Digestion: Upper GI Healing Protocols

Transcript

Now that we've looked at the anatomy and physiology of the upper G.I. part of the system and we understand what can go wrong and how to assess it, let's turn our attention now to some healing protocols to help support the upper G.I., the stomach and the pancreas and the upper part of the small intestine. Before we begin, let's just make sure that you're aware that any of the information I'm presenting here is not intended to replace a one-on-one relationship with a qualified health care professional, and it's also not medical advice. When you're presenting to your clients, you need to be really careful and make sure that they are aware that what you're presenting and what I'm presenting here today is intended as a sharing of my knowledge, information, clinical research and clinical experience over many years.

I encourage you, and you should encourage your clients, to make their own health care decisions based upon your research and in partnership with a qualified health care professional. This is especially true for folks who are on any medications. I just want to make sure that the things that we talk about in terms of nutrition are not going to interfere with the protocols.

Let's just start with some of the basics, the basic support that we can do, and how your clients do to support their digestive function. Number one, very top of my list, is breath and relax before eating. Because what does that do? It puts people into that parasympathetic dominant mode, the place where we can digest and we can heal, and the enzymes are at their peak and you've got good valve function. Breath and relax before eating. Extremely important.

Next, super, super important thing to do to enhance digestion and support digestion is teach your clients to chew their food thoroughly. If they don't chew their food thoroughly, they're going to end up with aggravation and irritation throughout the digestive tract. The only place in the digestive tract that can mechanically break down the food in an efficient way is in the mouth. The teeth are super important and really encourage your clients that they need to chew their food thoroughly.

This breathing and relaxing and chewing thoroughly are the cornerstone of good digestion. What you're going to see is a lot of folks are going to be in this mode where they just say, "Tell me what to do. Tell me what supplements to take, what enzymes, what probiotics. What do I need to do to get my digestion to work?"

If they're not doing the basics, like breathing and relaxing before they eat and chewing the food thoroughly, and staying calm and relaxed throughout the meal, eating slowly and focusing on the meal, if they're not doing all of those things, their digestion isn't going to work properly no matter how many enzymes and no matter how many probiotics and all the other stuff you give them.

If they don't do the basics, breath and relax before eating, chew thoroughly, eat throughout the meal in a calm, relaxed state, not while watching the news and arguing with your spouse, and then eat slowly and focus on the meal and the wonderful nutrition that it contains.

Drink warm water a half hour before meals. That'll help because cold beverages will kind of paralyze the cells. They don't produce as much when you're drinking cold beverages. When you eat foods that are devoid of enzymes, and you eat a lot of cooked foods, the enzymes get killed at about 110°, 118°, and you don't have the enzymes that are in the food to help the food get digested. Your pancreas has to do the whole thing. It's really nice when you can have the enzymes in the food and help the food to predigest before it gets in there. But it doesn't always work that way. Eating as much living foods as you can, you know, whole foods, fresh smoothies, lettuce and tomatoes, whole grains if you eat grains, making sure that you're doing a lot of living foods. When I say whole grains, I mean sprouted, like buckwheat or quinoa, millet, that sort of thing.

You want to avoid gluten and dairy, but I have up there on your site an opportunity to listen an opportunity to read. There's a transcript up there, and there's also audio. Probiotic foods are really important, more for the lower down, and I'm going to hold off on talking about those right now because I want to talk about it later. Certainly, avoiding sugar, refined carbs and alcohol. Super important.

What can you do? You can supplement with probiotics, 30 billion organisms is about the minimum I recommend. It's so helpful for the pancreas and small intestine and digestion in general that you take some digestive enzymes towards the middle to the end of each meal. If you're taking stomach acid supplementation, you want to take it away from that so they don't interfere with each other. This is especially important during heavy meals, meals that have a lot of cooked foods or processed foods you don't want to be doing anyway. I'm telling people not to, but if they're having meals, they do processed foods or heavier meals, like meat and grains, then they should be taking digestive enzymes.

Let's talk about how we heal your stomach. We talked about bitters already and have a whole chart of them. We'll go through some of them and how you would create a program for somebody. Getting them on bitters? Good luck. I haven't had the best luck. Some people do it all the time and some people are resistant. You could try apple cider vinegar, because sometimes apple cider vinegar works as well, or lemon juice and water.

Lemon juice and water is easy, but it doesn't have the same punch. It's not the same. It's not really bitter. Apple cider vinegar is sour, but it seems to have a little bit in fact.

I personally think the best way to go with bitters, either bitters extract or just something green that you'd chew to a pulp and you keep it in your mouth for two minutes so that it stimulates that process. A handful of dandelion, a handful of arugula. Whatever. Without the dressing, without anything else on it. Extracted black pepper is actually healing, which is very interesting because black pepper was always thought to be very hurtful, that the Japanese had a higher rate of stomach cancer than a lot of other places, and they eat a lot of pepper. They also eat fermented foods, which is supposed to be good. It's confusing. The evidence is confusing.

