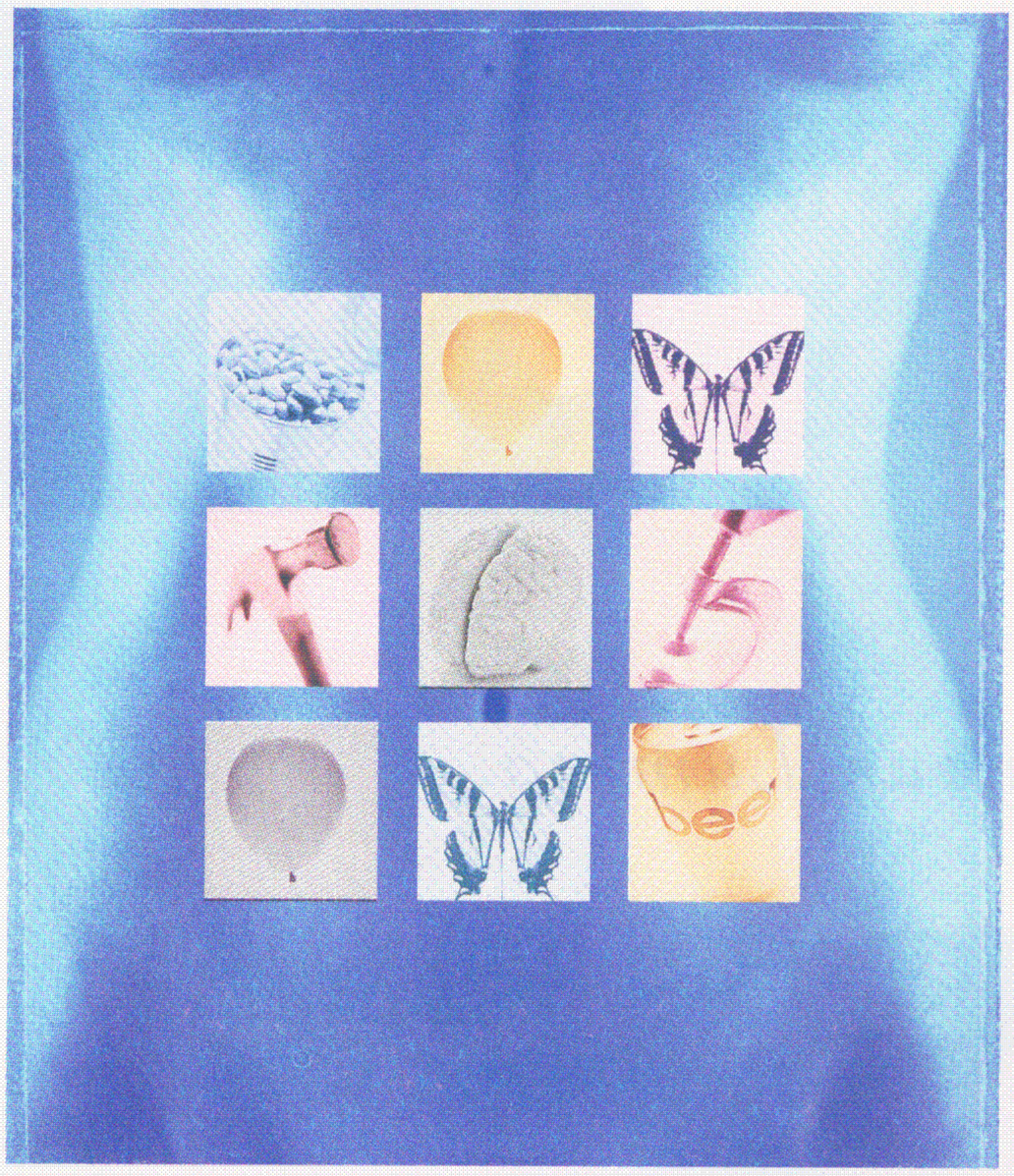
gut reactions

Does a holiday feast leave you with heartburn—or more embarrassing signs of digestive distress? There's no need to suffer anymore

By Kathleen McAuliffe



The rumblings of one's digestive tract are hardly a topic for polite conversation. Yet this tract's unspeakable ailments prompt more than fifty million visits to doctors each year. And the real toll in suffering is no doubt much higher, for a sense of decorum inhibits many people from discussing gastric complaints, even with their doctors.

