Manage Low Gastric Juices With H. Pylori And Stomach Acid Transcript

(Transcripts are generated by AI and may contain errors)

Introduction and guest background

Welcome back. We are continuing our conversation on Reversing Chronic Gut Conditions. I am here. I'm joined todayby my wonderful colleague, Dr. David Jockers, who is a doctor of naturopathic medicine and runs one of the most popular natural health websites on the planet.

drjockers.com. This gets over a million monthly visitors and his work has been seen on such popular media as Dr. Oz Show and Hallmark Homeland Family.

But what Dr. Jockers might be best known for as his bestselling book, “The Keto Metabolic Breakthrough” and “The Fasting Transformation.” So he is a world renowned expert in ketosis fasting, brain health information, functional on nutrition.

And this is why we wanted to make sure that we got him on this event for you guys so that you could really appreciate and soak up some of his clinical gems and his insights from being in the field as an expert in these areas.

So welcome, Dr. Jockers. It'sso great to have you on. Thanks so much, Sinclair. Great to be on with you. Yeah. So we wanted to do a deep dove together today on the digestive juices.

Right. Stomach acid, enzyme production, bile flow. What do these things have to do with chronic gut conditions? How are they supposed to work? You know, let's start out by unpacking this.

Really important topic. So we started it. Our digestion, obviously in our mouth with our saliva, we have salivary amylase there.

How stomach acid supports digestion

And the saliva itself starts to break down the food and we start our digestion. Digestion process. Obviously, we're chewing it as well. We want to chew it really, really well and get that once food gets in our body, we call it a bolus, right?

So it's predigested. It's kind of in the digestive process. We use this term bolus. So as we start eating our food, we create this bolus. It's covered in saliva.

We want to chew it down as much as we can get it into our stomach and then our stomach, you know, normally at rest. So I haven't eaten in a few hours.

So at rest my food is normally going to be around 3 to 3.5. Now water, if you remember, in a chemistry class, water is neutral roughly around seven. So it's actually a big difference between 3 to 3.5 that range and seven.

It's a big difference. But in order to digest most food, particularly like large proteins, like a steak or something like that, we need to get that stomach acid down around 1.5 to 2.2.

So the jump from, let's say 3 to 2 doesn't seem like a lot, but it's actually very energy demanding. We actually have to create. We have to have a lot of energy going into our digestive system, into our stomach to produce the acid and secrete it to actually get the acid down that low.

And so this is why we need to be at rest when we're in our parasympathetic nervous system. So we're rested, we're relaxed, then we're going to be able to produce that.

And we have obviously we need to make sure that our body is functioning well right in general. But we also need that parasympathetic state most people are eating on the go, right?

So you think about fast food, just the term fast food. I mean, that alone is counterintuitive to what we need as far as digestion. So if we're eating on the go, we're eating all we're driving, eating while we're chasing kids around, yelling at kids.

I mean, I've got four young kids, so I know how it is, you know, eating while we're working, eating while we're in a stressful state. We're not going to be all pretty sit digestive juices we need.

So stomach acid kind of is where it starts. And the reason my stomach acid is so important is because it sterilizes the food. So as we're eating food, the saliva and the teeth don't break down the microbes out.

And so microbes are now getting into our stomach, a vast majority of them, as long as we get the stomach acid low enough. Right. We talked about 2.0 that's going to help eliminate a vast majority of those microbes.

And on top of that, it's going to it's going to allow us to start to break down, metabolize protein. So we have natural protein enzymes that are released in our stomach when the acid is low enough and we start to break down the protein effectively.

We also have something called intrinsic factor, which helps us to absorb vitamin B12. The acid itself helps key minerals like iron, zinc, magnesium, calcium.

You know, some of the biggest deficiencies we see in our society. That's where we do a vast majority of the absorption of some of those nutrients is getting the stomach acid right.

Allows us to absorb those nutrients effectively and then it allows food to move through from the stomach and into the small intestine. We have a sphincter, a little muscle that basically when it's close, it doesn't allow food to move through and it opens up as the food is digested well and the acid is low, it will start to loosen up and open and the food, the bolus will now move into the small intestine.

When we don't produce enough acid, one of the things that happens is it just sits in the stomach and it starts to rot basically, and it starts to create gas.

And that gas will now open up the sphincter between the esophagus and the stomach. We call that the esophageal sphincter. And now acid will jump up into the esophagus and cause a burning because we have this thick mucus in the stomach that protects it from the acid.

