Ulcers

written by Dr. Ronald Hoffman | October 4, 2013



Up to 12 percent of Americans have ulcers at some point in life. Peptic ulcers are sores found in the lining of your stomach or of your duodenum, the upper portion of your small intestine. Duodenal ulcers are the more common, accounting for 3/4 of all cases. Ulceration occurs when the stomach's or duodenum's mucosal lining cannot withstand the corrosive action of gastric juice, which your stomach's lining secretes to break down your meals. Gastric juice, which consists of hydrochloric acid and an enzyme, pepsin, which breaks down protein, can digest any living tissue, including your stomach and duodenum. Normally, both your stomach and duodenum are bathed constantly in gastric acid. But protective mechanisms, including the work of prostaglandins, which govern secretion of mucus from your stomach lining, and your food and saliva's ability to dilute acid, prevent your stomach from digesting itself.

In the past few years, medical thinking about peptic ulcers has changed dramatically: Doctors used to think that having ulcers meant that you produced too much gastric acid. Some people with duodenal ulcers do secrete abnormal amounts of acid, but as many as half do not. And in most cases of gastric or stomach ulcers, acid is normal or even reduced. Now researchers recognize that the causes are more complex and may include a failure of your stomach's cytoprotection. Other contributing factors may be smoking, alcohol, family predisposition, emotional stress and even bacterial infection or the use of common pain-killing medications such as aspirin.

Peptic ulcers are chronic; they may recur at any time. Ulcers are rarely a prelude to cancer, but some ulcers, especially gastric ulcers, are an erosion of the stomach due to cancer. Even if ulcers are not cancerous, they can be very dangerous. An untreated ulcer can cause intestinal obstruction or rapid bleeding into your intestinal tract, which can be fatal. And like a ruptured appendix, an ulcer that erodes all the way through the wall of your stomach or duodenum can cause peritonitis. If you have an ulcer and any of these complications set in, you may need surgery. Thankfully, because of new drugs, ulcer surgery has become relatively rare. Certainly there are some steps you can take to avoid such a dire solution to ulcers.

Fueling an ulcer's fire

The first sign of an ulcer may be a good deal of belching and bloating, so that you may think you have a bad case of gas pains. But the pain becomes sharp and constant, and sometimes feels like a "stitch" somewhere between your navel and the base of your breastbone. It may be particularly gnawing between meals or when your stomach is empty; you feel some relief after you eat something—but perplexingly, the reverse also can be true. Even after an ulcer heals you may feel pain in that portion of your gut if you eat or drink anything that irritates your stomach lining. One woman in her early 30s who has had a duodenal ulcer felt this "weak link" act up when she had morning sickness during pregnancy and whenever she drank carbonated beverages, even decaffeinated ones, or alcohol on an empty stomach.

As far as we know, moderate consumption of alcohol and caffeine doesn't cause ulcers. But alcohol and caffeine do stimulate acid secretion in your stomach, as does decaffeinated coffee. Caffeine also blocks production of prostaglandins, weakening your stomach's cytoprotection. So any of these ingredients of popular beverages can exacerbate an ulcer you already have. Surprisingly, so can milk, which used to be a mainstay of ulcer patients' diets. Initially, milk does neutralize stomach acid—but then, acting on the rebound, it prompts the production of even more. Stress may not cause ulcers as frequently as most doctors once thought, but it can increase pain or flare-ups. One Australian study found that duodenal ulcers frequently recur when patients go through marital separation or divorce. Genes and gender also may contribute to ulcers: You're three times as likely to get an ulcer if any of your relatives have them. Men get twice as many duodenal ulcers, while the rate of gastric ulcers is about the same in both sexes.

Smoking—even chewing nicotine gum—certainly does cause ulcers. In fact, smoking not only doubles your risk of coming down with an ulcer but slows its healing and contributes to recurrence. If you quit smoking and take no medication at all, your ulcer will heal more quickly than if you down drugs conscientiously but continue to smoke. Another sure cause of ulcers is regular use of aspirin and other nonsteroidal anti-inflammatory medications such as Motrin or Advil. Arthritis patients are particularly apt to take these drugs habitually over a long period of time. But aspirin and similar medications inhibit your stomach's production of prostaglandins, which are the key substances for cytoprotection. Prostaglandins govern mucus secretion and other mechanisms that protect your stomach's mucosal lining from injury by gastric juice, as well as other chemicals. If you stop taking the offending medications, your ulcers usually clear up. A new ulcer drug, Cytotec, offers your stomach cytoprotection even if you're obliged to take aspirin or other pain medications. But Cytotec has some side effects, ranging from the annoying (diarrhea) to the downright dangerous (miscarriages).