Glutamine can be helpful. I use that usually more for the lower intestine, and licorice. My top line of defense for the stomach is if somebody has GERD, I'm putting them on, maybe 3 either licorice lozenges or half teaspoons of licorice in a drink a day and more if they get it so they can do it symptomatically and then they do it preventatively.

I also have people do slippery elm drinks before each meal, about 10 minutes before each meal. They'll do their bitters, they'll do their slippery elm drink, and then they'll eat their dinner about 10 minutes later. It makes a world of difference in coating and protecting and soothing and also in healing.

How do these bitter herbs work? Well, we talked about those parietal cells, right? We talked about those mucus cells. They actually stimulate those cells, the parietal cells, to make hydrochloric acid. We give it about 10, 15 minutes before the meal so there's time for it to take effect. Sometimes it takes a little while for it to get in and have an effect. It can also stimulate bile, pancreatic enzymes and hormones. Like, who doesn't want to have bile, pancreatic enzymes and hormones to be secreted? I certainly do. It can enhance your immunity. They can decongest the portal vein and they can decrease varicosity. A lot of people, they don't get the venous return, right, because there's congestion in their core. They get a lot of congestion, of the pooling of the blood in their ankles, and this can be useful for that.

It certainly enhances your immunity to do them because they're very nutritive herbs. Helps to calm your nervous system. That was a real interesting comment. It stimulates the parasympathetic nervous system. What's the parasympathetic nervous system? It's the opposite of the sympathetic. It's that blissful, just spaced out feeling that you get. Last but not least, they help to lower blood sugar.

How do you know which ones are bitter herbs to stimulate digestion? Well, the common ones are listed there. If you get a combo, there's one from Herbalist & Alchemist, and that one was formulated by my teacher. I think that one has orange peel, dandelion. He calls it DOPA.

D O P A. Dandelion, orange peel... I can't remember the other two, but probably artichoke was the A. These are some common bitters. You can get them anywhere. Milk thistle is a really awesome one that you can rotate in and out if you want to, but it's just a good herb to start taking because it hits you here in the digestive, but also in the lower.

These guys work similarly. They stimulate the parietal cells and they stimulate the bile. They take a load off your liver, and they help you to digest.

Let's talk about demulcents. What you're going to notice when you print this out and look side by side is that there's some overlap. If you're listening and you're saying, "Well, I need the demulcent," or "I also need the bitter but I don't want to take too much stuff," then you look and you see, ah, okay, licorice is on both. Okay. I could do licorice, right? Slippery elm and marshmallow and comfrey and Irish moss. Those are not going to be on both because they're just not bitter. They're not bitter at all. Cinnamon could be a little bit bitter and fenugreek.

If you have some of these that you've played with, play with them. If you've never used them, pick 1 or 2 and try them and see. I would certainly recommend that you... and I didn't put the foods on here, so chia seed works here as well. Chia seeds and flax seeds, the gel. They're on another side further down. But play with it. Like, for example, we made elixirs. I use licorice tea as the elixir. Now one thing I will caution you, and you really need to be careful with your clients, with the licorice, is that you need to make sure that they don't have high blood or that they don't have a tendency towards it, and that they don't take too much even if they don't have it because licorice can raise your blood pressure. It also can stimulate your adrenal system, which is really awesome.

But if you have a problem with blood pressure, you need to get the DGL licorice, deglycyrrhizinated, and that component is removed. But you can make an awesome, soothing G.I. drink. One of the ones I like is make a licorice tea and then take the tea bag out or the pieces, and then put a teaspoon of slippery elm in, stir that up and then drink it. It's delicious. I've done the same thing with peppermint. I've done the same thing with cinnamon. My new favorite beverage is just drinking cinnamon straight, but cinnamon with slippery elm would be an awesome G.I. soother. If you have a client who has this, they're saying they have this burning, you just can go ahead and give it to them.

Now it doesn't mean that you only can use these herbs. Like, if you wanted to make a drink or an elixir that's covering other bases, like, "Oh, I want to also add something for their adrenals," you put a little bit of ashwagandha, which is great. You can hit the stomach and the intestines. You can help them to create little recipes, or make recommendations. "Well, you know, this person has their burned out adrenals, they've got some thyroid stuff." And as we get towards those, you'll learn what herbs and stuff works for those. You'll go, "Huh, ashwagandha. Let's put a little ashwagandha.

Let’s have them make this beverage with some licorice and ashwagandha and slippery elm, and drink it before each meal." That can clean their problem out.

If you that, and you also do the bitters before the meal, so you do the bitters and then you do the strength, and then you have your meal, that baby is going to be humming. It's just a matter of teaching people to really connect with their food in this way and not be just mindlessly eating on the run. Because if they're mindlessly eating on the run, they're not going to have time to do these things.