But we don't have that in the esophagus. So we shouldn't have stomach acid jumping up into the esophagus. And when it does, we start to notice a sensation for some people.

They notice it really badly, right? Like we call it heartburn or acid reflux. They notice it and it's painful. In fact, a lot of people mistake the feeling of heartburn for a heart attack.

Right. In fact, a lot of people go to the hospital, right. They think they're having a heart attack and they actually are just having heartburn. Right.

So it's it's actually a good call in that that perspective better to have heartburn than a heart attack. But the reality is it can be really uncomfortable for other people.

It's really interesting for other people. They don't even notice it or they notice very mild symptoms. We call that silent reflux. Silent reflux. You might just clear your throat a lot.

You eat a meal and you have to clear your throat. Often that could be silent reflux and typically is a lot of times this is an indication you might have a food sensitivity.

So if you eat something, I know for me, I remember I used to eat peanut butter a lot and I would eat peanut butter and I loved it. And all of a sudden I would have to clear my throat all the time.

I couldn't have a conversation like this without clearing my throat four or five or six times. That was a sign I was having silent reflux from consuming that I had to stay off the peanut butter for, you know, roughly 90 days, allow my body to heal, to desensitize.

And then I was able to introduce it back in and, you know, in small quantities. And I didn't have that symptom any more. So if you're noticing that that could be an issue, some people lose they tend to lose their voice.

Low stomach acid symptoms and causes

If you notice that often, like, seems like you're getting laryngitis often or you just don't have the maybe you're a singer. I've seen this with people that are musicians where it's like it seems like every week they're losing their voice or they just struggle with it.

They've got to drink all the, you know, different, slippery teas to get their throat ready. They may have silent reflux that they just have not addressed.

And that obviously is throwing off, you know, what's happening with their vocal cords. So a lot of different symptoms associated with that. But really, it has to do with typically an under production of stomach acid.

And a couple thing couple of reasons for and under production and stomach acid, one could be stress like we talked about just chronic stress, food sensitivities, another one and then probably the two most common ones in our society are overuse of certain medications like NSAIDs that will actually block stomach acid production can actually cause an ulcer and then also an infection called H.

Pylori, really common stomach infection. And H. Pylori actually shuts down our ability to produce enough stomach acid. And I know it seems counterintuitive.

People think, well, acid reflux got to be too much acid. But again, going back to that mechanism, it's actually too little acid. Typically, most of the time it's not enough acid because the food sits in, the stomach creates gas, and the gas pushes up against the esophageal sphincter opens that and now acid that.

Again, it's not low enough, it's not where we need it, but it's still very acidic, too acidic for the esophageal tissue jumps up into the esophagus, creates the the burning sensation or the heartburn or the silent reflux effects.

So that's kind of where we start with stomach acid. I can go into the other digestive juices, bile pancreatic enzymes. But want to give you a moment if you had any any comments there?

Yeah, I think that was a fantastic overview of what's going on in the stomach and why we might be having some of these issues and also the different presentations of the super clear overview.

So thank you for taking the time to do that too many times we just like skip right over this and if people don't think they have, you know, that they recognize that classic heartbreak, oh, is that my problem?

So that's awesome. So let's talk about before we step into the the next section of the digestive tract, what can people do if they see these issues and if they recognize themselves in one of those presentations?

Should they be looking at root causes? Should they be looking at digestive aids? What, in your view, is the next step? Yeah, for sure. So I would you know, first off, I would look at your diet and see what's going on with your diet.

So typically if you're eating, for example, a diet high in processed food, that can really trigger inflammation and obviously reduce your ability to produce stomach acid.

So I would try to do that. You know, I always say first thing is reduce sugar and grains. So processed sugars as well as grains. So, you know, all of your, you know, wheat, rice, you know, all the all the different things that we would consider.

Grains try to go with fruits, vegetables, grass fed, organic needs as much as possible, healthy fats. That's going to be things like avocados, extra virgin olive oil, coconut oil, grass fed butter, things like that.

So in general, reducing sugar in grains, getting rid of all the processed vegetable oils, corn oil, soybean safflower, canola oil, all the processed oils that that those things are very toxic and inflammatory.

And so we want to get rid of those and then try try to do your best to get grass fed meat, wild caught salmon, wild caught fish and go as organic as possible.