Many medications prescribed for "acid conditions" actually can add to your misery. Many doctors and patients, assuming that too much stomach acid equals ulcers, rely on antacids. This can make as much sense as putting out a fire while simultaneously relighting it. One popular antacid, Alka-Seltzer, contains aspirin, so large doses can actually cause ulcers. Another common antacid ingredient, calcium carbonate, found in Tums, can constipate you. And

three or four hours after you take it, calcium carbonate stimulates increased gastric secretion.

Specific ulcer drugs, such as best-selling Zantac and Tagamet, seem to suppress symptoms without clearing up the problem. Most patients who take them relapse within two years. These drugs work by blocking production of stomach acid. That may relieve your pain dramatically but can be harmful in the long run. A certain level of acid secretion is necessary to digest proteins properly and to absorb vitamins and minerals. So if you're taking an ulcer drug, you may be setting the stage for malabsorption. Stomach acid also protects you by killing fungi, bacteria and viruses that you cannot help ingesting along with your food. Without gastric acid's protection, you may be much more susceptible to food poisoning, parasites and other gastrointestinal afflictions—including ulcers.

Can you catch an ulcer?

According to recent medical research, one reason ulcers tend to run in families is that they could be the result of infection with a particular bacterium, Campylobacter pylori, which certainly does cause gastritis. Investigators have noticed that most ulcers occur in the presence of gastric secretion that most people can tolerate easily. And many ulcers heal without any decrease in gastric acid output—a sure sign that gastric secretions are not the primary cause of ulcers and that some other factor is at work.

Dr. Barry J. Marshall, an Australian researcher, is convinced that C. pylori is at the bottom of most cases of duodenal ulcers, as well as 70 percent of gastric ulcers and about half of all cases of dyspepsia without ulcers. Many of Dr. Marshall's patients infected with C. pylori started with gastritis that developed into dyspepsia or peptic ulcers. In 1984, Dr. Marshall tested his own hypothesis by downing a potion of C. pylori. Sure enough he got gastritis, a common precursor of ulcers. Marshall believes that the bacterium protects itself from hydrochloric acid and also frequently eludes detection by burrowing beneath your stomach's protective mucosa.

Marshall also has been testing his theory by screening ulcer patients' families for infection with C. pylori. His team has found that the bacterium often spreads to ulcer patients' spouses and family members. This transmission, not heredity, may explain why ulcers run in families. Detecting C. pylori involves analyzing a sample of the patient's stomach lining, which means that he or she has to undergo an endoscopy. I have used a blood test, which is somewhat less reliable, but also less invasive and less expensive.

At this point, there is no perfect antidote to C. pylori infection. Bismuth, a metallic element that is a main ingredient in Pepto-Bismol, does seem to kill off the bug. In Australia, one study reported that 92 percent of duodenal ulcer patients healed after being treated with an antibiotic and a drug containing bismuth. After a year, only 21 percent had relapsed. This is how Dr. Marshall cleared up his self-induced gastritis. Antibiotics can exacerbate gastrointestinal symptoms—so much so that the treatment may be worse than the disease. Marshall would like to find a better solution—perhaps a vaccine.

The Hoffman ulcer diet

For years, ulcer patients had to survive on a bland diet of boiled fish, rice, milk and cream. Now we know that while milk coats your stomach and may relieve your ulcer pain temporarily, it may retard your ulcer's healing. The calcium in milk can make you feel worse in the long run by stimulating the production of gastric acid. So can fried foods, citrus fruits, alcohol, caffeine in beverages or in chocolate, decaffeinated coffee and smoking. Tea seems to particularly stimulate production of gastric juice. In case your ulcer is due to a food intolerance or allergy, try ferreting offenders out with an elimination diet or ask a doctor who is knowledgeable about nutrition for the appropriate tests. And go through your medicine cabinet and throw out all aspirin and other nonsteroidal analgesics. Here are some other measures to consider:

- **Take things slower:** If you eat fast, bolting down your meals on the run, you're probably tense and thus more prone to indigestion. Try slowing down at the table—and in life in general: your response to stress can make a big difference in how quickly ulcers heal. One particular stress management technique, hypnotherapy, has helped 50 percent of patients suffering from duodenal ulcers.
- **Chili medicine:** The old bland regimen that ulcer patients had to follow precluded spices such as chili pepper, black pepper, mustard, cloves and paprika. But recent studies in Texas and India indicate that this restriction may not always be necessary and could be counterproductive. The Texas study found that eating jalapeno peppers did not harm gastric mucosa—even when ground peppers were placed directly in patients' stomachs! In the India study, 50 duodenal ulcer patients were fed a diet that included a gram of red chili powder (cayenne pepper) added to each meal. The researchers were trying to approximate the average person's daily intake of spices. Patients who ate chili powder healed just as quickly as patients who got no spice. Although hot peppers are very popular throughout India, ulcers are no more common than in other countries. If ulcers are indeed the result of a bacterial infection, then spices may confer some protection because they stimulate production of gastric juice, which fights bacteria. So unless you find spices irritate your gut, there's no need to cut them out while your ulcer heals.
- **Fiber heals:** A high-fiber diet (high in unrefined grains, raw non-acidic fruit and vegetables) seems to heal ulcerous and pre-ulcerous conditions much better than the old-fashioned bland diet. You can keep one part of the old diet, rice—although brown rice is better because it contains more fiber. Ulcer patients who go on a high-fiber diet find that their ulcers recur half as frequently. Barley, oats and kudzu, a starch made from a root popular in Japanese and macrobiotic cooking, are especially helpful because they are mucilaginous: they coat and soothe your stomach lining. A high-fiber diet also will speed transit time, reducing gastritis. Avoid abrasive roughage such as nuts, popcorn and seeds.
- **Cut down on steak:** Animal proteins are high in arachidonic acid, a