The other thing, you know me, pre-meal ritual to optimize your digestion and your absorption because stress has such an impact on the digestive tract. Because stress has such an impact, you really need to teach them to do this, to stop, look at their food, look around the room, look for things to appreciate, tune into their heart, take a deep full breath and just really feel the appreciation.

Every time you put food into your body, and you can learn to do it in 30 seconds, and the difference it makes on how well your body absorbs instead of feeding ‘yeasty beasties’ or bacteria, funguses, viruses living in your gut that are getting a free ride because you're feeding them, you're no longer going to feed them. You're going to fully digest that food. You're going to clean up the act, and you're going to have much better digestion. That's what you can teach your people, is really to do conscious eating and conscious herbal food therapies along with the meals.

The action plan would be, have bitters before each meal, about 15 minutes. It can be as little as 5 if you get stuck, but 15. Create a premium ritual. Light a candle. You know, I love this little sand drawing. I find it so soothing and relaxing. Just something that brings you into a state of relaxation, something really nice and beautiful, even lighting a candle and having a gratitude over the candle. It's just a really nice habit. Or having a really pretty picture that you can look at that will get you into that state.

Taking enzymes. We'll talk about that in the next section. We'll talk more about that when we get into the duodenum and the enzyme piece. But if you take enzymes with your meal, it's going to help to make up for any pancreatic insufficiency. Chew thoroughly. Right? Chew, chew, chew, chew, chew. You know, There was a guy, I never remember his name, he was in the concentration camps in Germany way back when, when they had those, and everybody around them was getting killed, his family was getting killed, everybody, and he just kept focusing on what he... the things to appreciate. How much can you appreciate in a concentration camp? Not a lot. But that's what he did. What he did was he chewed his food thoroughly because that's all they were given, it's like a piece or two of bread a day.

He figured he had to make it last, and he chewed and he chewed and he chewed and he chewed and he chewed till it was completely liquid in his mouth and then he'd swallow and take the next bite. Viktor Frankl. Thank you, Michaeline. He chewed and chewed and chewed. He got every bit of nutrient out of that, even if it was white bread. Whatever little bit of nutrient was in there, he wasn't going to waste any. That's what I want for you. I want you to get all the nutrients out of that food. I want you to chew and chew and chew and chew and chew.

Do some soothing herbs, just as a matter of course. Find yourself a nice, soothing, warm beverage that you can drink and drink it 15 minutes, even a half an hour before the meal. It's going to warm your belly so that it digests better. It's going to sooth it, it's going to feed the mucus in there. If you do this combination of bitters and mucilage, that's most of what you need for the tummy, for the gut, for the upper part. This is really most of what you need.

If you've got the GERD and you've got some other stuff specifically going on, we'll show you some other stuff. A lot of times, people ask me like, how soon before the meal should you take your digestive enzymes? You don't take your digestive enzymes before eating. You take your digestive enzymes after you've started eating. The middle of the meal is probably best. Right? If you're taking Hcl. if you're not, you take it right. You can take it at the beginning. But if you're taking Hcl, you want to do it at the middle of the meal. You don't take it before your meal. You want to take it with the food. With the food. You can put the digestive enzymes in the food before you eat. I've done that. I mean, you open them up and stir it around and let it sit on the food, let it sit in that little nut butter pate or whatever, then it starts to do the digestion before it even gets in your body.

If you open up the protocol document for hypochlorhydria, this is what you'll see. Basically, there's a description of hypochlorhydria, which we talked about already. As a review, it's when the stomach is just not producing enough stomach acid, as opposed to achlorhydria, which is when the stomach isn't producing any stomach acid. The processes we talk about for hypochlorhydria would apply to achlorhydria. It's just going to be a little bit more challenging and going to take a little bit longer when the person is just not producing any stomach acid at all.

Let's review some of the symptoms. We've gone through this before, but basically there are symptoms that could also be similar to what somebody would be experiencing when they have heartburn or GERD or hyperchlorhydria, too much stomach acid. They may feel like their stomach is upset. They can have constipation or diarrhea, more likely to have constipation. But that feeling of fullness after a meal, and then signs of nutrient deficiencies like iron deficiency anemia, B12 deficiency, and other things that you'll see on the blood work.

You'll also see some signs like skin rashes, weak and brittle nails as a result of the low nutrient absorption, bloating gas and burping almost immediately after a meal. It happens

really quickly, and they may feel some heartburn or reflux with low stomach acid, just as they would with high stomach acid. Because what happens in low stomach acid, we'll talk about that more when we do the reflux protocol, but basically the lower esophageal sphincter becomes flaccid when you don't have enough stomach acid. The acid contents go up into the esophagus as opposed to it being too much acid causing the pain. It's acid in the wrong place, because the esophagus is not meant to be able to handle acid very well.