Because we know that food that is not organic and particularly like when it comes to produce, you can look at, you know, the Environmental Working Group, they've got a dirty dozen clean 15 typically the recommendation with that is if you're going to eat the outer layer, like, for example, a blueberry, you're not going to peel it, right?

You're going to take a peel off of it, you're gonna eat it. And so if you're gonna eat the outer layer, you should try to get that organic. If you're going to peel the outer layer, something like a banana or an avocado or an onion, not as important to get it organic.

So if you want to knock it organic, go with the things you're peeling, the outer layer, things that you're eating, the outer layer. That's where you want to go organic as much as possible with your meat.

You want to go grass-fed organic pasture raised. So once you make the diet changes, really try to also dial in your sleep, keep your stress under control, try to make sure when you're consuming your meals that you're in a relaxed state, that you're taking a couple of deep breaths, you know, pray before you eat.

Like that's what we do in my household. Not only is a great way to honor God, but it also puts you in that parasympathetic mode. You know, be in a state of gratitude, thankfulness that puts you in that parasympathetic mode when you're in your parasympathetic as opposed to fight or flight, your body now is able to divert the energy and produce digestive juices, the stomach, acid, bile and pancreatic enzymes that you need to digest your meal effectively.

So that general hygiene, nutrition and lifestyle hygiene really should be the foundation. And for probably 50% of the people that may be listening to this that have had issues that alone you'll see significant changes.

And then there's another 50% where we've got to go deeper, perhaps you're taking medications that are blocking stomach acid production. Maybe you're on acid blocker right now.

Maybe you're maybe you're taking pain medications, right. NSAIDs, right. Or steroids or something like that that's going to interfere with stomach acid production, all your digestive juice production.

And so we've got to look at that. We might have gut infections, right? That's what I know this summit is all about. So gut infections, whether it's parasites, h.

Pylori yeast, fungal overgrowth in the system can all end up causing a low stomach acid presentation. And so we've got to look at that as well. Do you mention each calorie a couple times and I would love to hear your thoughts on that and what appropriate next steps people should be taking if they do, in fact, know that they have tested positive for that before we dove into it like the enzymes in the bio because they know we'll get down there.

Yeah. Well yeah. Yeah.

Supporting stomach acid and addressing H. pylori

Well pylori is really common and infection and it's it's a bacteria that lives in all of our all of our systems. So it's in our stomach. But we should be able to keep it under control when it starts to grow out of control.

What it does in order to really thrive in your stomach is it reduces your ability to produce that stomach acid. And again, now that's going to cause a whole lot of different issues and H pylori is a really tough one to get rid of.

So, you know, right off the bat, it's a it's a harder one when it is overgrown. And it can also pass between, for example, your your spouse. So when you're kissing because H pylori can also coach cultivate in your your oral cavity as well your stomach.

I'm sorry, your mouth. And you can pass it when you're kissing, for example. Right. So children, your spouse and you could be passing it back and forth.

So, you know, it's it's a big factor from that perspective. And there are definitely some things that you can do. You know, like we have a protocol where we're using things like, for example, mastic gum tends to work really well.

D Glycerin needed a licorice root aloe slippery elm. Some of these mucilage dryness types of herbs they work. Not only are they antimicrobial, but they also work to help to build the mucus layer back up.

So when we have an H. Pylori infection, it's degrading the mucous lining in the stomach. This is why, over time, if it's not treated, it can actually cause a stomach ulcer where you have an actual wound or hemorrhage in the stomach. So so we're using some different herbs like that as well as a bunch of different antimicrobials.

So things like berberine, oregano, clove, different things like that all really work well. There's a certain type of probiotic I'm I can't remember exactly the name, but I know Microbiome Labs has a product where it's a specific type of probiotic that will actually add in and that tends to work well as well for kind of pushing out H.

Pylori. So I know that's in our protocol and I'm trying to think what else we're using with that. So different or different teas, ginger tea can be really helpful.

Manuka Honey, some people have seen really good results using Manuka Honey. So some different teas. Manuka honey like, like I talked about have been shown to be very effective and l glutamine actually has been shown to be helpful.

So a number of different things there can be helpful for getting rid of the h. Pylori. Couple of things that I've seen make it really hard or when people are eating late at night.

So when you're eating late at night, you want to make sure that the food that's in your stomach gets out of your stomach as quickly as possible. It sits there for an extended period of time.

Then that gives H. Pylori more time to feed on that on their food. So when people eat late at night, it's kind of, you know, if let's say you eat at 9:00 and you go to bed at ten, 1030 food, hasn't that time go through your stomach and into the small intestine.

