want to try to make a healthier cycle, right?

[0:19:39.9] MR: Precisely. Sometimes the pursuit of perfection actually ends up doing quite a bit more harm than it does good because I'll see patients that come in and they're neurotic about their diet and unfortunately, they've stopped hanging out with certain friends, they've stopped engaging in certain social activities because they don't want to have any gluten or any dairy because they've read some overzealous gluten bloggers information about how gluten can kill you in a thousand and one ways.

You know, that actually ends up doing more harm for the person that it does good. Certainly there are some people, especially if they have of course celiac disease that need to be diligent in their food and avoidance. We shouldn't make everyone avoid gluten as if they had celiac disease just because people with celiac disease need to. The unintended consequence of that is the psycho social stress that you put upon people when you make them think they have to be perfect in gluten avoidance in order to be healthy.

Then they stop, again, hanging out with certain people or engaging in certain social events and those things have definitely been documented to not be good for your health. Isolationism is not healthy and orthorexia or obsession over diet is not healthy either.

[0:20:52.6] AVH: Talking about these tier two tactics and maybe actually going and seeing a doctor and trying to work through with a professional. You are accepting patients, right? Do you still take on patients?

[0:21:04.4] MR: Yes, thankfully, I've worked really hard to make sure that we're able to always accept new patients and we are – I can't say that would be the case forever but it's always in my priority to always be accepting patients because it's such an important part of you know, everything that we do. So yes, it's something that it's important to me, I'm currently accepting patients, my plan will be to always be accepting patients.

[0:21:29.5] AVH: how does that process look whether someone is local or if they're doing it online, how does that process work?

[0:21:38.8] MR: That's a great question and you know, a lot is changing in medicine, even in conventional medicine, they're really starting to endorse these tele-visits on major hospital centers now allow people to do their first visit for certain conditions or complaints all via phone or Skype.

There are other fairly large medical practices that are now engaging in Skype consults and if you think about it, it's just really embracing technology. There are definitely some things that you'll need to be seen physically for right? If you have a rash or you think you may have broken a bone or whatever like yes, there's always going to be that. If someone is having a flare of maybe IBS and a lot of that is going to be assessed via their symptoms or having them go down to the local lab center and have a blood draw and then the result are sent to the doctor's office, you don't actually need to be seen in person in order to do that.

We do a hybrid model where we see some patients exclusively in person, if that's your preference. Some we see both in person and via phone or Skype if they're maybe like an hour away and then some people we see exclusively via phone if they're far away. It works very well for gut and thyroid related conditions. It works very well but it's also important to remember that this is not a replacement for conventional medicine so if someone for example has...

Let's say I have involuntary bowel disease, we want to make sure they're following up with their gastroenterologist for whatever follow ups they're recommending. Because we want to make sure that the inflammatory bowel disease, God forbid never start to turn into something that's cancerous, which can happen and happens in a small number of cases but we don't want to turn a blind eye.

Of course, that's something you have to go in physically for endoscopy or colonoscopy and have that monitored. You know, the functional medicine model, those very well lend itself to tele-medicine but just also don't forget that there's another side of this which is maintaining your conventional follow ups. Which often times require in person visits to have a physical at some of these things. Thyroid would be another example for patients that have Hashimoto's hypothyroid.

You want to make sure that you're having periodic follow up's because some of the change in the thyroid gland can lead to malignant lesions in the thyroid glands, you want to make sure that you have those things screened also.

[0:23:57.8] AVH: Right. If someone can't work with you, how do we go about finding a doctor who can help, especially if we don't have a diagnosis yet? Find someone who is into functional medicine, who isn't just going to maybe prescribe some kind of medication. How do you go out and find the right kind of doctor for you?

[0:24:16.2] MR: Well, that's a good question also. We've done a podcast on this in the past where I kind of lay out some specifics in terms of things to look for and so there's some important background here to understand. I think everyone in functional medicine is trying to help people but there's also in my opinion a bit of over zealousness in functional medicine.

