

# Preventing Esophageal CANCER

**Maalox, Mylanta, Pepto-Bismol, Rolaids. They're everyday medications for 600 million Americans who have gastroesophageal reflux disease (GERD).**

**But for many chronic heartburn sufferers,** over-the-counter antacids aren't enough. Without proper treatment, they may develop problems in the esophagus—the tube that connects the throat to the stomach.

**Barrett's esophagus.** After years of trying to cope with GERD, about 10 percent of people with the condition develop a disorder called Barrett's esophagus. This precancerous condition occurs when the esophagus develops cells similar to those in the intestine in an effort to protect itself against the constant backwash of stomach acid caused by GERD. These cellular changes increase a person's risk of developing esophageal cancer by 30- to 125-fold.

## Esophageal cancer moves very rapidly if not detected early.

Patients with Barrett's have only a 5 percent chance of developing esophageal cancer within 10 years. But this type of cancer moves very rapidly if not detected early—and Barrett's is a red flag that it may be a future threat. "Each year, there are about 10,000 new cases of adenocarcinoma, a form of esophageal cancer related exclusively to Barrett's," says **Dr. Kenneth Chang**, medical director of the H.H. Chao Comprehensive Digestive Disease Center (CDDC) at UCI Medical Center. For this reason, the early detection of Barrett's is critical.

To determine if this precancerous condition is present, CDDC specialists at UCI use an endoscope, a flexible tube equipped with a camera, to search for telltale changes in the esophagus. During the procedure, doctors remove samples of suspicious tissue. The specimens are examined under a microscope to confirm the presence of Barrett's

and to identify any precancerous tissue changes—a condition known as dysplasia.

For Barrett's patients without dysplasia, the goal is to prevent further damage by eliminating GERD. Treatments range from intensive antacid therapy to a surgical procedure called fundoplication.



"This operation strengthens the lower esophageal sphincter—the muscle between the esophagus and stomach that normally prevents stomach acid from flowing backwards to cause GERD," says **Dr. Ninh Nguyen**, a CDDC surgeon. Requiring only five tiny stitches, fundoplication is performed during a minimally invasive procedure using a laparoscope. It involves wrapping the top of the stomach around the esophagus and sewing it into place. "About 90 percent of those who undergo this procedure are free of GERD," says Nguyen. The surgery may help patients with early-stage dysplasia as well.

There are also several nonsurgical treatments to eradicate precancerous cells in the esophagus. The newest is radiofrequency ablation. This endoscopic procedure destroys precancerous cells in seconds without the need for injections or incisions. It's delivered through a balloon catheter or special "cap" developed

by Chang and others, which is mounted on the tip of the endoscope.

### **Photodynamic therapy.**

Another nonsurgical treatment is photodynamic therapy (PDT). During this procedure, the patient is injected with a light-sensitive drug called Photofrin, which targets precancerous cells. Two days later, laser light is directed through an endoscope at the wall of the esophagus. When the laser beam hits the abnormal cells harboring the drug, it destroys them by activating the Photofrin.

Doctors may also use a treatment known as endoscopic mucosal resection. It involves injecting a saline solution beneath the abnormal tissue in the esophagus. This causes a blister to form under the precancerous cells. Doctors can then shave away the abnormal layer using a special cutting wire.

For Barrett's patients with advanced dysplasia, removal of the esophagus may be the only answer. "Once people reach this stage, about half of them eventually develop invasive cancer," says Nguyen. "But with early surgery, there's a better than 95 percent cure rate." In most cases, the esophagus can be removed laparoscopically—a feat that was impossible only a short time ago. Nguyen also helped pioneer a minimally invasive technique to remove only the diseased portion of the esophagus.

For referral to a specialist in GERD and Barrett's esophagus, call 1-888-717-GIMD.

**Toll free 1-877-UCI-DOCS**