If they did talk about it, they'd discover that an irritable gut can often be placated by changes in diet, exercise and over-the-counter (OTC) remedies—many only newly available. However, be advised: If you suffer from acute or prolonged gastric pain, notice blood in vomit or stool, or observe any other change in digestive or bowel function that lasts more than two weeks, see your doctor immediately.

Heartburn

A staggering twenty-five million Americans suffer from heartburn each day. Often experienced as a searing sensation behind the breastbone, heartburn occurs when acidic stomach juices flow back up onto the sensitive tissues of the esophagus—a condition known as acid reflux. What can help? Doctors advocate eating smaller meals at more frequent intervals, avoiding tight-fitting clothes and passing up foods that commonly trigger acid reflux, notably onions, tomato sauce, fried and fatty foods, peppermint, chocolate, citrus fruits, alcohol and coffee.

Because gravity aids in moving food through the digestive tract, people prone to heartburn should refrain from lying down for two to three hours after eating. Quitting smoking and losing weight can also ease symptoms. Those with occasional heartburn can take powerful new OTC drugs called H_2 blockers, sold under the brand names Tagamet HB, Zantac 75, Pepcid AC and Axid AR, which dramatically inhibit acid secretion in the stomach, providing relief for up to eight hours.

The main drawback to these products is that many people use them incorrectly, according to Harris Clearfield, M.D., director of gastroenterology at Allegheny University Hospital, Center City, in Philadelphia. "You should not reach for one of these drugs during an acute attack," he stresses. "They take thirty or forty minutes to work; they're to be used when you anticipate trouble—say, before you sit down to a big meal." When fast relief is required, Clearfield says, the antacids of yesterday are still the best choice. (There is also a new OTC dietary supplement called Prelief that instantly neutralizes the acid content of offending foods; it can be taken in tablet form or added directly to food.)

Though widely viewed as safe and effective, antacids and H_2 blockers should not be used more than two to three times a week. Anyone requiring such frequent doses, gastroenterologists warn, needs to be medically evaluated. Heartburn can indicate a more serious problem, like esophagitis. And constant acid reflux may need to be treated with more powerful prescription drugs. Indeed, recent studies show that chronic reflux can burn the esophageal lining, causing scarring that leads to difficulty in swallowing, and may even *(continued on page 86)*

ERIC TUCKER

Continued from page 82

increase the risk of developing esophageal cancer. Also, a small study in England has found that acid in the esophagus can reduce coronary blood flow in patients with coronary artery disease. (Note: Symptoms mistakenly attributed to heartburn may occasionally be warning signs of a heart attack. See your doctor if you feel pressure, fullness or radiating chest pain.)

"Burpulence"

We all produce gas—typically, one to three pints a day—that must be expelled either by belching or by passing wind. The main source of gas in the upper gastrointestinal (GI) tract is air swallowed while eating and drinking. What is not expelled by burping passes into the lower GI tract. There, more gas may accumulate, produced by naturally occurring bacteria that break down food in the colon. Foods that typically require additional processing by these bacteria—and hence are common causes of gas—include beans, cabbage, broccoli, Brussels sprouts and bran. Milk products can also produce bloating (a symptom of gas buildup in the intestine), particularly for the thirty million to fifty million Americans who are deficient in an enzyme needed to break down lactose, a natural sugar found in milk.

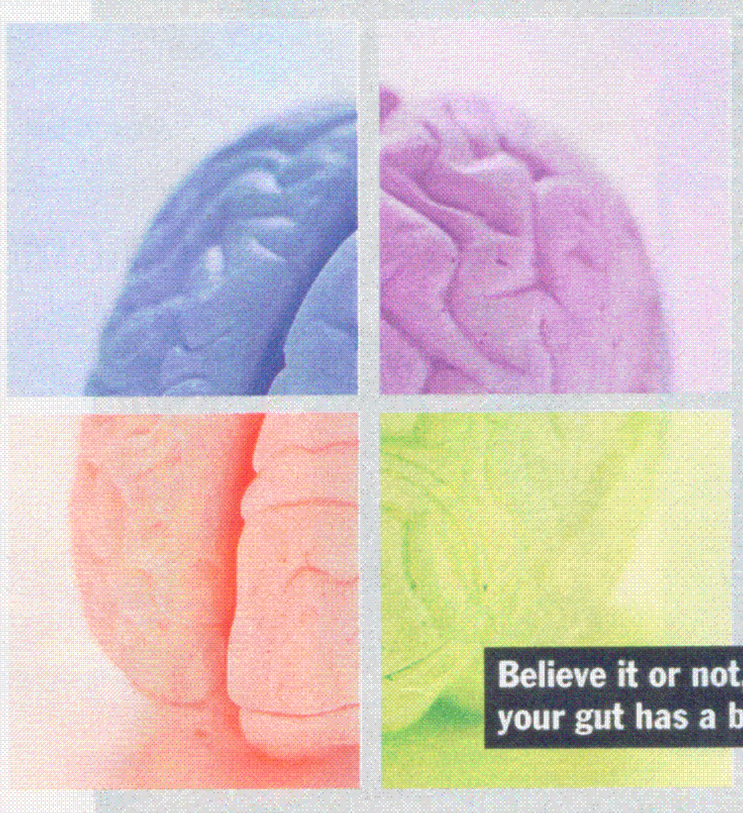
To prevent excessive burping, doctors recommend avoiding these things: carbonated beverages, chewing gum, smoking, eating too quickly and wearing loose-fitting dentures, all of which can increase the likelihood of swallowing air. To combat gas in the upper GI tract, doctors say, antacids that contain simethicone may be worth a try.