Overzealous in this can cut both ways. You're really excited about functional medicine, you're trying to help people but what I've noticed is often times, in attempts to help people and to try to help them to feel better, sometimes clinicians inadvertently rift into a model of functional medicine that's a bit excessive. And what this manifest as is thousands of dollars worth of lab testing to get started and really excessive dietary recommendations and lots of supplement popping.

I've been an active proponent of really updating the functional medicine model to try to be more efficient and more cost effective. Why I mention that is because it's important for people to understand this, that when we're looking for a provider, because some providers kind of get this and they're going to be cost effective, they're going to be conservative, they're going to be practical and other providers are a bit more over zealous and dogmatic.

What this can look like is again, when you go in, one doctor may say, "Well, we can probably do a couple of tests, get a good initial assessment of this and that's how we'll need it. If your insurance covers it, great, no out of pocket cost if your insurance doesn't cover it, you're looking at maybe eight, nine 10, \$1,200 for a lab bill." That's scenario one.

Scenario two may be, “We’ve got to test everything, we need all the data, this all has to be evaluated and it’s going to cost you \$6,000 for your initial lab bill.” That creates two very different experiences for the patient. I think it’s important that we just recognize that and I’m not saying either one is right or wrong but I would like to see more people start with a more conservative approach so as to be more cautious with how much money they’re asking their patients to spend.

It also manifests with diet. Sometimes like I was hinting at earlier, people get these dietary recommendations that are very strict and they’re far more strict than even the person needs to follow. This ends up kind of leading someone to believe that they have to follow a much more strict diet than they need to. That can be hard for someone to comply with, right?

They may want to go out on a weekend with the girl friend or guy friend and you know, grab a drink and have some food and they get really stressed about doing that because they’re so worried about the food that they’re going to eat.

Some things to look for I guess is someone that’s going to be both progressive but a little bit conservative and that it just kind of makes sense. What they’re recommending doesn’t seem excessive, it doesn’t make you feel pressured or pushed, it doesn’t feel like it’s going to be overly hard, they listen to you, they’re open minded and the financial structuring of it isn’t something that seems like it’s going to be excessive.

You know, a lot of times, there are components of this care because it’s more progressive, that’s not going to be covered by insurance. Spending some money out of pocket is okay but if you’re getting up into the few thousand dollars plus then you may want to kind of rethink that. In my opinion, there’s some exceptions to that rule. So if there’s any providers listening that you know, practice this way, I don’t mean to offend anybody because there’s always an exception to a rule and that’s a risk I take when trying to make these generalizations.

There are exceptions to that rule but you know, as a starting point, those are some things for people to look for in terms of red flags compared to green flags. Then how to find someone, there are certain associations, there’s the Paleo Physicians Network, there’s primal docks, there’s the Institute of Functional Medicine, that will have directories.

That gives you a start and then when you find someone that you think may be good, I would look into them a little bit, look into their website, see if they've been interviewed, see if they've done any recordings or what have you. See what they've got to say and see if it resonates and do a little research and then that kind of two tiered process I think.

You have a decent probability of finding someone who can help you.

[0:28:37.6] AVH: Right, that's very helpful and we'll put those links in the show notes too so people can take a look and also link maybe to your podcast where you talk about this a bit more, right?

[0:28:45.8] MR: Yeah, that would be great.

[0:28:47.2] AVH: Cool. You touched a little bit on this earlier, the idea of supplements and stuff. I wanted to ask you about probiotic pills because that seems like a pretty big market these days and something that I always thought was kind of relatively safe and effective and maybe more specifically for like acute issues. Like if I go on vacation for a week and I just ate a bunch of crap and so I kind of just don't feel good, like "Take some probiotics for a couple of weeks."

Is that a good thing, is that necessary, are they bad? Is it better to just try to heal yourself through whole foods, talk about that a bit for me.