So it's sitting there now. Gravity normally will help it, right? If you're laying on your back now, you don't have that gravitational force. And so therefore, you know, it's going to sit in your stomach longer.

So it's one of the worst things you can do. You can be doing all the herbs and things like that, but if you're eating late at night and you're laying down and you're not allowing the gravity to kind of push it down, that's, you know, it's going to continue to propagate. So that's a big issue of worry like sugar.

So, you know, if you're eating a higher processed food or a higher sugar diet, it's going to, you know, tend to thrive in that environment. So you want to tend to go lower, you know, lower carb.

You don't need to go super low carb, still eat fruit and root vegetables if you like, but lower carbohydrate in general

and try to eat foods that are going to move through your stomach.

Well, so if you're overeating, obviously, that would be an issue. Or again, if you're eating late at night, you know, sitting there, things like cheese, which might take a little bit longer, like if you eat a big thing of cheese, right.

You know, sometimes you get cheese cravings, right? And so if you if you're eating a big thing, a cheese cheese tends to move through your system a lot slower now.

All right. So that that would be something that might sit there longer and cause problems, ice cream, you know, things like that. So in general, you know, if you're.

Weight, all the things that make life worth living. Okay. Yeah, right. Right, exactly. So even like, like chocolate cause it's so dense and fat, things that are really, really dense and fat might sit longer in your system.

And I'm an advocate of, like, a lower carb, higher fat diet, but you need to make sure you've got things, for example, that you're hydrating. Well, I think fruit really helps in this regard.

Right. Fruit will move through the system quick and it will actually move other food through your system quicker. And and so that can be a great complement, right.

To some of the other foods in your in your diet to help move them through the system faster. Awesome. That's super helpful. Okay, so let's move. So one other thing I didn't mention apple cider vinegar, a little apple cider vinegar in water before meals or lemon or lime in water before meals that can really help as well.

That helps prime your whole digestive system. So that's really, really helpful. Chewing on some ginger root and chewing on some ginger root as well will help to activate stomach acid production, start to get all the digestive juices flowing.

So that's another good strategy. So I think that's so much more of like a much more in-depth answer than you normally get when you ask two sets of questions like, okay, add in a camp of H style at a time.

So I really appreciate giving folks a range of things to do. And you know, with H. Pylori, it's interesting because typically when somebody has low stomach acid, you want to add in something like betaine, HCA can be really helpful.

But what I found is that when they have a H. Pylori overgrowth oftentimes it aggravates the symptoms. They actually get worsening symptoms because it because the H pylori creates it produces certain gases that help neutralize the stomach acid and will create more gas production and more burping, belching.

Right. More of those types of reactions. So oftentimes we need to knock the calorie down first and then start adding in something like a B teenage seal, which is a stomach acid supplement that will actually get the stomach acid where it needs to be.

Small intestine enzymes and bile flow

And so so with H. Pylori, it's a little different than your kind of your stomach at low stomach acid that would be created by, let's say, aging and nutrient deficiencies, stress.

Right? Those cases typically just adding in beta and HDL works great. Right? Yeah, that's a great point. And I think you're referring to like when you're talking about the the microbiome support for this the paleo guard right from the start.

Yeah, yeah, yeah. It's a probiotic, right. So it's instead of using herbs and things like that and you can use herbs with that, right. That's a probiotic approach that is, is getting really good results.

So okay, let's move down the digestive tract. What's with an eye towards like what happens after that stomach acid and those stomach acid issues? What comes next enzymes in there.

Yeah. Yeah. So then so once you move your your bolus right again, your predigested food out of the stomach, right into the small intestine and the proximal or the kind of the front part of the small intestine, there are certain receptors and when they're head they trigger the release of bile and also pancreatic enzymes and sodium bicarbonate.

C The bolus is very acidic coming out of the stomach, but in the small intestine we need an alkaline environment, so we need to radically shift the environment.

So our body versus biome, of course, we think about bile, we think about emulsifying fats, right? Almost like soap breaking down the fats into smaller components so we can actually digest and absorb them.

And that is really important component of bile. But another really important component is actually it's alkaline effect. It creates an environment in the small intestine that the small intestine can now absorb nutrients and also it's antimicrobial.

So I, I'm I mentioned how most of the microbes will be killed off when the stomach acid gets low enough. But there are some microbes that love acid, but they don't like the alkaline environment that the small intestine needs to create the bile.

