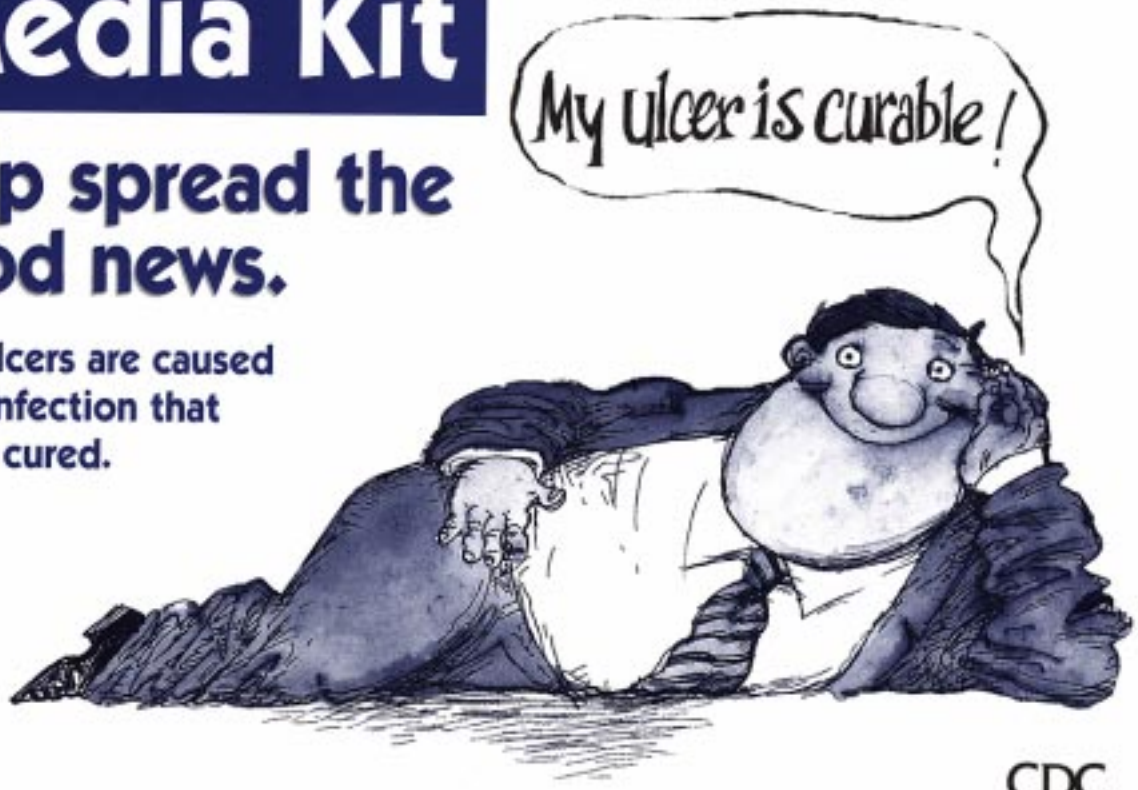
Media Kit

Help spread the good news.

Most ulcers are caused by an infection that can be cured.



CDC

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30333

October 23, 1997

Dear Member of the Media:

Given the option of merely treating symptoms of an illness and living with pain for years, or curing it for good for nearly 10 times less money, the answer seems clear. But many of the nation's 25 million ulcer sufferers and their health care providers are still unaware that ulcers are caused by an infection, and that antibiotics are the cure.

Until recently, we thought ulcers were caused by spicy foods, acid and stress. We now know that most ulcers are caused by a bacterium called *Helicobacter pylori (H. pylori)*. This means they can be cured with antibiotics. Antibiotic treatment takes one or two weeks and costs much less than treating an ulcer over a lifetime with acid blockers. Although using an acid blocker may make the patient feel better, the ulcer may come back.