You can have other signs of nutrient deficiencies like thin, brittle hair and other signs like candida, chronic fatigue and tendency towards allergies.

Let's look at how we would evaluate what some of the common causes of hypochlorhydria are. I like to look at the symptoms survey and it helps me to differentiate between hyper and hypo. Just asking them questions is usually fairly easy to understand. There is a test called the Heidelberg Gastric Analysis test, which is an extremely expensive test with very specialized equipment where you swallow a capsule and it's got a little transducer in there, and you get to figure out how much acid the stomach is producing. Not a lot of practitioners have that equipment.

You do an HCl challenge, and we'll talk about that in a bit, the pros and the cons of doing an HCl challenge. You can look at stool analysis for candida parasites, other imbalances. You can also look into the IgG food sensitivity test, where... I'm not a big fan of those, but that's definitely a way that people look at it.

Another thing is to look at the causes of hypochlorhydria, and there's a lot of them. It could be an H. pylori infection. An H. pylori is a bacteria that bores it's way into the lining of the stomach and also into the small intestine. It's one of the common causes of leaky gut, and it's also hard to detect.

With aging listed as one of the signs of hypochlorhydria, just because as we age our stomach naturally goes lower. But other things can cause our stomach acid to go lower, and that would be adrenal fatigue, chronic stress, certain intakes of foods and substances like things you're sensitive to, alcohol, gluten, caffeine, all of those things can create low stomach acid. Gastritis, which is that irritation of the stomach lining, and it damages the little cells, the parietal cells that produce the acid, also we see the same thing.

Pernicious anemia, which is a low amount of B12 in the system as a result of damage to the cells that make intrinsic factor. Hypothyroidism can cause hypochlorhydria, as well as autoimmune conditions. Chronic use of certain drugs like antacids, for example, because you're constantly blocking that, and even steroids, aspirin, things like that.

Over eating of poor quality fats and animal fats. Saturated fats can be damaging to the parietal cells, as well as a diet low in protein because your body just goes, Oh, I don't need to be producing a whole lot of stomach acid, and then it may get into that pattern and it becomes a habit. Sometimes, drinking water with meals can cause low stomach acid because it causes a dilution.

We'll take a look at some of the ways that we get around the low stomach acid. How do we help our clients who have low stomach acid? Well, there's the common lifestyle habits that we've been talking about all along. Right? Chewing thoroughly, making sure you're relaxed and eating in a calm state, making sure that the person doesn't recline right after eating and stays kind of in a semi-upright position. Otherwise, if there's some lower esophageal sphincter flaccidity, you'll have that going up.

Avoiding over eating, eating small meals, just getting hydrated, avoiding ice water, because that affects the ability of the stomach to produce acid. If they're on an acid blocking medication that's prescription and you're giving them advice, you've got to make sure that they're working with their practitioner. Avoiding drinking water with meals because it can dilute the stomach acid, decreasing the amount of animal protein, increasing the consumption of some of the raw foods, which helps the body to produce more, and contains more digestive enzymes. Stress reduction techniques like biofeedback, hypnosis and counseling, just because stress can be a factor. Acupuncture can be helpful to help people restore their stomach.

Getting back to some of the dietary habits, well, we chew, chew, chew, chew, chew, and avoid overeating, high dose of vitamin C with the meals can sometimes do it, and including some demulcents to help with the damage that low stomach acid can cause. Like hemp seeds and their omega 3s, which help with the inflammation. Eliminating things like dairy and gluten, and very slowly having them increasing their fiber intake. They go too fast, the fiber may actually be irritated, irritating to the irritated tissue.

Stay hydrated. Garlic can be helpful, although there are some people who have sensitivity to specific carbohydrates and FODMAPs, and those we'll talk about more as we go further on. But those can be problematic with the garlic.

Increasing probiotic foods, increasing the dark green, leafy vegetables, which are loaded with nutrition and easily absorbed proteins. Avoiding refined carbohydrates and sugars, caffeine. For some people, not everyone, avoiding nightshades. Tomato, potato and eggplant.

Finally, we'll look at some of the herbs and nutrients. We'll look more at these when we go into GERD, so I'm not going to spend a lot of time on this. I have a whole section that we'll do on GERD, and it's very similar.

It's things that are demulcent, like aloe vera juice; things that are going to promote the production stomach acids, like apple cider vinegar and bitter, like green juices before the meal, herbs that are bitter like dandelion, orange peel, angelica; foods like arugula and kale. Gentian, dandelion are good ones. Clove oil can sometimes be helpful, as well as digestive enzymes. Garlic, ginger. Ginger tea is specially calming and soothing to the stomach. Grapefruit seed extract is an antimicrobial, especially if there's a case of bacterial overgrowth in H. Pylori. There's also things that can be helpful for the H. Pylori.