And so that will help to again reduce the overall amount of microbes coming in because really it's all part of controlling our microbial load. All right.

We know that our microbiome is a key component to overall health. At any given time, we have as many microbial cells in our body as we have human cells, if not more. Right.

I've heard the phrase that when you wake up in the morning, you're more microbial. As long as you eat the day before, you're more microbial. You have more microbial cells and you have human cells.

And then after you have a really good bowel movement, you're more you have more human cells than microbial cells. And so it's really important that we do have these microbial cells.

However, we want to be able to control the microbial load and control where the location of them. And so the acid and the alkaline effect play a big role with that.

Also, to help create that alkalinity, our pancreas dumps out something called sodium bicarbonate, which is, you know, a very alkaline substance to, again, alkalis the environment.

And also with that come the pancreatic enzymes which further metabolize the bolus and allow for the digestion of carbohydrates, proteins, minerals, B vitamins, all different types of compounds as well as as fats.

It lipase that's in there helps break down the fat. So we kind of get this this whole orchestra that's playing, you know, and everything needs to play at the right tune at the right time.

So again, started out with the salivary amylase starting the digestive process. And really when we are chewing and we're kind of tasting the food, that sends a signal to the rest of our digestive system, okay, let's crank up the stomach acid, crank up the bile, crank up the digestive enzymes.

And that should be the message we're getting. This is why I'm not an advocate of chewing gum, right? So people will say, well, what kind of gum to you chew?

I'm like, I don't chew gum. And I don't recommend it because we're actually sending the wrong message. When you're chewing gum, you're getting a flavor in there and you're chewing just the act of chewing.

You're telling the body, create these digestive juices. But if you're not actually consuming calories, you don't need those digestive juices and you're going to wear that system out.

And so it's actually one of the worst things you can do for digestive health is use chewing gum. And so not only that, but most comes out there are loaded with toxins and chemicals and sugar, artificial sweeteners.

So not not a good strategy, but when you do it. Yeah, exactly. So really, we should be eating 2 to 3 times a day, ideally, unless we're an athlete, super active, something along those lines for most people, you know, a baby, they're going to be eating a lot or pregnant woman.

For most of us, you know, eating 2 to 3 times a day should be enough. As long as we're eating, you know, a good amount of protein, healthy fats, getting the calories we need in those meals.

So when we do start chewing and actually eating food, we're telling the body, okay, produces these digestive juices and actually giving it more time to produce as juices as we're chewing, prepares the whole system for the proper digestion.

And that's really the message. So we want to get that message right. So when we do our chewing food, you know, the body's producing those digestive juices and we get that orchestra flowing the way that the way that it needs to do.

So would be some signs that our body is struggling in this part of the digestive process. Well, you know, any any kind of digestive symptoms. So acid reflux, like we talked about, bloating, constipation, diarrhea, excessive gas, we're all going to have some level of gas, but excessive gas and really stinky gas, a sign that either protein is putrefying, we're fermenting carbohydrates, fats are going rancid in our system.

So all of those can be, you know, you know, they're very common in our society. And those are all symptoms. That digestive system is not functioning well, just chronic inflammation in general.

So we have chronic inflammation. If we have autoimmune conditions, all of those things can be linked back to poor digestive health, poor digestive juice production and disorder in the microbiome.

That's a great list. Exactly. Yeah. And do you think there's any primary factors that could be contributing to pancreatic distress that would really inhibit the production of these enzymes in the sodium bicarbonate?

Well, again, not producing enough stomach acid is a big factor. So that's you know, that's number one, also small intestinal bacterial overgrowth. And a lot of these things go together.

Sometimes people have pylori and small intestinal bacterial overgrowth or a small intestinal fungal overgrowth. A lot of times if they just have low stomach acid, let's say, from aging chronic stress from nutrient, zinc deficiency or something like that, that can set the tone for small intestinal bacterial overgrowth.

And and that small intestinal bacterial overgrowth also called SIBO, can, you know, the bacteria are releasing different compounds that will inhibit pancreatic enzyme production and secretion.

And so we get less of the enzymes because the enzymes are not really what the bacteria want. They want the food. They want to be able to eat the food.

They don't want it breaking down smaller and getting into the villa and getting in the bloodstream. So so in a sense, they're competing with that. So when we have an overgrowth of microbes in the small intestine, that's going to reduce the amount of pancreatic enzyme production. Hmm.