Despite this encouraging news that ulcers are curable, they are still frequently treated as a chronic condition, managed with acid blocking medication and lifestyle changes to eliminate stress and spicy foods. The Centers for Disease Control and Prevention (CDC) is sharing this good news with millions of ulcer sufferers through a national education campaign on *H. pylori*. This educational campaign, which is a collaborative effort with representatives in the health care field including other government agencies, academia, and pharmaceutical companies, will begin this month during National Infection Control Week.

Enclosed please find background information on *H. pylori* and ulcers. If you need more information, please call Barbara Govert at (404) 639-4740 or our toll-free information line for media, physicians, and consumers, 1-888-My-Ulcer.

Sincerely,

Mitchell L. Cohen

Mitchell L. Cohen, M.D.
Director
Division of Bacterial and Mycotic Diseases
National Center for Infectious Diseases
Centers for Disease Control and Prevention

CDC
October 24, 1997 / Vol. 46 / No. 42

MMWR™
MORBIDITY AND MORTALITY WEEKLY REPORT

Knowledge About Causes of Peptic Ulcer Disease — United States, March–April 1997

An estimated 25 million persons in the United States have had peptic ulcer disease (PUD) during their lifetimes (*1*). A high proportion (at least 90%) of PUD cases are caused by infection with *Helicobacter pylori*—an association first reported in 1983 (*2,3*). However, in 1995, most (72%) of the general public was unaware of this association (*4*). To increase awareness among the general public and health-care providers about the relation between *H. pylori* infection and PUD, CDC, in collaboration with other federal agencies, academic institutions, and partners from private industry, has developed an awareness and education campaign. The campaign is being initiated during October 19–25, 1997, in conjunction with National Infection Control Week. In preparation for the education campaign, during early 1997 a population-based survey was conducted to provide more current estimates of knowledge about the causes of PUD. This report summarizes the survey findings and describes the campaign; the findings indicate that only 27% of the general public is aware of the association between *H. pylori* infection and PUD.

Questions about the causes of PUD were included as part of the Health Styles Supplemental Survey, which was administered during March–April 1997 (*5*). Questionnaires were mailed to a representative sample of 3064 U.S. adults aged ≥18 years; of these, 2512 (82%) persons completed the questionnaire. Respondents read statements about the causes of PUD and were asked whether they agreed or disagreed with each statement; therefore, respondents could identify more than one cause. To compensate for differential nonresponse rates in various demographic categories, data were weighted to the 1992 distribution of the U.S. population by age, sex, race/ethnicity, income level, and region.

Approximately 60% (95% confidence interval [CI]=58%–62%) of respondents believed that ulcers were caused by too much stress; 17% (95% CI=16%–18%), that eating spicy foods caused ulcers; and 27% (95% CI=25%–29%), that a bacterial infection caused ulcers. The belief that stress was the most likely cause was highest among persons aged 18–24 years (78% [95% CI=65%–81%]) and among persons with annual household incomes of <$15,000 (65% [95% CI=60%–70%]). Similarly, the belief that spicy food was the most common cause of ulcers was highest among persons aged 18–24 years (33% [95% CI=18%–48%]) and among persons with annual household incomes of <$15,000 (26% [95% CI=22%–30%]). The proportion of respondents who

Peptic Ulcer Disease — Continued

believed that PUD was caused by an infection increased with increasing age, from 12% (95% CI=2%–22%) among persons aged 18–24 years to 33% (95% CI=30%–36%) among persons aged ≥55 years.

Reported by: Porter Novelli, Washington, DC. Foodborne and Diarrheal Diseases Br, Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases, CDC.

Editorial Note: PUD is the primary reported cause of death in approximately 6500 persons in the United States each year (*1*). The estimated direct costs of patient care and indirect costs caused by work and productivity loss for PUD are $6 billion annually (*6*). Before 1983, the major causes of PUD were considered to be excess acid, diet, smoking, and stress, and most patients with recurrent PUD were treated with maintenance doses of acid-reducing medications. With the discovery of the association between *H. pylori* infection and PUD, appropriate antibiotic regimens can now successfully eradicate gastrointestinal infection with this organism and permanently cure ulcers in a high proportion of patients.