fatty acid used in your body's production of inflammatory prostaglandins. (Helpful prostaglandins derived from fish oil have an opposite, anti-inflammatory effect.) If you can, try a vegetarian diet, at least temporarily: It will help reduce inflammation, as it does in other conditions such as rheumatoid arthritis.

- **Choose cabbage juice:** If you down about a quart of cabbage juice daily, studies have found, your ulcer will heal more rapidly. Cabbage juice is high in substances that protect your gut's mucous-membrane lining, including L-glutamine, an amino acid, and gefarnate, which stimulates the secretion of mucus from your stomach's lining. You can make your own cabbage juice in a juicer or grinder. But since cabbage's ulcer-fighting powers vary greatly, depending on growing conditions, choose only fresh green cabbages; the best ones are spring and summer cabbages. Celery juice also contains factors that help heal ulcers.
- **Drink plenty of water:** I've described water's beneficial effect on digestion in general. Plenty of water—especially cold water, which feels soothing—seems to be particularly helpful if you have ulcers. An Iranian doctor who was detained in jail for two and a half years treated more than 3,000 prisoners who had ulcer symptoms from the stress of incarceration and bad treatment at the hands of their jailers. The doctor found that, in most cases, a glass of water relieved ulcer pains within three to eight minutes. Patients with particularly severe pain sometimes required two glasses. For the duration of the experiment, patients drank a glass of water a half-hour before and two and a half hours after each meal to prevent recurrences. Water was all these patients got; antacids or other ulcer medications were not available and didn't seem necessary.
- **Prefer plantains:** Unripe plantain bananas, a folk remedy for ulcers that can be taken in the form of dried extract, counteract the ulcerous effects of aspirin and help heal ulcers you already have. Plantains contain a substance that stimulates healing of gastric mucosa.
- **Stock up on vitamins:** If you have an ulcer, you also may have signs of vitamin or mineral deficiency: perhaps your night vision has deteriorated or you have sudden cramps in your legs in the middle of the night. Vitamins A, B6 and E and folic acid also help maintain and repair your gut's mucosal barrier. Zinc supplements have healed ulcers, probably because zinc is necessary for vitamin A stored in your liver to be released into your bloodstream. Zinc also helps restore skin cell growth, though it can be irritating if you take it when your stomach is empty.
- When you were small, your mother may have given you a few drops of cod liver oil, an important source of vitamins A and D. Today, we know that fish oil can help prevent and heal ulcers because it contains omega-3 fatty acids, which fight inflammation. Beans, nuts and oil from fish common in northern waters, such as mackerel, salmon and cod, are especially rich in omega-3. You can help protect your gut from ulcers by taking these essential fatty acids in the form of Maxepa supplements, prepared from fish oil.

- **Try licorice:** This time-honored remedy for ulcers is an ingredient in more than half of Chinese medicine’s herbal formulas. Licorice tastes good—it’s fifty times sweeter than sugar yet contains no calories —but it has to be used carefully because it can elevate blood pressure. A new product, deglycyrrhizinated licorice (DGL), seems safer because it has eliminated the ingredients that affect blood pressure. In one study, DGL healed ulcers faster than Tagamet or Zantac.
- **Choose herb teas and other natural remedies:** Comfrey tea used to be a traditional remedy for ulcers. But because it can become toxic, you should drink it for only a limited period of time. One alternative is slippery elm, a mucilaginous herb that can provide a soothing coating for your stomach lining. Aloe vera also is very healing. Many good cooks keep an aloe vera plant on their kitchen window sill to treat minor burns. When you break off part of a leaf, soothing aloe vera gel oozes out. If you buy aloe vera, make sure you get a gel, its natural form; bottled aloe vera juice is almost all water, sometimes with irritating acidic additives! The young woman with a duodenal ulcer whom I mentioned earlier was given Tagamet and told that her ulcer would heal in three months. On the advice of a nutritionally oriented doctor, she resorted to aloe vera, extra vitamins and chamomile tea, which soothes spasms and inflammation; her ulcer cleared in six weeks.