Interesting, isn't it? Okay, so now let's talk about the the role of bile. And I know you know that I'm a huge bile nerd. Yeah. So earned the title of The Liver Lady and talked to us about bile and how that plays a role and balances the stomach acid.

Signs of poor bile flow and liver stress

Well, like I talked about, I mean, it's it's not only does it emulsify fats, which is what most people think about it for, but on top of that, it's a very alkaline substance and it's antimicrobial.

So again, it helps to keep the microbial load down and under control in the small intestine. It's also a way that we get rid of waste. So part of bile is going to be waste products and particularly large waste products.

We call it phase three Liberty Tox ification. So phase one and two, we're deactivating these, you know, these different toxins. And then usually the very small weight particles we're releasing through respiration or urination.

Shen Or perspiration, larger molecules we want to get rid of through the feces. And so bile is kind of the carrier. Biles You know, combining with Mike with a bunch of dead microbes, fiber, you know, all different foodstuffs and going out through the stool.

So so bile is just a key carrier for getting these wastes out. So it has a multipurpose fall role, right? I mean, it's you know, our body is very thrifty from that perspective.

It wants to conserve energy and it wants everything to have, you know, at least, you know, some of these these key things to have a lot of different purposes.

And, you know, with bile, again, it's breaking down the fat, it's keeping the small intestinal environment healthy, and it's excreting toxins that have been deactivated by the liver and escorting them out of the system.

So super important. And the issue is that a lot of people have very sluggish, very thick bile because bile is basically Billy Rubin, which is a breakdown product of hemoglobin, which is in our red blood cells.

We're constantly breaking down hemoglobin as it gets denatured over time and then recycling it. And we're also excreting a good component of it in that belly with the bilirubin in the bile.

And then it combines with cholesterol, which is kind of waxy substance. And then you've got the bile salts which basically allow it to kind of move. Right.

And it should it should have a good ratio of cholesterol to salt. The proper ratio allows it to flow properly when it's got too much cholesterol, which happens often when people are insulin resistant, when they have high estrogen, estrogen dominance, hypothyroidism, we can end up with a higher ratio of cholesterol to salt and then it gets very slow and sluggish and doesn't move properly.

Also, if you have inflammation in your liver, in the bile ducts, in your liver or in your gallbladder, and that could that inflammation could be coming from bad diet, from chemical exposure, from infections.

That inflammation will damage the bile ducts and create almost like a scarring. Think about like with our arteries when our endothelial lining of our blood vessels becomes damaged by oxidative stress, we get scarring in the arteries, arteriosclerosis we call that.

And then high blood pressure will go up. It's kind of the same thing in the liver in those bile ducts, they become scarred. And now the pressure or the bile doesn't flow through there properly because there's a blockage.

So we're not getting the proper amount of bile flow. And a lot of people think the gallbladder is what produces the bile, but that's not true. Gallbladder is like an appendage of the liver.

It's stores bile. The liver is constantly making bile. So even if you had your gallbladder taken out, you still had you're still producing bile. But it's just kind of like a small drip branch.

It's kind of a continuous small drip, whereas when you have your gallbladder now, you're able to be much more

accurate with when to use it. And you've got the right amount when you consume a really good solid meal.

So you eat a good, solid meal. You're, you're getting the fats in there, the proteins. Now you need extra bile to be released and your gallbladder will secrete that if it's working properly.

But again, if those bile ducts are clogged up, if you've got stones because of the thickness, it's like we talked about estrogen dominance, hypothyroidism, insulin resistance is the most common reasons.

Infections obviously can be at the root of really all three of those conditions. Then, you know, it's not going to flow well. Right. And you can also develop further infections because the stones can get clogged up in the docs stopping flow.

And when you don't when you don't get the flow, that's kind of a breeding ground for infection, further scarring and damaging that that tissue and causing a lot of unwanted symptoms.

Ransomware, oftentimes people end up finally going in, get their gallbladder taken out because they've never dressed this. And it's gotten to the point where, you know, in some cases it's life threatening.

Not always. In fact, most of the time not. But in some cases it could be. Yeah, that's a really great summary of what's going on this matter. So what are the things that I find really interesting is that people don't even realize just how compromised their liver and their gallbladder situation is until they get a gallbladder attack.

So could you describe like any of those lamps that you use, like what are your favorite markers to try to look for early warning signs? Because it is such a hard worker?

It actually I think of it as almost like lying, like, oh, I'm fine, guys, I'm fine. No, I'm not fine when it's already been in distress for quite some time for sure.