In 1994, a National Institutes of Health consensus development conference panel concluded that patients with ulcers caused by *H. pylori* infection require treatment with antimicrobial agents (*7*). Therapy consists of a combination of effective antibiotics for 7–14 days; cure rates for established therapies range from approximately 70% to 90%, depending on the specific regimen (*8*). Five *H. pylori* treatment regimens have been approved by the Food and Drug Administration.

The development of effective treatment has enabled a new public health approach to PUD, which was previously considered a chronic disease. Further research of this emerging infectious disease is needed, including modes of transmission and factors associated with the development of asymptomatic illness. Even though effective primary prevention strategies remain to be defined, appropriate diagnosis and antibiotic treatment can substantially reduce the burden of PUD. This secondary prevention strategy depends on awareness that PUD is caused by a curable infection.

In 1994 and 1996, national surveys of primary-care physicians and gastroenterologists about knowledge of the association between *H. pylori* infection and PUD indicated that approximately 90% of these physicians identified *H. pylori* infection as the primary cause of PUD (*9,10*). However, primary-care physicians reported treating approximately 50% of patients with first-time ulcer symptoms with antisecretory agents without testing for *H. pylori*; in comparison, gastroenterologists reported treating approximately 30% of patients with first-time ulcer symptoms with these agents (T. Breuer, Baylor College of Medicine, personal communication, 1996). These findings suggest that further education of the medical community is needed.

The findings of the survey described in this report are consistent with those of the population-based survey in 1995 (*4*) and confirm limited awareness among the general population about *H. pylori* infection as a treatable cause of PUD. CDC, in collaboration with partner organizations, has developed a national campaign to increase awareness among and educate the general public and the medical community about the association between *H. pylori* infection and PUD. This month, public service announcements for television and radio are being released in both English and Spanish. In addition, consumer education brochures and information about treatment strate-

Peptic Ulcer Disease — Continued

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Economic Impact of Ulcers

Overall Ulcer Disease Costs[1]

In 1989, the most recent year for which data are available, ulcer disease cost nearly $6 billion in the United States in direct costs of treatment and indirect costs due to work and productivity loss.

- Hospitalization (physician's fee not included): $2.66 billion
- Out Patient Care: $1.62 billion
- Work Loss: $1.37 billion

Treatment Cost and Duration[2]

Research shows that curing an ulcer takes less time and costs less than one-tenth the amount of treating it over a lifetime:

- The most extreme treatment, vagotomy or ulcer surgery, costs approximately $17,000 and requires 307 days of treatment over a 15-year period.

- Maintenance therapy with medications to block acid production costs approximately $11,000 and requires 187 days of treatment over 15 years. This approach merely treats the symptoms rather than curing the ulcer.

- Antibiotic therapy takes 17 days. Total direct and indirect costs associated with it are less than $1,000. In 90 percent of patients, the ulcer is cured and does not recur.

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Have a Stressful Job?
You Must Have an Ulcer...Right?

Which of the following people are most likely to have an ulcer? The answer, below, may surprise you.

Top 10 Most Stressful Jobs*	Top 10 Least Stressful Jobs*
1. Inner City High School Teacher	1. Forester
2. Police Officer	2. Bookbinder
3. Miner	3. Telephone Line Worker
4. Air Traffic Controller	4. Toolmaker
5. Medical Intern	5. Millwright
6. Stockbroker	6. Repairperson
7. Journalist	7. Civil Engineer
8. Customer Service/Complaint Worker	8. Therapist
9. Secretary	9. Natural Scientist
10. Waiter	10. Sales Representative

Did you guess that the inner city high school teacher's stomach would be riddled with ulcers not only from the stress of dealing with troubled teens, but also from the tacos in the lunchroom? And that the forester's calm environment would make his or her stomach acid-free and healthy? Surprise! ***All the workers on this list are just as likely as any others you can imagine to get an ulcer.***

While stress and diet can irritate an ulcer, they do not cause it. Ulcers are caused by the bacterium *H. pylori*, and can be cured with a one- or two-week course of antibiotics, even for people who have had ulcers for years.