Things that heal like glutamine, your various nutrients to help overcome... because it's a vicious cycle, right? With low stomach acid, the person can't absorb zinc. Without zinc, you can't make stomach acid, so providing those extra minerals.

Some of the others that I have listed are papaya, which contains some protease enzymes. Peppermint oil, you've got to be careful of. If the person has low stomach acid without reflux, then peppermint oil can be okay. But sometimes, people get worse with peppermint because it makes the lower esophageal sphincter become more relaxed. Peppermint is a very good relaxant.

We talked about probiotic foods. We can also take probiotics as a supplement, and then some of the vitamins like the Bs and vitamin C and wheat grass. These are all things that can be helpful. You're going to help your person design a protocol. You're not going to give them everything. A lot of it is trial and error. A lot of it is try the basics first and then move into... help them with the bitters and the probiotics and the digestive enzymes and the demulcents, and then you can move into some of the other things.

Next, I'd like to walk you through step-by-step the HCl challenge test. HCl stands for hydrochloric acid. This is used when you suspect low stomach acid and you want to get a sense of if that's true, and if it's true, just how low is it? We do a challenge with hydrochloric acid, and we just keep gradually increasing the amount that you have a person take until they start to feel a hint that it's too much, and then you back off.

The reason I don't like to do this all that often is because it's kind of scary because some people might get aggravated by just taking one hydrochloric acid. If they've got an irritation, a gastritis, an inflammation in the stomach lining, in the mucosal membrane or even in the esophagus and you give them the HCl and it aggravates that. Okay? I prefer to go with inducing your body, their body, to improve the amount of HCl it's creating by giving it various herbs and nutrients. However, if you're going to do the HCl process, here is the way it goes.

Let's go through how to do this process. First of all, you're going to be testing meals, and you want the meals that they're testing to be similar from day to day. You don't want one day for them to test HCl when they've had a bowl of fruit and another day when they've had a steak and apple pie. It's very, very different. What you're going to ask them to do is take their heartiest meal of the day, their most complicated largest meal of the day. That's the one that you're going to test with, and that's what you start way. In that way, you're less likely to create a problem where they get into a burning sensation.

What you do is you have them start with one 500 mg to 650 mg capsule, not a tablet, not liquid and not powder. The reason you don't want it to be a tablet or liquid or powder is because you run the risk of those starting to dissolve before they reach the stomach. Remember, the stomach is what has this amazing mucus bed to protect it. The esophagus doesn't, the mouth doesn't, the threat doesn't. Okay? It has to be a capsule, 500 mg to 600 mg capsule. You don't want to ever have them open up the capsules.

You also want that capsule to have pepsin. Almost every single brand I've ever seen does. It has usually around 150 mg of pepsin, give or take, somewhere in that range. You have them start their meal. Is this very important? You don't want them to take it on an empty stomach. You don't want them to take it before they've eaten anything. You want them to take it after they've eaten a few bites. First day, that's all they do is the one. Now what they're going to do is very carefully observe how this makes them feel. Okay? How do they feel when they take that? Do they feel fine? Do they feel better? Do they have a little warmth or burning in their tummy? If they have a little warmth or burning in their tummy, you're going to stop. If they get aggravated, we have a procedure, which I'll go through with you in a bit, on how to handle the stomach discomfort. You want to make sure that the next day, they're testing the same kind of meal. You don't have them test breakfast one day, dinner another day, lunch another, completely different. No. You have them do it, and make sure that there's some sort of a concentrated form of protein at the meal. I mean, we know that greens have proteins. Salad has protein, vegetables have protein, but you want them to try it on something that has more protein, just to buffer it and see how they're handling the heavier protein.

It could be nuts or seeds. It could be grains or legumes, could be fish, meat, eggs or dairy, although I'm not a big fan of getting people to eat eggs or dairy because of the allergenicity and the problems that they cause in the digestive tract.

On day two, they take two capsules at the beginning. The way they do it is they take a few bites of the meal, they take the first one. They take a few more bites of the meal, they take the second one. Okay? Again, if there's burning or discomfort, they stop. If not, they go to the 3rd day and do the same thing. Again, being careful that it's the same complexity of a meal.

Go to the 4th day. I generally don't let them go past 4, although I have had people go way past 4. Okay? You really have to judge it based on how it goes. But I try to get them to stop at 4. I'm hoping that at 4 it tells itself. Some people do need a lot more, but I would be very careful and leery about having them take that much more.

I have little tracking sheets so you can have them tracked. The date, the number of capsules, the meal, and then the reaction. If it was January 1st they had one capsule and you have them write down what they ate so you can analyze if something goes wrong. Have them write down what they ate, and then you have them write down their reaction. Okay?

