

## Upper GI Education Transcript

In order to take a good look at hydrochloric acid and stomach digestion, why don't we get a running start at this, and let's actually start a little bit higher up the pipe, so to speak. So much starts right here, and we want to look a little bit here at the oral microbiome, because once we learn these principles, and it's easy to start thinking about them in our G.I. tracts because we've had a long time to say, "Oh, we have the probiotics. We don't want the antibiotics to be killing all of our good probiotics. What do we do? Or how do we take an antibiotic that won't do so much damage?" And science actually says to take a probiotic while you take an antibiotic, if you need to take a drug antibiotic. Throughout this talk you'll be hearing, of course I think it's time that we challenge what's going on with antibiotics in our culture and the damage that it's causing.

In fact the global threat to humanity that the antibiotics are causing by creating more super germs. And so it only makes sense that we should take a moment and look at this, but I think we want to keep our perspective because too often we find that we as human beings, I'm sorry to say, sometimes we're just looking for something else to hate. Instead of saying black and white, "all antibiotics are bad", or "I'd never do that", let's just keep it in perspective that antibiotics in the food absolutely not. We don't need them there, we don't want them there, get them out. Antibiotics for just getting your teeth cleaned or something like that, this is getting to be over-rampant use of these substances. My favorite analogy is gut shot on the battlefield and all the feces has leaked inside your body and you're going to die, the antibiotic will save your life.

Antibiotics throughout the course of the last 70 years have been a tremendous blessing for people and their loved ones to have that immediate intervention. It's again the acute use of where they are needed and not the chronic use that becomes the issue and the overuse. So now let's take it right up into the oral microbiome where most of us have been taught since birth. We need this plaque fighting toothpaste, and you need this fluoride toothpaste, and you need to use this mouthwash to kill those bad bacteria that cause bad breath, and you got to little spray before you can go on a date and this type of thing. And the fact is if we had good oral microbiome, if we had good plaque, we wouldn't have to worry about all that. And so now we need to go back and we examine - do we or do we not have good plaque? If we have good plaque in our mouth, good bacteria that make a fine, shiny, sleek, smooth, biofilm over the teeth, that's nature way of protecting our teeth, and that's nature's way of also bringing probiotic species on down the pipe and it actually supports the stomach. So a good healthy oral microbiome supports the stomach. If we're killing the oral microbiome with our Triclosan fluoride toothpaste or mouthwash

and this type of thing, we're doing the same thing in our mouths that we are complaining about with the overuse of antibiotics. We keep encouraging the bad guys to come forth. So that's a different thought process here. We might start looking more at what we do about maintaining good healthy bacteria in our mouths and get off of the bandwagon, "we've got to kill everything in our mouths", and wake up every morning with a new growth of even more resistant bacteria, and then have to figure out how to kill them.

Now, as we move on then from the oral microbiome supporting the microbiome in the stomach, they're interrelated but they're different. Now we can talk about the digestive fire. That's hydrochloric acid; that's the fire of life that makes our stomachs a crucible to kill bacteria and yet to initiate digestion all the way down into the small intestines. This is where we base getting our absorption of magnesium, and sodium, and iron, and zinc. This is where we get our proteins to digest. It might just help to understand a little of this wonderful fire process in our bellies. We eat a food, and from even under the tongue, the immediate brain connection is telling the stomach "Get ready, look at what's happening." It's talking to the immune system. Do you have a challenge coming down the pipe? The body is going to be looking at something called peptides in this food. Whether they're vegetable peptides or whether they're animal; they're proteins. When the body realizes that this is not just sugar or starch, this is not just fat, there's peptides here, then these proteins are going to tell some cells in the stomach called G cells, that it's time to make Gastrin and it makes this substance. Gastrin then responds and causes histamine to release. Histamine then tells the parietal cells to release the hydrochloric acid. The hydrochloric acid breaks the whole thing down. It's coming in with the fire, the crucible, and it starts the digestion process, and it's now going to serve us to kill the bacteria and to initiate the pepsin enzyme that's going to initiate the pancreas to be ready and put forth the protease enzymes. It's going to start digesting these proteins, because foreign proteins are a problem in the body because every bacteria and pathogen and parasite has proteins that our bodies can recognize and say, "This is an enemy.