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Ulcers Are A Curable Infection

Story Ideas

Many ulcer sufferers and doctors are still unaware that most ulcers are caused by a bacterial infection and can be cured.

The following story ideas can help you communicate this important information in a meaningful, attention-grabbing way.

Cure the infection, get rid of the ulcer.

When is an infection good news? When it's causing your ulcer and can be cured. The fact that most ulcers are caused by a bacterium called *Helicobacter pylori (H. pylori)* and can be cured with antibiotics knocks them from chronic condition status down to the level of strep throat and other infections. Diagnosis is easier, too. Doctors can use a simple blood or breath test to detect *H. pylori*. The Centers for Disease Control and Prevention (CDC) is launching a national education campaign and conducting research on transmission, monitoring changes in antimicrobial issues, and determining the least expensive way to cure ulcers.

How can you get rid of the pain in your stomach and save thousands of dollars? Get rid of your ulcer.

There's real money to be saved in curing infections instead of treating symptoms. Take ulcers, for example. Treating an ulcer often used to mean a lifetime of acid blocking medications and trips to the doctor, with lifetime treatment costs estimated at $11,000. Now, ulcer sufferers can cure their ulcers forever with a one- or two-week course of antibiotics for less than $1,000. *

This distinction between treatment (maintenance of a condition and therapy for symptoms) and cure (getting rid of an illness permanently) is important for consumers in today's managed care environment to understand. The new approach to curing ulcers rather than merely treating them is an excellent illustration of this distinction.

*Source: Sonnenberg A. and Everhart J.E. Health Impact of Peptic Ulcer in the United States. Am J. Gastroenterol 1997: 92: 614-620.

Don't blame your stressful life, your favorite enchilada, or your screaming kids for your ulcer.

The new science about what causes ulcers has destroyed all the old myths. People used to give up their favorite spicy foods, coffee, even quit stressful jobs to relieve the symptoms of ulcers. But we now know that while stress and spicy foods can irritate an ulcer, they do not cause it.

Ulcers are a curable infection, which is good news for the more than 25 million Americans (10 percent of the population) affected by peptic ulcers, up to 90 percent of which are caused by the bacterium *H. pylori*. While a healthy diet and stress management are good ideas for everyone, ulcer sufferers no longer have to make drastic lifestyle changes to live free of pain.

Ulcers are big business.

Since ulcers are now known to be a curable infection, lifetime purchases of acid blocking medications are no longer necessary for many ulcer sufferers. The economic potential in curing 25 million Americans' ulcers has generated new scientific research to better understand the infection, and pharmaceutical companies are rushing to develop new diagnostic and treatment products. In today's managed care health environment, the cost-benefits of curing rather than treating ulcers are obvious.

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Atlanta GA 30333

Members of the CDC *H. Pylori* Partnership

Duane T. Smoot, M.D.
Associate Professor
Dept. of Medicine, Howard University
Washington, D.C.
(202) 865-6632

Amnon Sonnenberg, M.D., M.S.
Professor
Medical University of New Mexico
Albuquerque, New Mexico
(505) 265-1711

Ben Gold, M.D.
Scientist, Foodborne and Diarrheal Diseases Branch, CDC
Assistant Professor of Pediatrics, Emory University School of Medicine
Atlanta, Georgia
Sarah Goodwin (Media Contact)
Emory Director of Media Relations
(404) 727-3366

Organization	**Contacts**
American Gastroenterological Association Bethesda, Maryland	Dianne Bach (Media Contact) Vice President Communications and Marketing (301) 941-2623 Michael Stolar, Ph.D. Senior Vice President
National Institute of Diabetes and Digestive and Kidney Diseases Bethesda, Maryland	Frank Hamilton, M.D., M.P.H. Chief Digestive Diseases Branch (301) 594-8877
Health Care Financing Administration Baltimore, Maryland	Mary Laureno (Media Contact) Director of Health Education (410) 786-6885 Cynthia Wark, M.S.N., R.N.