[0:29:23.9] MR: I think probiotics actually have some pretty impressive research with the litany of conditions that they can help with. Probiotics have been shown to be helpful for a number of things. They've been shown to be helpful for IBS, of course, your classical digestive type symptoms, diarrhea, constipation, abdominal pain, reflux, they've been shown to be helpful for anxiety and depression.

By the way, I should have mentioned, this is actually a very important clarifying point. That the things that I'm citing are clinical trial level evidence or above, which is exquisitely important. Because where a lot of debate comes from in healthcare and medicine is when people don't look at the highest level of the data but rather, they have a preconceived opinion and they look

for data that supports their opinion. There's two drastically different ways to approach information.

One, you can use clinical – you can use medical research to update the way that you think and update your opinion, which is the way it should be used. Or you can have an opinion and look for studies that reinforce what you already think, which is what you should not do.

You'd be surprised how often people bring their biases into a topic and then it kind of becomes this, what looks like science, the scientific reference war. Where you know, one study versus another study and much of what I do is just take a step back and look at the entire body of evidence and then look for what the entire body of evidence suggests. Because I've learned to really not be pragmatic and to try to be objective.

The evidence that I'm citing for the most part here, are all either clinical level data or higher. Really, the highest level of scientific evidence clinically is what's known as a systematic review or a systematic review with a meta-analysis. So this is like the summary of all the clinical trials is what would comprise something like a met analysis.

Without getting too nerdy into the details, it's an important point. There have been you know, very impressive clinical trials that have documented benefit for digestive symptoms, for anxiety, depression, there's been some studies showing improvement of elevated liver enzymes. Some to have shown the ability to help with fatigue in young children, if administered early, it may help with the prevention of certain inflammatory or immune mediated conditions, certain skin conditions have shown benefits. Rheumatic conditions like joint pain.

Yeah, there's definitely a lot of research showing benefit with probiotics, the question then is, what to use and how to use it. This is where things get a little murky because you can be inundated by probiotic 1,000 or if it will blaster 100, there's all these different names. You know, "What should I use? What should I not use?" Really, as a general rule, this isn't perfect but this will get you 80 to 90% of the way there.

You can break probiotics down into about four categories and what you may want to do is just try a probiotic from each category or try a combination of and see what categories of probiotics either help you or don't help you or maybe even cause a reaction.

The most common negative reaction to probiotics, albeit not occurring that often, would be bloating. But the four classes of probiotics are one, a mixture of lactobacillus and bifocal bacterium species. You look in the label and you're going to see mostly lactobacillus and mostly bifocal bacterium, in terms of all the different strains or species that are listed. That's class one.

Class two would be a saccharomyces boulardii probiotic. This is a probiotic that you'll see saccharomyces boulardii on the label alone or maybe saccharomyces boulardii with saccharomyces ceviche and that's the healthy type of fungus. Thirdly, we have a class known as soil based organisms or spore formant organisms and this is pretty popular in the paleo sphere. I definitely think this kind of probiotic can be helpful, I think the benefits have been a little bit overinflated by some of the paleo community.

Probably because the philosophy of them is so appealing in relevance, or in comparison to the paleo philosophy. Definitely helpful and definitely worth trying and you'll see mostly bacillus type species in there. It would be bacillus this, bacillus that. Sometimes it's abbreviated as B. It will be B and then a name after that, like B period. Just like lactobacillus sometimes is abbreviated as an L. It might be, let's say it's lactobacillus acidophilus, it will be L.acidophilus or bacillus KCI would be B.KCI.

That's how you can identify a soil base or spore forming probiotic. Then, the fourth class is known as E.coli missile 1917, a trade names under a brand called Mutoflor and that you can't buy in the US, it's not distributed in the US. But you can go on the internet and buy it from Canada or from somewhere else and that's a fourth class of probiotic.

[0:34:39.9] AVH: Why can't you get it in the US?