Basically, hydrochloric acid's concept is to take whatever bacteria, fungus, and things that are growing on our food, and be able to kill it. An infant has very high levels or we might call it low pH of hydrochloric acid. Theirs is very strong and it takes those sugars and proteins and fats of milk - of breastmilk - and breaks it down and you'll see that a child will grow like a weed in those early days, and the hydrochloric acid is so strong. Animals such as dogs have extremely low pH, very powerful hydrochloric acid. And that's why they can eat decayed meat or the dogs get in to what they get in to. That's part of their role in the great cycle of life. As human beings, we do things that start to inhibit or impair our hydrochloric acid. Snacking all the time is one, because we're constantly asking ourselves out of rhythm, out of any circadian rhythm to keep

producing, keep producing. And so we've adopted nervous snackings and things like that start to deplete hydrochloric acid. So even people eating healthy foods can turn up with low hydrochloric acid. It might sound paradoxical, but low hydrochloric acid is responsible for 90% of heartburn of esophageal reflux. And you go, "Wait a minute, why would low acid cause me to burn so much?" And that's because it takes a higher amount of acid to tell the valve, the esophageal sphincter, to shut. So again and we've got this system of locks like the Panama Canal and here comes the food and it goes through a sphincter that opens, lets it go in the stomach, but then it closes. Now that keeps the acid from bouncing back up in the tender esophagus and causing the burning.

When the acid gets too low in the stomach, that valve doesn't know to close, and so it can stay open. A person lies down after a big dinner and gravity isn't there and they'll slosh the hydrochloric acid - even weak hydrochloric acid. It's so acidic, it's so powerful, even a weak amount of hydrochloric acid will burn the heck out of the esophagus and cause all the burning. So the person takes bicarbonate of soda - baking soda - the person takes antacids, and so you could really determine that if you have low hydrochloric acid production, you're probably using a lot of antacids.

Now your proton pump inhibitor drugs are on the same bandwagon. They're causing more of a problem than they're fixing, because they're suppressing hydrochloric acid. If you don't have that hydrochloric acid, you're not killing the bacteria, you're not digesting your protein, you're not initiating pepsin and pancreatic proteases. You're not absorbing your minerals. Big trouble. Why would we want to lower the stomach acid when I said 90% of the cases, they need to raise it. And for people that are over acid, usually it's stress, cigarette smoking, something else that is wrong that causes that drip, drip, drip, that used to be talked about in the TV commercials. So the point here is that by building and restoring hydrochloric acid function with the stomach, you're supporting the health of the parietal cells. You're giving your body another front-line defense against the microbial kingdom. So let's not lose our teeth, and let's build good hydrochloric acid that shuts that esophageal sphincter that takes care of business for us.

You might be wondering, could you have weak hydrochloric acid? And we'll look at just a few symptoms here that you might use as a benchmark and say, "Well, I'd better pay attention, and test myself, or see what I need to do to restore the hydrochloric acid and the parietal cells. Now if you have undigested food in the stool, that's a very good one. Belching. And the SIBO, the small intestinal bacterial overgrowth. Bloating, it's tied in with this mechanism, this brain/gut, gut/brain communication that involves hydrochloric acid in the



stomach from the get go. The human body is indeed a holistic model and you can't break it in one place without affecting everything else it seems. A candida overgrowth would be another one, adrenal fatigue, hyperthyroid activity. Asthma has been clearly linked in scientific studies to low hydrochloric acid and indigestions.

Basically, in our culture, if you're over 45 years old, you need to be looking at strengthening and supporting the parietal cells and the stomach's hydrochloric acid, and certainly if you're using antacids or proton pump inhibitors, you should be looking for an exit plan. Get yourself corrected at the get go, and not depend on something that you've got to keep taking from the drugstore to maintain the system. It's a sinking ship, and you're not bailing fast enough if you have to do that.

We've talked a little bit in these videos about H.pylori, and it's a bacteria that when the oral microbiome is not supporting the stomach microbiome, and the H.pylori proliferates and starts attacking the parietal cells to lower the amount of hydrochloric acid. That's one reason why it can go down, because it prefers to live in quite a little bit less caustic environment, even though H. pylori's pretty scrappy and it can handle the acid. It's just turning on the air conditioner a little bit, creating its own little Shangri-La there, and there's nobody to tell it no if antibiotics and things that we've done with the oral microbiome are disrupting that. And so even from the other end – dysbiosis in the colon has a bearing on the whole system- the hydrochloric acid.

So when we put all of this together, we want to reestablish good hydrochloric acid function, front line immune. We want to restore this, the taking of food and putting it in our mouths, and putting it into our bodies, is incorporating the energy of the sun, the water of the earth, the renderings of the microbiome of the earth into the plants to make it part of our bodies, through our nourishment and our healthy lives. So right here is one of our key points of where we have a connection with the earth, and we should be working to maintain and protect our good digestion as a very simple foundation of our health.