Day two, they do two. If they had no reaction, they write no reaction. Day two they say, "I felt a slight bit of warmth." That's where they stop and we actually have them go back to the one, and that's their dose. Wherever they get the warmth or sensation, they back off a dose and that's what they continue to do.

Now if they're going to continue to do that, just at that complex meal. Okay? If it was just one, then they probably don't need any if they're just having a really simple meal. They could carefully try it at a lighter meal, but they're going back to ground zero, right, to just one. If someone wants to try a half, what they have to do is have some empty capsules on hand, open one up, put half of it into one capsule, close it with the other half in the same capsule and close it. Okay? Never have them take it as a powder. But some people do need a half, and so people ask me about that all the time.

What happens if they get a tummy ache when they're doing this? Well, if at any point during that they stop, and if it really doesn't feel good, it's not going away right away, there's a couple of things that they could do. Number one, slippery elm dissolved in 8 ounces of warm water, 1 teaspoon, and they continue every 15 minutes until it subsides. It's usually gone within an hour. Another thing they can do are half a cup of aloe vera juice, or a quarter of a cup or half a cup. They could do that with the slippery elm if they want to, specially if they've taken the slippery elm and it's not getting better, they can alternate the slippery elm with the aloe vera and they could take it more frequently. If they're not getting relief in an hour, you need to get them to get that down because we don't want their stomach lining and esophagus eroding. what they could do is take a quarter teaspoon of baking soda in 4 ounces of water and drink that, and they could do that every 15 minutes. That's going to actually stop the acid production, right? In addition to just decreasing the acid that's already there, it's going to stop the acid production and it may go way too low and then compromise the way that the body digests that protein meal and the minerals in that meal.

I prefer if they can do the A or B because that's where you're basically going to sooth and start to comfort the membrane and coat it. Okay?

The last option is to take an alka-seltzer gold. If this is a person that's already been on nexium or some sort of thing, they may have that around, they could probably take that. But these are the kinds of things they could do to help it.

The interpretation. If they had pain with the first dose, it's likely they don't need Hcl, or there's some irritation. There may be some gastritis. They may actually need it, but they can't take it at this point. What I recommend they do then is to try just doing this DGL and slippery elm for about a month to heal the lining and then go ahead and try it again if they're still having symptoms of low stomach acid.

If they make it to day 4 without any discomfort, they likely have a very severe deficit and have been experiencing a significant digestive deficiency as a result. Now here's the deal: they don't have to take Hcl if they've done the Hcl challenge. You can actually just use the Hcl challenge as a test to see how badly off they are. Once they've done that and you say, "Woah, they have a lot of problems here. They needed 4 and they didn't get relief," they could either take the 4 and also work on things to help them make their own stomach acid. Or they could just not take the Hcl and just work on making their own Hcl.

The corrective action is they could supplement with Hcl. I tell them to take, at most, 4 capsules. We can stimulate their own Hcl production with bitter herbs, juices and foods like dandelion, arugula, bitter greens or juices, about 15 minutes before each meal; or get a bitters formula. One of my favorites is Herbalist and Alchemist, but I know other herb companies like Herb Farm, and Gaia do have their own. Find one that works for them that they tolerate.

Now my preferred way to do it is if they are going to take the Hcl, you do both. Now if they get up to 3 or 4, it's probably a good idea to do both because just doing the bitters might take a while. But I don't like when they just do the Hcl because to me that's just a band-aid. They're not actually helping the body make more. They're just giving the body what it's not making. Unless we know that there is complete damage and breakdown of the cells by an autoimmune process, then it's not a great idea to do the Hcl alone. It's also a good idea to take zinc with the bitters. The reason for that is that zinc is important for making the acid by stomach the cells. If you don't take the zinc and you take the bitters, you have all the stimulation to make more acid but you don't have the raw materials that you need.

My preferred way to do it is to do the zinc and the bitters. If the person has very long-standing hypochlorhydria and they made it up to 4 without any problems, then really, really important that they do the bitters and the zinc. But they may want to do the Hcl as well, but it's really important that they do the zinc and the bitters.

On the zinc, the dose would be probably around 30 mg a day. It can be a zinc picolinate, a zinc citrate or a teaspoon of liquid zinc. If the person is showing signs of long-standing mineral or protein deficiencies, it's a possibility to consider an amino acid or protein drink supplement while getting things back up to speed. We always want to shoot for helping the body to do its own thing, but we also are aware that sometimes people just need some immediate relief. It's also very important is that the person has symptoms of excess stomach acid or GERD, or gastritis, or it has a history of an ulcer, that you don't have them taking Hcl, that you work with the bitters instead.

In this document, I also have a summary of the major signs of low stomach acid. You can review those, and also some of the blood values that can be suggestive, not necessary diagnostic, but suggestive of low stomach acid like low-protein globulin, ferrite and calcium, magnesium and BUN. B12. B12 below 350. CBC, the mean corpuscular volume, which is the size of the blood cells, if it's over 93, generally it could be a sign of low stomach acid.