[0:34:41.6] MR: I think what happened was, back with the E.coli 01057 or whatever the destination was, the E.coli spin outbreak food poisoning scare, I think regulatory bodies got kind of spooked in the US and just took it off the market completely.

The clinical research shows very impressive benefit and what's sad is you see in some of these studies, they show that E.coli Missle is one of the most effective probiotics most namely for inflammatory bowel disease specifically ulcer colitis. There's minimal adverse events report. It's very safe and it's been shown to be effective in a number of clinical trials. I just think it's one of these things where we threw the baby out with the bath water because a completely different strain of E.coli is what's used in this probiotic.

And it's important to mention that one of the most common types of healthy intestinal bacteria are actually E.coli type bacteria. So there's different types of E.coli some are pathogenic, these of course are not in any E.coli based probiotic. Some forms of E.coli are very healthy for you and occur in your intestines right now and that's more so kind of what you are going to get in an E.coli Missle.

[0:35:50.9] AVH: So E.coli just got a bad rep because of the whole spinach thing?

[0:35:54.9] MR: I believe so and I think that's what happened, yeah.

[0:35:57.0] AVH: And is the class one category the most common? The kind that most people find the most useful or not – they all have their uses?

[0:36:08.3] MR: Class one and class two in this lactobacillus bacterium and the sacrifices ballarite, they probably have the most research behind them. So we know the most about them where they're most sure of their benefit and where they're most sure of their tolerability. The spore forming have a little bit less research behind them, you have to be a little more careful with their use because in persons who are highly immunal compromised they may be a bit problematic.

But it is going to be rare that someone is going to be highly immune compromised and then the E.coli has more research than the spore forming forms. But I just put that as fourth because it is harder to get and so people will have the most ease of access they type one and two. One and two are the most well studied. Third is probably the E.coli in terms of how well it is studied but

it's harder to access and then fourth is the soil based which you can buy anywhere in the US but it is not quite as well-studied as the others.

[0:37:03.6] AVH: And if you're taking probiotic supplements to help with general digestive distress or gut health, do you take them on an ongoing basis and switch them up now and then? Do you take them until you feel like you're back to your old self and performing well in your regular and then you stop taking them, how does that work?

[0:37:24.0] MR: Yeah, that's a good question and I don't think we have a definitive answer on that but I'll tell you what I think, I think the best way to use probiotics is to find ones that you notice help you to feel better. You can start with a little bit higher of a dose for maybe a few weeks and then once you've realized your maximum improvement from being on a probiotic for a few weeks to a month or so, then try to widdle your dose down to the minimal dose.

Where you notice you maintain the said level of improvement and then take that minimum dose every day in perpetuity. Now I say that for a few reasons. One, because probiotics do not colonize you. Most probiotics do not colonize you. It's a miss conception that you can recede or what have you. Probiotics have benefits but it's more so a trans union benefit. So taking them in the longer term I think is a better idea. Also because we know that the immune system of which there is a massive immune system in your gut tends to like consistency.

So I am not a huge proponent of changing them up because I think we want to allow your immune system to have this kind of constant stimulus. So I'd rather have a lower dose more consistently than an oscillating consistency at a higher dose. So that would be my recommendation, it would be to find a probiotic that works for you and once things in your gut are feeling healthier then try to widdle yourself down to the minimum dose where you notice effect.

This can be very simple. Some people notice that their bowels are more regular and more well formed when they use a probiotic. So then just try to widdle yourself down to the minimum dose where you notice you maintain that improvement and make up the dose that you use indefinitely. That's my speculation. We don't have any real clinical research at least, from where I have seen, I think as a clear answer to that question.

Most of the studies where they use probiotics, they are using a shorter duration for maybe months or in some cases an inflammatory bowel disease are used for maybe a year or two and shown to be beneficial while they've been taken. So I maybe should use that as a proxy for this comment where there actually have been long term, if you consider a year a fairly longer term, one or two year follow up studies using some of these probiotics in preventing a relapse of inflammatory bowel disease.

