



Fire in the Stomach Gastritis and Stomach Ulcers

by Milton Teske MD

A common presentation at the ER where I work at almost any hour of the day or night is someone who comes in because of a severe burning pain in the region of the stomach. It may have been present for some time on an intermittent basis, they may have noticed it was worse after eating spicy foods, they may have noticed that eating sometimes relieved the pain, they may have been taking antacids like Mylanta or Maalox for these pains. But now they are in the ER because the pain has become so severe they can no longer stand it and they have no relief with other measures.

We have medicines that can stop the pain while we do some tests to rule out other causes. But frequently we will give a mixture of three medicines to drink we call a GI cocktail (also know by some of the ER staff as a Green Lizard). It tastes really awful and leaves a numb feeling in the mouth and throat but frequently it gives immediate relief of the severe pain and if it does it confirms our suspicion that this patient is suffering from a gastric ulcer. Patients who have experienced this relief will frequently beg for another Green Lizard if they should come to the ER again in the future with a reoccurrence of this severe stomach pain.

If a gastroenterologist were to do an endoscopy to confirm this diagnosis he would see through his fiber optic camera that the normal pink tissue lining the stomach had become very red and inflamed (we would call this gastritis) and that in some areas this normal tissue had become completely eroded away exposing the underlying layers of the stomach wall as raw and frequently bloody ulcerations.

What has happened to cause the stomach wall to become inflamed and then eaten away in this manner? Remember that it is the job of the stomach to digest food. And to do this it secretes concentrated hydrochloric acid and powerful protein dissolving enzymes. If you were to put your finger in your stomach it would be completely dissolved to the bone in about 10 to 20 minutes. Some people eat animal flesh (beef, chicken etc.) and it is dissolved and digested in the stomach before passing on to the intestines where it is further digested and then absorbed in to the blood. Now think – the wall of your stomach is made of muscle and other tissue – why isn't your stomach wall digested by all of these powerful acids and enzymes?

The reason your stomach doesn't digest itself is that it is lined by a layer of cells (the gastric mucosa) which is covered by a thick layer of mucus which separates it from the acid and enzymes thus protecting it from the action of these powerful destructive agents. But if this protective layer is broken down and the acid and enzymes can come in direct contact with these mucosa cells they rapidly become burned by this acid mixture and become very red and inflamed and we call this painful condition gastritis. But if this process continues, these mucosa cells are completely dissolved and now the acids begin to dissolve the underlying muscle layer – we call this an ulcer. And if it continues it can dissolve a hole completely through the stomach wall resulting in a perforation. Now these acids and enzymes and other stomach contents are leaking into the abdominal cavity through this hole resulting in even more severe pain – this is a severe life threatening condition that will require immediate diagnosis and surgical treatment to repair this hole.

Sometimes the ulcer can dissolve into an artery in the stomach wall resulting in uncontrolled bleeding into the stomach. This patient may present with vomiting of blood or blood passing from the rectum. This also is a life threatening condition that requires emergency intervention. A gastroenterologist can take his scope and go into the stomach and try to cauterize this bleeding artery – if he is not successful an interventional radiologist can do an angiogram of the stomach and then try to inject material into the bleeding artery to permanently plug it up.

But if the ulcer has not yet progressed to one of these life-threatening conditions – what can be done to reverse this process and heal the ulcer? The cells of the body are always growing new cells and replacing the old cells. You are probably aware that you are growing new skin cells all the time as old ones are washed and rubbed away – you completely replace your entire layer of skin in about one month. The gastric mucosa is doing the same thing all the time – only you completely replace your stomach lining every 8 days! So your stomach is very capable of healing itself and growing a new layer of mucus producing cells to protect it. We just have to stop doing whatever it was that broke down this protective layer and started this process in the first place.

So what do we do that causes this layer to break down resulting in gastritis and ulcers? The two biggest culprits are alcohol and smoking. The next is caffeine (coffee, Pepsi, etc.). But some people say I've been smoking or drinking coffee for years and it doesn't bother me. This may be true but that doesn't mean it isn't affecting the stomach lining – it just means that God made the stomach so strong that it can survive this abuse for many years and keep going on. But sooner or later it will succumb to this repeated abuse and gastritis and ulcers will be the painful result.

Hot spicy foods can also cause a burning of this stomach lining. Black pepper, hot chili peppers and many other hot peppers as well as some other spices have substances in them which cause a burning of the tongue when eaten and later after the burn has been washed from the mouth continue their burning in the stomach and throughout their passage through the intestines. These spicy foods should be avoided for your stomach's sake.

Vinegar is another cause of ulcers. Vinegar is great stuff – for cleaning windows. But that same action that cuts through the grime on your windows can cut through the mucus protecting your stomach wall. Drug companies must do extensive testing of their products such as antacids and other medications for stomach ulcers. Do you know how they test them to see if they help to heal ulcers or not? First they take rats and give them vinegar to drink until they develop ulcers – then they give these rats their various medications to see how well they work in helping to heal the ulcers. So if you would also like to test some of

their medications for ulcers you can just eat pickles until you get an ulcer and then go to the drug store and take some of these medicines and see if they help to heal your ulcer too.

Aspirin, and other medicines (Motrin, Advil, Aleve, Naprosyn, etc.) commonly taken for arthritis or other pains are also common causes of stomach ulcers.

The obvious sensible solution to ulcers is just stop doing what caused the ulcer and let the stomach heal itself. But the pharmaceutical industry has another way: just use their medications regularly and then you can keep on eating whatever you want without pain – or at least you can relieve the pain when it gets too bad with some of their medications.

Antacids, like Mylanta or Maalox neutralize the acid in the stomach and thus stop its burning action on the stomach wall. But think – that also means that you have stopped the digestive action as well – and the whole purpose of the stomach is to digest food. Do you really want to shut that process down and pass along undigested food for your intestines to try to process? This is not really such a great solution.

Many other medications work by blocking the stomach cells from making acid and other digestive enzymes. Zantac, Pepcid, Prilosec, and many more similar drugs are taken regularly by many for these conditions and the result is the same as with the antacids in that they stop the burning and they shut down digestion. We now also know that these drugs also affect other parts of the body as well resulting in increased numbers of fractures of the hip and wrist and increased pneumonias. They also block the release in the stomach of the factor necessary for the absorption of vitamin B12 resulting in B12 deficiencies.

We have been counseled by God to avoid the use of alcohol, tobacco, tea, coffee, vinegar, hot spices and drugs. If we follow this advice we can protect the stomach so that it can continue its important functions, and even if we have developed gastritis and ulcers from ignoring this advice, the good news is that we can repent and return to obedience to this counsel and the stomach will rapidly repair the damage.