Organization	Contacts
American Digestive Health Foundation Bethesda, Maryland	Amy Manela (Media Contact) Manager Digestive Health Initiative Program (301) 941-2634 Barbara Mundy Vice President James W. Freston, M.D., Ph.D. Professor and Chair, Department of Medicine Vice Chair, Development University of Connecticut Health Center
Food and Drug Administration Rockville, Maryland	Linda Utrup, Ph.D. Expert Regulatory Review Microbiologist
Meretek Nashville, Tennessee	Karen Barzilay (Media Contact) BBK (617) 630-4477 ext. 237 Kerry Bush Chief Operating Officer Claudia Hitchcock Chief Executive Officer
Procter and Gamble Cincinnati, Ohio	Tom Millikin (Media Contact) Public Relations (513) 945-8250 Ed Burghard Marketing Director Pharmaceuticals, N.A. Cathy Farwick Account Manager

Astra Merck Wayne, Pennsylvania	Jim Coyne (Media Contact) Manager, Public Relations (610) 695-1656
	Mark Iwicki Product Manager
	Catherine Kernen Executive Director External Affairs
	Ed Long, Ph.D. Vice President of Congressional Relations
	Gary Neil, M.D. Executive Director of Medical Affairs
Abbott Laboratories Abbott Park, Illinois	Bob Rochelle Senior Product Manager (847) 935-0351

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CENTERS FOR DISEASE CONTROL
AND PREVENTION

FOR IMMEDIATE RELEASE
October 23, 1997

Contact: CDC Media Relations
Barbara Reynolds
(404) 639-3286

Ulcers: Infectious Disease That Can Be Cured
New CDC Campaign Educates Consumers, Physicians About
Ulcer-Causing Bug

If you're one of 25 million Americans with a peptic ulcer, you may be pleasantly surprised to learn that you could be suffering from a curable infection. According to the Centers for Disease Control and Prevention (CDC), nine out of every 10 ulcers are caused by a bacterial infection, which can be cured with appropriate antibiotics.

Many Americans suffering from ulcers do not know that ulcers are caused by an infection and can be cured with antibiotics. A new CDC report shows that most consumers are unaware of the link between ulcers and the bacterium *Helicobacter pylori* (*H. pylori*). In a national survey conducted in 1997, only 27 percent of respondents correctly thought that a bacterial infection caused ulcers. CDC also notes that about half of patients with first-time ulcer symptoms being treated by primary care physicians were not tested for *H. pylori*.

"Having this infection is actually good news for ulcer sufferers," says Mitch Cohen, M.D., CDC's Division of Bacterial and Mycotic Diseases director. "For years, we all thought ulcers were a chronic condition, caused by stress or spicy foods, and had to be endured for the rest of our lives. That isn't true. Most ulcers are caused by a bacterial infection, and even if

you've had an ulcer for years, you could still be cured. Doctors and ulcer sufferers can now change how they look at this condition and manage it as an infectious disease."

Still, old habits--and traditional beliefs--die hard. More than two years since an inter-governmental panel of scientists concluded that *H. pylori* was the cause of most ulcers, most consumers still believe that stress and spicy foods are the culprits. The CDC report shows that nearly 60 percent of those surveyed thought that ulcers were caused by too much stress in their lives and 17 percent thought eating spicy foods was the cause.

"Stress and spicy foods may worsen the symptoms and pain of an ulcer, but they are not the cause. There is a big difference between managing symptoms and actually curing an ulcer. The new treatment is a dramatic medical advance because eliminating *H. pylori* with antibiotics means that there is a greater than 90 percent chance that the ulcer can be cured for good," Cohen says.