If you do a stool test with them and you find that they have an imbalance of the normal gut flora and an overgrowth of unfriendly critters and lots of yeast, it's a good possibility that they have insufficient stomach acid.

Hair analysis. If 5 to 6 of the minerals are low, not including potassium and sodium of course. You've got a good understanding now of how to do the Hcl challenge test, and now we're going to look at one other imbalance of the upper G.I., which is GERD. Here, if we open up the one that says acid reflux GERD, I described what we've already talked about, the fact that heartburn is often caused by too little acid in the stomach, your esophagus doesn't have the protective mucus membrane the stomach does and so the acidic contents burn and eventually erode the lining, resulting in what's called reflux esophagitis. The esophagus is actually healed. Sometimes people have big ulcers in their esophagus. It takes a really long time to heal, and that's where they need a lot, a lot, a lot of demulcents, a lot of the slippery elm and a lot of the licorice. Cabbage juice is another thing that can help as well. But you have to be careful if you do too much cabbage juice if you have a thyroid problem.

When you evaluate them, you're going to do a symptom survey. You might do blood chemistry. There's going to be a lot of lows if you do. If you see, "Wow, they have low iron, they have low ferrite and they have low protein, they have low phosphorus, calcium, B12," everything is low, that's a clue that they're not making enough stomach acid to be able to absorb these.

If you go to the CBC, you might see a high MCV, which is going to say their B12 is low. If you do H. Pylori testing, either blood or stool, then you might confirm that there's some H. Pylori going on. But they may have low zinc on it, zinc assay test.

There's something called a urinary indican, which we'll go into in the assessments piece; food sensitivity testing, and there's something called the gastro test, which is... it's an interesting test. Basically, you have a string. Basically, it's a piece of pH paper attached to a string and you can order this stuff and you can actually swallow it down. You need to have a partner doing it with you so they could pull the string back up, and you have to bypass your gag reflex. But you put it down there and it measures the pH of your stomach. It's an inexpensive way to do it. I haven't ordered it yet. I keep meaning to, but I just haven't gotten around to it. Check it out.

Common causes, we talked about those already. You can read through those. Lifestyle habits to heal acid reflux/ You don't want to eat late at night because that food in your belly is going to be pushing against that LES, lower esophageal sphincter, and the food can escape through.

The other thing is that when you don't have enough stomach acid it causes the LES, the lower esophageal sphincter, to go flaccid. It causes that. Low stomach acid contributes to reflux because it causes the sphincter not to hold. That's kind of interesting, huh? You don't want to eat late at night. You don't want to over consume fluids with your meals because it dilutes things too much. There's more ability for it to back flow. You want to eat slowly, chew your food thoroughly and don't overeat. Don't overeat, don't overeat, don't overeat.

Habits that can heal. Avoid excessively cold beverages. You know, you have some nice, warm beverages before your meals if you have reflux or you have a patient with reflux. That's what you need to do. You want to avoid caffeine and sugar, gluten permanently. Until your acid reflux is gone, they shouldn't be eating those things. It's going to keep contributing to the problem. Temporarily, during the phase that it's aggravated and things are irritated, you may have to avoid chocolate, citrus, tomatoes, onions, garlic, peppers and any other foods that you find irritating. Some people can't do peppermint. You want to increase the muselage and foods like flax, chia and psyllium, and then you want to increase your probiotic foods like sauerkraut, kefir and cultured vegetables.

What else? What are some of the supplements that help? DGL licorice can come in lozenges, very easy to find. It can come in a powder. You can get them in capsules. I tend to like the lozenges or the powder the best because it gets... you know it's going to coat the surface and it's going to help the esophagus. Usually, if it's capsules, they don't burst open until they get down into the stomach and the acid hits them. But if you're trying to help with esophagitis, I really think it should be lozenges or powder, that you make a little paste and drink or mixed in with the slippery elm, which is going to go more slowly.

We talked about slippery elm. Marshmallows, similar to slippery elm. It seems like some people like slippery elm better, some people like marshmallow. You can experiment with them. Any of these herbs you can find on Mountain Rose Herbs. I've mentioned that a lot of times, and the link is on my website. Mountain Rose Herbs is awesome. I just love to experiment and get little bags of powders of different things. Apple cider vinegar, a tablespoon in 8 ounces of water before meals, can actually help. You would think that it wouldn't because it's acid, but it actually does. I wouldn't do Hcl treatment unless you've got 5 to 10 years experience under your belt. There are ways you can use it. I wouldn't do it. I would be very, very, very careful with doing that, and it's only after you've tried some of the other stuff and it's not working and you can't get the stomach acid up.