Frequent flatulence is most easily handled by avoiding offending foods. If flatulence still persists, try activated charcoal tablets, which absorb gas. Also available without a prescription are digestive aids such as lactase, which facilitates *(continued)*

How Smart Is Your Stomach?

Why are kids who are unhappy at school prone to bellyaches? How come you get butterflies in your stomach before job interviews? Because, scientists now believe, there is a brain in your gut.

Jackie D. Wood, Ph.D., chairman of the physiology department at Ohio State University College of Medicine, in Columbus, calls this structure "the little brain," to distinguish it from the one in your head. But the truth is, it's not so small. The brain in the gut (or enteric nervous system, as scientists call it)



Believe it or not, your gut has a brain

contains over one hundred million neurons—as many as the spinal cord. And this complex network of nerves lines the walls of the digestive tract from the esophagus all the way down to the colon.

The little brain is connected to the "big brain" by the vagus nerves, a bundle of nerve fibers running from the GI tract to the head. And, to the fascination of researchers, virtually all the classes of neurotransmitters found in the brain are also present in the gut. "The more we learn about the enteric nervous system, the more similar it seems to the brain," says Michael Gershon, M.D., chairman of anatomy and cell biology at Columbia University College of Physicians and Surgeons, in New York City.

Not surprisingly, one nervous system may mirror the response of the other. When the central brain is emotionally upset, the GI system gets upset, too.

Stress can cause your brain to release chemicals that fool your gut into believing you are physically ill. That's why when you're anxious, you feel butterflies in your stomach, or—when stress is greater—you get diarrhea or cramping. Similarly, what revolts the brain can revolt the gut. "At the sight of something repulsive," explains Wood, "the brain sends a message via the vagus nerve that tells the upper intestine to reverse propulsion of food, which is what makes you vomit."

Doctors have long wondered why people afflicted with gastrointestinal problems, especially problems with no known organic causes, like irritable bowel syndrome, are prone to disturbed sleep. "Now we have a better idea of what may be going on," say Kevin Olden, M.D., a gastroenterologist and psychiatrist at the University of California, in San Francisco. "Your stomach can be upset without your even knowing it—and a dysfunctional gut can have an impact on natural sleep patterns."

Like the big brain, the little brain is rich in receptor sites for mood-regulating chemicals such as endorphins and serotonin. It is also rich in receptor sites for drugs like opiates. So when we take a psychoactive drug, the gut is a frequent target of side effects. Some antidepressants and opiate-based painkillers, for example, are notorious for causing constipation. Now, seeking to turn a disadvantage into a strength, researchers hope to develop psychoactive agents into new therapies for gastrointestinal disturbances. "The theory is," explains Olden, "if a drug does something to the brain, it does something in the gut and might be used to the patient's favor."

Could the enteric nervous system explain "gut feelings"? Absolutely, say experts. As Wood observes, the primitive parts of the brain that respond to fear communicate closely with the gut. That means we may get a visceral reaction to a threat before the higher cortex can fully puzzle out what's going on. So, "pay attention to your gut," Wood advises. "It may know something before you do." —K.M.

ERIC TUCKER

digestion of milk products, and Beano, which helps break down gas-producing sugars in beans and vegetables. In addition, supermarkets now sell an assortment of lactose-reduced dairy products. But note that chronic flatulence may be a sign of an undiagnosed digestive ailment such as irritable-bowel syndrome (IBS).