Treating this infection could substantially ease the burden of ulcer disease on the individual ulcer patient and on the nation's health care costs--estimated at $6 billion annually. Without antibiotic therapy, more than half of ulcer patients experience a relapse within one year of treatment and could end up spending ten times more money over a lifetime on acid suppressing drugs, which temporarily relieve pain but don't cure the ulcer.

New methods for detecting *H. pylori* infection have also been recently developed. Many ulcer patients may need only a simple blood or breath test to detect *H. pylori*. Once detected, most *H. pylori* infections can be eradicated with a one- or two-week course of appropriate antibiotics.

While *H. pylori* is known to cause ulcers, much else about it remains a mystery. Scientists do not yet understand how the bacterium is spread, although infection rates are higher in older age groups, lower socio-economic groups, African-Americans and Hispanics. Also unclear is why *H. pylori*, a common bacterium present in two-thirds of the world's population, causes ulcers in some people and not in others.

CDC's research agenda includes learning how people become infected and what can be done to prevent infection. Until methods of transmission are known, CDC's advice is to always wash hands thoroughly, eat food that has been properly prepared and drink water from a source that is known to be clean and safe. CDC is also monitoring changes in antibiotic resistance among *H. pylori* strains in the United States to ensure that treatment strategies remain effective. CDC launches its *H. pylori* education campaign in October, during National Infection Control Week. The campaign includes public service announcements, consumer and physician brochures, and a toll-free number, 1-888-MY-ULCER, to provide more information.

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Frequently Asked Questions About *H. pylori*

What is *H. pylori?*

Helicobacter pylori (H. pylori) is a spiral-shaped bacterium that lives in or on the lining of the stomach. It causes more than 90 percent of ulcers, which are sores in the lining of the stomach or the duodenum (the first part of the small intestine).

Before 1982, when this bacterium was discovered, spicy food, acid, stress, and lifestyle were considered the major causes of ulcers. Since we now know that most ulcers are caused by an infection with *H. pylori*, they can be cured with appropriate antibiotics.

How common is *H. pylori?*

About two-thirds of the world's population is infected with *H. pylori*. In the United States, *H. pylori* is found more often in older adults, African-Americans, Hispanics, and lower socio-economic groups.

What illnesses can *H. pylori* cause?

Most people who are infected with *H. pylori* never have any symptoms or problems related to this infection; however, *H. pylori* can cause gastritis (inflammation of the lining of the stomach) or ulcers of the stomach or duodenum. About 25 million Americans suffer from ulcers.

What are the symptoms of ulcers?

The most common ulcer symptom is gnawing or burning pain in the abdomen between the breastbone and the navel. Commonly, the pain occurs when the stomach is empty, between meals and in the early morning hours, but it can also occur at other times of the day. It may last from minutes to hours and may be relieved by eating or taking antacids.

Less common symptoms include nausea, vomiting, and loss of appetite. Sometimes ulcers may bleed; if bleeding continues for a long time it may lead to anemia with weakness and fatigue. If bleeding is heavy, blood may appear in vomit or stool. Stool containing blood may appear dark red or black.

How is the infection diagnosed?

Doctors have several methods to test for *H. pylori* infection.

- **Blood tests** can determine if a person has been infected by measuring specific *H. pylori* antibodies.
- A **breath test** can determine if *H. pylori* is in the patient's stomach. In this test, the patient is given a harmless substance, urea with carbon, to drink. *H. pylori* breaks down this urea, and the carbon is absorbed into the bloodstream and lungs and then exhaled in the breath. By collecting this breath, the health care provider can measure the carbon and determine whether *H. pylori* is present.
- A doctor can also perform **endoscopy,** in which a small flexible instrument with a camera inside is inserted through the mouth into the esophagus, stomach, and duodenum to look for ulcers. During endoscopy, biopsy specimens (tissue samples) of the stomach lining can be obtained. Several tests can be performed on these tissue samples to determine if a patient is infected with *H. pylori*.

Should *H. pylori* be treated?