Well there's, there's, you're four key liver enzymes, so you're a t a l t your alkaline phosphatase and you're g g t. Now, a lot of times if you ask for a liver panel, liver enzyme panel, the really just run the ast alt alkaline phosphatase, but GGT is probably the most sensitive onefor gallbladder issues.

When that's real high, oftentimes it indicates that there's an issue going on in the kind of biliary tree, right? So or the kind of area with the bile ducts.

So that's a key one. Alkaline phosphatase also, if that's real high, unless alkaline phosphatase will be high, if you're a child and your bones are growing or if you have a fracture or, you know, potentially like a cancerous tumor growing in your bones.

But, you know, again, that's rare if you're having a lot of digestive issues, alkaline phosphatase is high. You have to start thinking, okay, gallstones, you know, bile production issues.

And then also you should look at bilirubin so you can actually test your serum bilirubin levels again, that, you know, most of that should be it should be low or should be very low because you should be getting rid of that in your stool.

And so if it's upover one, okay, up over one, then that's an indication that you're not metabolizing that well. So if you see your liver enzymes high and Billy Reuben High, you definitely have issues, right, with your with your gallbladder.

That's for sure. And your bile flow in general. If liver enzymes are normal and Billy Reuben's elevated, it's a condition I'm trying to think of. The name of it is it will Gilbert's disease?

Gilbert's is supposedly not, you know, a serious condition. All right. However, you know, in a sense, it's like a warning. It's to me, it tells us that there's there's starting to be an issue there.

Right. It's kind of an early, early sign. So I would definitely start to use some things to help thin the bile and see if you can see improvement with that bilirubin level and also binders.

So some things that can help, it could just be fiber, you know, just getting good fiber in your diet to help bind the bilirubin, get it out of the system and just getting your bowels moving.

Well, magnesium can be really helpful, so that can be helpful. Well, but, but those are typically what you're looking at and then there's different ratios, right?

So if you see, for example, your alt way up in your ast kind of the normal range and those enzymes, I didn't say the normal range, but normally it should be between ten and 26.

So you're seeing them up over 26 K or even on the high side, they're 24, 25 kind of trending up in that direction. That's a sign that you've got stress on the liver and if your ALT is high and your ASC, let's say it's in the normal range, it tells us it's specifically in the liver.

Okay. Whereas T if that's high in alt is in normal range could just be muscle inflammation. Maybe worked out recently, could be could be something going on with your heart.

So that that's a common indicator of heart issues as well. So some cardiac damage. And then when we look at GGT, if that's real high, like I talked like I talked about, that can indicate biliary tree and alkaline phosphatase as well.

So in the you know, in that in that biliary tree which is the bile ducts and also in the gallbladder. Yeah, that's that's a really great overview actually.

This is, I think been a super important master class for people on their digestive fluids and signs and symptoms that things have gone awry. I know we want to cover a couple of more clinical gems about gut infections and what all this has to do with gut infections.

And you you drank a lot of those gems along the way. Is there anything else you want to make sure we cover it when it comes to infectionsand these gastric being out of whack bile not moving. Yeah.

The last thing I would say is just couple couple of things that you can do. You know, when it comes to good bile flow, I always say that bitter is good for your liver.

Right. So bitter herbs. So that's going to be things like parsley, cilantro, milk thistle, which is common. And, you know, you'll find that a lot of supplements, dandelion, ginger, radishes, artichokes, these can all be very, very helpful for helping thin that bile and allowing it to flow more effectively.

So you can drink herbal teas with a lot of these things. Dandelion tea is a common one. Ginger tea, you can get licorice root tea. That's another good.

So you can find those in herbal teas, you can find them in supplements, but all those can be really helpful. There's bile salts as well. So different amino acids like taurine choline, you'll find those in supplements that can be really helpful, something called Tadka as well, which is really powerful.

Bile salt that really helps move the bile fluid through the system. That can be extremely helpful as well. But yeah getting good bio flow so keep are helping your detoxify helping you have good quality bowel movements just helping you feel so much better when your liver and gallbladder are not functioning well.

You might have trouble losing weight. You might have big bags under your eyes. A lot of trouble waking up in the morning. I see a lot of people issues just really creating any energy early in the day, especially needing to nap on a regular basis.

Just energy struggles are really big with that. Yeah, pain between. Melanins and issues. Yeah.