Constipation

Americans widely view anything less than a bowel movement a day as cause for concern. Small wonder that our annual spending on laxatives is a whopping $725 million. In fact, the number of bowel movements considered normal ranges from three a day to three a week. Most people whose movements become uncomfortably irregular can get relief simply by exercising more, eating more vegetables, fruits and whole grains (thereby increasing dietary fiber), and drinking plenty of water and fruit juices to make bowel movements softer. But do not ignore the urge to go to the bathroom. When nature's call goes unheeded, nature stops calling.

Only if changes in diet and exercise fail to relieve constipation do doctors recommend laxatives. The safest (because they're slower-acting and milder) are fiber supplements sold under such brand names as Metamucil and Citrucel. For a more severe problem, a doctor may recommend stronger oral remedies. These include drugs that stimulate contractions in the intestines (Ex-Lax, Correctol, Dulcolax), stool softeners (Colace, Dialose, Surfak) or a saline laxative like Milk of Magnesia.

If, however, constipation is chronic or severe, see a doctor: Serious constipation could be a sign of colon disease, diabetes or a thyroid disorder.

Ulcers

Not long ago, doctors blamed ulcers on coffee, spicy foods and too much stress. Now they believe that the leading culprit is a tenacious bacterium rugged enough to thrive in the hostile acidity of the stomach. Called *Helicobacter pylori* (H. pylori), it invades the mucus of the stomach lining, causing inflammation and a relentless, gnawing pain in the upper belly. (The bacterium is thought to be transmitted through the fecal-oral route, spread by unwashed hands.) In a minority of cases, however, stress or nonsteroidal anti-inflammatory drugs such as aspirin or ibuprofen may be sufficient to cause an ulcer; at the very least, these drugs make the stomach lining more vulnerable.

The first wave of attack against ulcers used to be reducing stomach acidity with H_2 blockers long enough for the sore to heal. But in 30 to 90 percent of cases, the ulcer returned within a year.

Now, with the discovery of H. pylori, the medical profession is adopting a new strategy: First, test for the microbe, using either endoscopy (inserting a flexible probe down the throat) or a new noninvasive breath test, manufactured by Meretek Inc., of Nashville, and approved by the Food and Drug Administration (FDA) last September. If the microbe is detected, prescribe an antibacterial regimen. One of the latest FDA-approved treatments consists of the antibiotic Biaxin combined with the acid suppressant Prilosec. "It's a lot more expensive than the older antibacterial regimen," reports Kenneth DeVault, M.D., a gastroenterologist at the Mayo Clinic, in Jacksonville, Florida. "But it may be worth the cost. Patients' compliance is far higher with the new treatment; people find it much easier to tolerate."

Many doctors suspect that stress plays an important role in chronic stomach ailments

The Irritable Bowel

Symptoms of the perplexing digestive ailment called irritable-bowel syndrome include intestinal cramping, gassiness, bloating and change in bowel function (either constipation, diarrhea or a mixture of both). Yet when the colons of such patients are examined, doctors can find nothing wrong.

IBS sufferers seem to be extrasensitive to the buildup of ordinary gas pressure, and their colons undergo stronger digestive contractions (or spasms) in response to the passage of food through the gut. No one knows why. High-fat meals, chocolate, milk products or large amounts of alcohol seem to exacerbate symptoms. Many doctors also suspect that stress may play an important role, and a number of studies have shown that patients with IBS are more likely to suffer from anxiety, depression and other psychiatric disorders.

There is no standard treatment for IBS. If symptoms are severe, doctors will frequently order diagnostic tests such as X rays to rule out an organic disease like inflammatory-bowel disease. Once a diagnosis of IBS is reached, doctors will often recommend dietary changes. For many individuals, eating high-fiber, low-fat meals may reduce contractions of the colon. Sometimes doctors also prescribe anti-spasmodic drugs or tranquilizers, which may relieve symptoms. And if psychological distress is believed to be a major trigger, physicians may suggest counseling.

Ulcerative colitis and Crohn's disease, two related conditions more generally described as inflammatory-bowel disease, are rarer than the other maladies explained in this article. Both may increase the risk of colorectal cancer. Ulcerative colitis causes bleeding sores and inflammation of the lining of the rectum and the colon. With Crohn's disease, the inflammation extends into the deeper layers of the wall of the small intestine. The two diseases produce similar symptoms, including diarrhea, rectal bleeding and abdominal pain. Both are treated with anti-inflammatory drugs like sulfasalazine and, for more serious outbreaks, steroids. Sometimes surgery is required. ●

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