People with stomach or duodenal ulcers should be tested for *H. pylori*, and if found to be infected, they should be treated with antibiotics. Antibiotics are the new cure for ulcers; therapy consists of one to two weeks of one or two antibiotics and a medicine that will reduce the acid in the stomach. This treatment is a dramatic medical advance because eliminating *H. pylori* with antibiotics means that there is a greater than 90 percent chance that the ulcer can be cured for good.

How do people get infected with *H. pylori*?

We do not know how *H. pylori* gets into the body or why some people with *H. pylori* become ill while others do not. The bacteria most likely spread from person to person through the fecal-oral route (when infected fecal matter comes in contact with hands, food, or water) or the oral-oral route (when infected saliva or vomit comes in contact with hands, food, or water).

What can people do to prevent infection?

Since the source of *H. pylori* is not yet known, recommendations for avoiding infection have not been made. In general, it is always wise to wash hands thoroughly, eat food that has been properly prepared, and drink water from a source that is known to be clean and safe.

Are there any long-term consequences of *H. pylori* infection?

Recent studies have shown an association between long-term infection with *H. pylori* and the development of gastric (stomach) cancer. Gastric cancer is the second most common cancer worldwide; it is most common in countries such as Colombia and China, where *H. pylori* infects over half the population in early childhood. In the United States, where *H. pylori* is less common in young people, gastric cancer rates have decreased since the 1930s.

What is the Centers for Disease Control and Prevention doing to prevent *H. pylori?*

CDC, in conjunction with partners in other U.S. government agencies, academic institutions, and industry, is conducting a national education campaign to inform health care providers and consumers of the link between *H. pylori* and stomach and duodenal ulcers. CDC is also working with partners to learn how people become infected and what can be done to prevent infection, and to monitor the changes in antibiotic resistance among *H. pylori* strains in the United States.

How can I learn more about *H. pylori?*

Consult your doctor if you are concerned about *H. pylori*. Although we do not know everything about this bacterium, scientists are working to find out how people become infected, why some people develop symptoms, and what the best treatments are.

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History of Ulcer Diagnosis and Treatment

The road to a cure for ulcers has been a long and bumpy one. Recent news that ulcers are caused by a bacterium and can be cured with antibiotics has changed traditional thinking. Physicians and consumers have not been informed of the good news.

Early 20th Century

Ulcers are believed to be caused by stress and dietary factors. Treatment focuses on hospitalization, bed rest, and prescription of special bland foods. Later, gastric acid is blamed for ulcer disease. Antacids and medications that block acid production become the standard of therapy. Despite this treatment, there is a high recurrence of ulcers.

1982

Australian physicians Robin Warren and Barry Marshall first identify the link between *Helicobacter pylori (H. pylori)* and ulcers, concluding that the bacterium, not stress or diet, causes ulcers. The medical community is slow to accept their findings.

1994

A National Institutes of Health Consensus Development Conference concludes that there is a strong association between *H. pylori* and ulcer disease, and recommends that ulcer patients with *H. pylori* infection be treated with antibiotics.

1995

Data show that about 75 percent of ulcer patients are still treated primarily with antisecretory medications, and only 5 percent receive antibiotic therapy.

Consumer research by the American Digestive Health Foundation finds that nearly 90 percent of ulcer sufferers are unaware that *H. pylori* causes ulcers. In fact, nearly 90 percent of those with ulcers blame their ulcers on stress or worry, and 60 percent point to diet.

1996

The Food and Drug Administration approves the first antibiotic for treatment of ulcer disease.

1997

The Centers for Disease Control and Prevention (CDC), with other government agencies, academic institutions, and industry, launches a national education campaign to inform health care providers and consumers about the link between *H. pylori* and ulcers. This campaign reinforces the news that ulcers are a curable infection, and the fact that health can be greatly improved and money saved by disseminating information about *H. pylori*.

Medical researchers sequence the *H. pylori* genome. This discovery can help scientists better understand the bacterium and design more effective drugs to fight it.

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EM of spiral flagellated *H. pylori*