Practical tips for bowel movements and daily digestion

Skin issues. Yeah. You got it. All right. You just set a great one. Right shoulder pain. Yeah. Oh, yeah. Or just right in between the middle of the back and like up into the kind of the top of the neck kind of trap trapezius region.

Right. Just chronic pain, stiffness back there. Oftentimes liver, gallbladder issues. Yeah. Even IT band even IT band issues. There's yeah, it can be a reflex point as well.

So your Iliotibial Band, which a lot of people tightness in. So that's going from your basically your leg, your tibia, it's a big bone in your land, the front of your leg up to your hip, your hip region.

Call it the Iliotibial Bands on the outer part of your legs. If you're real tight, you can just kind of run your hand through there and kind of push in, like you're giving yourself a little massage, pure noticing.

Oh, man, it hurts. Real tightness in there. If you didn't have a recent sports injury or something along those lines, it could indicate there's issues.

Liver, gallbladder. Yeah, that's really well said. So what do you want to make sure the audience knows in terms of I mean, you gave us so many great action steps here and I think there's great gems for people who are just getting started on their health versus those folks who've been detoxing on their own for a while.

They know more than their GP's about their conditions and they're just looking for those gems that they may have overlooked. There's a lot of great pieces here in this interview and any last thoughts you want to leave us with in terms of those chronic gut infections when those digestive juices go right?

Yeah, I mean, a couple couple simple things you can be doing for, you know, to get well really cost you very little one is drinking a warm beverage early in the day and moving your bowels early so your large intestine is going to be most active between 6 a.m.

and 9 a.m.. So having 1 to 2 really good solid bowel movements in that period of time will reduce that microbial load, take a lot of stress off your system, move out bile and toxins and things like that, get everything flowing so much better.

So do whatever you got to do to help prioritize that. I found that warm beverages like a warm herbal tea or a coffee if you're able to handle caffeine.

Coffee is a bitter herb, so really helps, you know, bile flow and moving your end. And the caffeine actually stimulates the chlorogenic receptors in the intestines for peristaltic activities.

So that can really be helpful. But again, you know, not everybody here is going to be able to tolerate coffee. And I actually recommend for the best caffeine tolerance drink waiting roughly an hour and a half, 2 hours after you wake up anyways before you should drink coffee, because that way you don't you don't block your natural cortisol, release.

Right? Your cortisol starting to go down at that point. When you wake up, you should have this natural wakefulness and that's your cortisol levels. And then they start to go down roughly around 90 minutes or so after you wake up, and that's a good time to drink the coffee.

So herbal teas, warm herbal teas are a great way to get going early in the day and just hydrate your body. Well, that hydration will start to stimulate peristalsis.

You can put a little salt in your water. You can do warm lemon tea. Lemon is great if you're able to tolerate that. Well, that's a great for stimulating your vagus nerve and stimulating peristaltic activity.

For some people, they move their bowels better when they go for a walk early in the day. For other people, they need to sit still or sit in a certain position, you know.

So depending on you, you want to you want to really master your own body, your body's own natural rhythms. What helps you move your bowels? Well, you know, let's say in that first hour of the day, okay, whatever it is, do that right on a continual basis.

And that will really help your whole digestive symphony work better. Hmm. Yeah. There's so many times when we get questions in our rapid gut reset course or, you know, from clients or something in our practice.

And my first question back is when? When is the last time you poop like are you pooping daily? It's the foundation. You're not allowed to detox if you're not pooping and your body's not going to be in a position to maintain its own well-being if you can't do that.

So first things first. That's right. Super important. So first hour of the day, try to get that first bowel movement in. Yeah, exactly. Awesome. Thank you so much for sharing your thoughts today.

This is really helpful I think for folks to get just really grounded in what is the digestive process, what are the the fluids in each part of the digestive process doing?

What are those basic actions that must be taken? What are the symptoms that these things have gone awry so that you can investigate further? And some great gems today on the lab markers as well.

Thanks so much for your generosity. Thank you, Sinclair. Appreciate it. And I think this is a great summit. A lot of people are going to get help from this.

Yeah, thanks. Yeah. It's my joy to do it. I think of each one of these as a love letter to our audience. So where can people find you and your work? Yeah.

drjockers.com is best place to find me. Find me on Instagram, YouTube and my podcast, the Functional Nutrition Podcast. And you got a Leaky Gut Summit coming up and I think it's publishing right around the same time as this one.

So definitely with you guys not to be missed. yeah. Awesome. Thanks so much for your time today.