Because inflammatory bowel disease tends to go into remission and then you relapse and then you go into remission, you're feeling good and then your relapse and the disease flares and they have shown that the incidence of having these negative relapses is greatly diminished when people are taking probiotics over the course of a year or two. So I think we can make a case at least based on the small amount of data with these things in a longer term for probiotic administration that is more kind of chronic.

[0:40:14.5] AVH: Okay that makes sense. So we talked about probiotics, what about prebiotics? Because those are the things that the bacteria feed on is that something that we should be incorporating into our daily diet?

[0:40:28.3] MR: So this depends a little more. So we don't have quite the level of studies on prebiotics than we do on probiotics, so some of these may change. But I also think it's important for the health care consumer to realize that right now, the health benefits of prebiotics in a lot of circles are becoming grossly exaggerated. Now why does that matter? Well here's really why that matters: some people can actually be made worse by prebiotics.

Some people can be helped and there's clearly literature showing that prebiotics can help for a variety of conditions but there's certain people who are at higher risk for negative reactions to prebiotics. The general rule of thumb that you can paint here is the more digestive symptoms that you have the higher the likelihood that you are going to negatively react to prebiotics. So if someone has IBS or IBS like symptoms that are pretty severe, somewhat debilitating.

Or if someone has inflammatory bowel disease that is pretty severe, then there's a higher probability that prebiotics will harm them rather than help them. Now what you see sometimes is

people who are generally pretty healthy like younger exercise enthusiasts who don't really have much wrong with their GI's or gastrointestinal tracks except for maybe occasionally they don't have very full stools or maybe their stools get a little loose sometimes.

So they start using some fiber supplements and some prebiotic supplements and it helps them and then they can shout from the rooftops and we see this pressure for everyone to try this but the real travesty that happens there is, the people that read this who have things like progressed IBS or progressed IBD or just a lot of gut symptoms in general then try that and they actually end up hurting themselves. So as a general rule not a 100% but as a generalization to try to help people navigate this.

The more digestive symptoms that you have, the more cautious you should be with supplementing prebiotics and fiber and then the healthier you are, the less you have to worry about that and you may see some benefit from using these.

[0:42:50.2] AVH: Interesting, okay I didn't know that and can you explain this to me in layman's terms but is it because if you are very symptomatic or if you have major issues, you're almost sort of feeding this over activity already with the prebiotics? Is that generally what the issue is?

[0:43:10.6] MR: Generally, yeah and maybe to say it simply. There's two things generally speaking that may be occurring that explains why people don't respond well to prebiotics if they have lots of digestive symptoms. One they may have pre-existing bacterial over growths like SIBO, Small Intestinal Bacteria Overgrowth and then the prebiotics can feed that. The other is that people in these conditions, their immune systems may not get along great with their healthy intestinal bacteria.

And so if you feed even the healthy intestinal bacteria and then that population grows but the immune system of your body doesn't tend to get along well with those bacteria, it can start to cause some trouble and some tension in the gut. I think that's the two broad strokes of why this occurs.

[0:44:02.1] AVH: Okay that makes sense. So bring us back a little bit to paleo because of course that's where we like to live over here at Paleo Magazine Radio. How does the paleo diet,

the ancestral health diet lifestyle, how does that tie into having a healthy gut? Is it really just boils down to trying to eat unprocessed whole foods, have as little stress as possible, is that generally the best kind of diet plan of attack when you're having digestive issues, is a paleo style diet?

[0:44:38.0] MR: Paleo is a great place to start and there's maybe two important proponents regarding diet for people to consider initially. One is the allergen content of foods and the other is the fermentability of foods. The paleo diet does a great job with reducing allergens, right? I'm sure you guys talk about this all the time. Gluten, dairy, soy, all these things that can be allergenic – the paleo diet does a great job of pulling those out of the diet.