Comfrey, I don't use that too much unless it's a real severe case and they're not responding to other stuff, because comfrey is high in pyrrolizidine alkaloids, which can be harmful to your liver in large amounts. If you're doing comfrey, just do a week or two of comfrey. Comfrey is really healing and soothing, really healing and soothing.

Irish moss is a sea vegetable. You can get it online. You can get it at most of our health food stores now. It's kind of a stringy sea vegetable that when you soak it and then blend it, it can turn into this really nice paste that you can use to thicken things. I've used it to thicken desserts and make puddings and make cheesecakes and all sorts of wonderful things with it. You can even make an Irish moss drink. There's an interesting story about an Irish moss drink that the Jamaicans down in the island of Jamaica, because they've discovered that their Irish moss, which grows prolifically down there... what they did was they found that it was good for virility. It was good for making the men more men. There was a run on Irish moss and all the men on the island were doing it, they were running out at the Irish moss because everybody was doing it for their virility. Irish moss is really good for virility as well. I don't know what it does for females, but it was mostly the men that were using it.

Cinnamon, chamomile, fenugreek. Good ones. Jujube dates, they're not as sweet as regular dates. They're something that's used a lot in Chinese medicine, but it's really got a lot of demulcent quality to it. Of course, we have our probiotics. The other vitamins and minerals that are important are C, A and B5, and I think I want to add B1. Write B1 on that list because B1 is really important for helping to restore and fluff up the mucous lining throughout your digestive tract. I've seen people heal dramatically when they go on vitamin B1.

A couple of things. Ask, "Do you like Irish moss flakes?" "No." I was cautioned by the person I learned sea vegetables from, my mentor in the area, Ryan Drum, he's really brilliant, and he harvests his own sea vegetables. But he said, and I was listening to one of his recordings, and he basically said that with the powder, you don't get as smooth a paste.

You still can get flakes that are going down into your gut, and then those flakes can get caught inside the villi. You'll see the rugae and all the folds and stuff in your stomach and in your intestine, and he thought it was dangerous, that you could actually build up an infection. I like the whole. I definitely like the whole.

You've got a lot of stuff here, and I think you have enough to go on. If somebody crossed your path, I think... so let me tell you what's going to happen after this. We're going to look at the small and the large intestine, we'll look at leaky gut, diverticulitis, food allergies, constipation, and we have a few other things we'll be looking at. Review the timing of Hcl and enzymes for low stomach acid, and what I would say is first you would do, if you're going to be doing the Hcl and you're going to be... I want you to do the bitters first.

What I would have you do is do your bitters about 15 minutes before. This is ideal, of course. 15 minutes before the meal, you do you bitters. A little bit after that, you make your little slippery elm or marshmallow or Irish moss or whatever, your little beverage, your kind of gooey beverage, and you can put whatever other herbs in there that you'd like from the list, from the healing list. You start your meal and after a few bites of the meal, you take Hcl. If the person has worked up to 3 or 4 Hcls and they've done the challenge, they know they need 3 or 4, you have them take a few bites of the food, have the first Hcl; take a few more bites of the food, have the next Hcl. Take a few more bites, have the next Hcl.

We're trying to simulate the way the body does it. The body just doesn't dump a whole bunch of Hcl all out at once. The enzymes then you would do towards the end of the meal. Because what you don't want to happen is you don't want the Hcl to damage the enzymes. You wait till the Hcl has started working and dissipated, because when it's whole in that capsule, if you have the enzymes together, you run the risk of deactivating the enzymes. Then you go later in the meal, you would do the enzymes, right, because the enzymes don't really come into play until it goes down into the small intestine anyway, into the duodenum. Tailor the enzymes to the contents of the meal. Okay?

Say they have a really light meal, they just have a salad with some lemon on it, just vegetables, no fat, no... or maybe a pinch of, you know, avocado slice or something. They may want to do one enzyme with that meal. If they eat a higher protein meal, say they are having some more nuts or seeds or meat or beans or grains or a more complex meal, it doesn't have to be a big hullabaloo thanksgiving meal but just something more complex, like, say, a raw foods pizza, which is pretty complex, it's got a lot of components to it, you'd go with 2 or 3. I really help them to do conscious eating, which means you take the enzyme, you see how that feels. You take more and you just keep going up and up.

Yvette says would you please briefly discuss what would cause a severe casein allergy? Well, casein should not be eaten by us adults. I don't believe we should be eating casein, first of all. Most people have casein allergies. A lot of people have casein allergies, not most. What would cause it? Well, we're going to be getting into leaky gut and we'll talk about what causes food allergies later on. We'll talk about that in a little while. Any allergies, the same thing as would cause a gluten allergy or a quinoa allergy or whatever, it's usually a compromise to the digestive tract, which is no longer being a barrier to larger molecules and is allowing them to get into the blood stream. We'll talk about that mechanism. Perfect segue.