Maybe you go a step further and you go to the autoimmune paleo diet and now you take out food that other people may react to like eggs or nuts and seeds. So paleo does a great job of pulling out food allergens and of course, just as a quick aside processed foods and all of those things. So yes, we all want to avoid added sugar, artificial sweeteners, processed foods I think we all get that. But going a level deeper into it, the paleo diet does a great job because it pulls out a lot of common allergens.

But there is another component of paleo that's often left out that's important for people that are trying to optimize their gut health and that is the fermentability of the diet. This means how powerfully your diet feeds your gut bacteria. Certain foods are better at feeding gut bacteria than others and what happens in some cases, people go on a paleo diet and they don't feel any better or maybe you'd feel a little bit worse because they end up eating more foods that feed bacteria in the gut.

And if these people already have these underlying imbalances in the gut, you're feeding an unbalanced and there for you feel worse. This is where the low FOD map diet comes in, and there's a paleo version of the low FOD map diet, but essentially the low FOD map restricts foods that are powerful at feeding bacteria. What's ironic is some of these foods are seemingly healthy. Asparagus, cabbage, cauliflower, all very high in FOD maps.

For some people of course it can be very healthy but if you already have a bacterial overgrowth or one of these imbalances, these foods are powerful in feeding those imbalances and therefore

can make you feel worse. So you can start with paleo diet and for a lot of people that's going to be extremely helpful but if you're struggling with that, a dietary deprivation, you can try a paleo low FOD map diet.

[0:47:03.6] AVH: Got it, okay. So a little change of subject here. I have some friends who are doctors. I have heard that doctors ironically can be some of the least healthy people out there but I guess it makes sense when you think of people who have very crazy schedules and deal with a lot of stress. I feel like it's similar to I have friends who are gym owners and they say they spend less time working out than ever because their gym is their job now.

So for you, what's a day in your life like personally, what are you eating? What's the exercise like? How do you keep a healthy balance to make sure that you are being healthy, as you are helping all these other people get healthier?

[0:47:42.8] MR: Well I definitely think I have bridged into that, make myself unhealthy because I work so much at times. So I've definitely been guilty but I should say on my own defense yeah, I work pretty long hours and pretty hard. But the goal is to work my way into not having to work that much. But sometimes, you have to build the ship before you can come to sail it, that kind of thing. So I typically tend to eat pretty paleo, kind of lower carb paleo, is what I eat day to day.

So for breakfast today, I had three eggs and some broccoli. I just sautéed that with a little bit of garlic salt and pepper and that was my breakfast. Then a few hours later, I had a bit of jerky and half an avocado and then about 30 minutes ago I had a kombucha and then tonight I'll probably have maybe chicken and asparagus. So typically it's some kind of protein along with the vegetable.

[0:48:39.4] AVH: Delicious that sounds good.

[0:48:41.4] MR: Yeah, it's pretty good on a regular diet. I have tinkered with my carb intake and I can do okay on some more carbs but I just think I am a little bit leaner and feel a little bit better on a lower carb diet but I will tend to get my carbs in at the end of the day. So if I didn't have anything that's carb rich I do it at the end of the day. Then in terms of keeping myself balanced out, I am lifting weights probably three to four days a week and I play soccer two days a week.

I love hanging out with friends and grabbing a glass of wine or a beer and just telling stories, having fun, goofing off. I play some instruments so that's always fun.

[0:49:21.8] AVH: What instruments do you play? Inquiring minds.

[0:49:24.7] MR: Guitar and I am learning piano.

[0:49:27.4] AVH: Cool. So I guess it's just about it's finding and carving out that time right? Because you will be as busy as you allow yourself to be but everyone can find enough time and not sacrificing the health for your other goals. You need to have a balance between the two.

[0:49:49.0] MR: And I do think that there does come a point where if you are working too much, your performance goes down and I have repeatedly burned myself out by going too far over that line. Where I have more to do than I have time to do it and so instead of eating, I will have caffeine and instead of going to the gym I'll work. You'll get a little more done for a couple of days, a couple of weeks if you do that but then eventually you're just zapping your vitality.

And then your overall level of performance starts to go down. So I do think that for just tuning into your own bodies, we realize that there is a certain line where you have to make sure making enough deposits into our health account than we are withdrawals so we maintain a positive balance. So that our performance – even for someone who is motivated by a performance and achievement, you have to take that self-time because you need to invest enough in yourself to have the performance to be able to perform the work at the level that you are trying to.

[0:50:45.5] AVH: Absolutely, you mentioned caffeine. That brings up a question, how does caffeine factor into gut health in general? Because I know lots of people and I actually a little bit this way. I don't metabolize caffeine super well so I can have a coffee a day and that is more than enough but it can cause some digestive issues and I know a lot of people are like that. What's generally the rule of thumb with caffeine in general?

[0:51:11.1] MR: Well when you look at the research literature and I just recently wrote a book on gut health and we went through a really comprehensive review of the research literature on a number of different topics. You see that caffeine tends to generally have no major benefit or detriment to health. Except there has been some benefit shown for certain neurological and metabolic conditions, things like cognitive impairment, Parkinson's and for metabolism in general.

So some slight benefit for neurological and metabolic conditions and also some slight detriment for digestive conditions, which reflects what you just said. So there are definitely some people that notice they can do one cup a day but if they have two cups they get bloated or they get diarrhea or they don't feel well. It's a little bit of a personalization process where I would say if you haven't yet, try cutting coffee out for at least two weeks because it may take you a few days to get through the withdrawal.

So you got to throw those first few days of adjusting out and see if you notice if you feel better when you don't have coffee or more simply if you notice some days where you have more coffee and you see to start your digestion regress. That probably means you should be pretty judicious with your coffee use. Not to say that you can't use it ever but you may not want to make it your morning thing. You may want to reserve it to a couple days a week max when you really want it.

So yeah, it can definitely be a problem for some people. A little bit of reflection and experimentation and people should be able to sort that out.

[0:52:40.8] AVH: Okay and we didn't really talk too much about fermented foods but that obviously should be a part of your diet, right? Like fermented foods are helpful in most cases?

[0:52:52.7] MR: Yeah, for most people they do well with fermented foods and that's a good thing to try and incorporate some type of fermented food in your diet. It could be a fermented yogurt or dairy if you tolerate things like kefir, if you tolerate dairy. It could be kombucha, it could be tea drinks, it could be sauerkraut or kimchi. For most people those are going to be helpful. There's a small number of people that are sensitive to what's known as histamine.

And these are people who may notice they have too much fermented food, they feel irritable or they feel flush or they feel brain fog. So that's definitely a smaller number of people but if you notice as you're really whooping on the fermented foods into your diet, you're starting to feel worse you may want to just look into a low histamine diet and give that a try.

[0:53:37.7] AVH: Got it, okay. It seems like the occurring theme here is try to sort out all the lifestyle factors as best as you can but just pay attention to what your body is telling you. Try things, pay attention and go from there right?

[0:53:51.4] MR: You know that if there's one thing that I could help people understand and I'd feel good about it, it will be just getting people to learn to listen to their own bodies. The one thing that I think is the major negative about all the availability of information on the internet, is there's so much information that people have so many other things that they can listen to rather than themselves.

[0:54:17.2] AVH: Right, yeah.

[0:54:19.5] MR: But if you can learn to just listen to your own body, you will find your own truth. Should you be high carb, should you be low carb? Do you need lots of exercise? Do you need not as much exercise? Do you do well with lots of starches in your diet or does starches bloat you? Because you can go on the internet and read about how there's certain compounds in starch that feed healthy gut bacteria and so you keep trying it and trying it.

But you keep feeling worse and worse, you are not listening to your body. You are listening to the article that you read. So definitely take in information and do your research and learn but always use your own experience as it evolves in a barometer of if you are going to keep with something or not.

[0:54:57.3] AVH: Find your own truth. I think as we are coming to a close here, I think that's a great way to end things off. But just last before we go, is there anything coming up with you that you want us to know about? I know you said at the beginning something about some research that you were working on that is going to be published soon?

[0:55:14.9] MR: We did a study in the tribune of small intestinal bacterial overgrowth. So we are trying to determine if we added anti bio film agents to the treatment, if that would make the treatment more effective. Essentially bacteria can form these protective coatings over them. They can make them impervious to treatment and we test it if certain anti bio form agents would improve the treatment rate and we were able to show that it does actually improve the treatment rate of SIBO, Small Intestinal Bacterial Overgrowth.

So we're drawing that up for publication now. We have another randomized control trial. We are hoping to start soon. We hit a few snafus with some of the set up there but that should be starting soon. It's also in SIBO treatment and of course, I have a book coming out hopefully late 2017 if not then early 2018. If people wanted to learn more about that and be notified when the book is coming out that he go to my website drruscio.com/gutbook and they can plug in to be notified about the book when it's available there.

[0:56:18.8] AVH: Awesome, what's the book called? Is it called – it's not called gut book?

[0:56:23.7] MR: Something gut something – we haven't really narrowed down the name of it. It's actually the hardest part when you spend a couple of years writing a book and then you say, "Well what are six words that summarizes...?"

[0:56:37.2] AVH: First impressions right? It's like you say don't judge a book by its cover but we all do it.

[0:56:42.8] MR: That's been the hardest part of the book I think is that trying to come up with a title.

[0:56:46.4] AVH: Awesome, well that's exciting. We'll watch out for that, you said end of 2017, possibly early 2018.

[0:56:52.2] MR: Yes.

[0:56:53.1] AVH: Okay, great. Well Dr. Ruscio, thank you so much for taking the time today. I feel like you have given us more than enough information to work with and it's been very helpful. So Thank you. I look forward to learning more and following along on your website.

[0:57:07.8] MR: Pleasure chatting with you, thank you also.

[0:57:09.9] AVH: Alright, take care.

[END OF INTERVIEW]

[0:57:10.9] AVH: Alright everybody, thanks for listening, I hope that was helpful for you and before we go, another shout out to our show sponsor, Clean Made Market and Clean Food Fest. If you want to learn more about this awesome two day health and wellness event that's happening in LA in October.

Check out cleanfoodfest.com and if you're going, we'd love to hear what you think about the event and stop by and see us in the Paleo Magazine lounge. Next week, I get to chat with a former professional athlete and a model, actor turned skin care guru and ask him all the questions that you might want to ask but would be embarrassed to ask if you saw him on the street.

Like, "Andy, why is your skin so nice? How exactly do you keep that six pack year round?" In all seriousness though, we do learn a lot about Andy Nalo's amazing skin care company, it's called Alatora Naturals and he walks us through some of these products and ingredients he uses which are pretty spectacular and we talk about why the consideration for what goes on your body really can be as important as what goes into it. You don't want to miss that one, he's always fun to talk to. So subscribe to the podcast on iTunes or Stitcher to get this and all the other great episodes that we are giving you for free.

And, if you haven't yet done your good deed for the day, maybe you can leave us a nice rating and review on iTunes that you can help introduce us to more listeners, it really would mean a lot to us and by leaving a review, you can enter to win a free paleo cookbook.

It's a win/win guys. Do your good deed, make us happy and I'll see you here again next week.
Thanks guys.

[OUTRO]

[0:58:32.8] AV: Paleo Magazine Radio is brought to you by the Paleo Media Group and is produced by We Edit Podcasts. Our show music features the song *Light It Up*, by Morgan Heritage and Jo Mersa Marley, and on behalf of everyone at Paleo Magazine, thank you for listening.

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