Peptic Ulcer Disease

What is Peptic Ulcer Disease (PUD)?
Peptic ulcer disease is a general term used to describe a breakdown in the lining of either your stomach (gastric ulcer) or the first part of your small intestine (duodenal ulcer).

What causes PUD?
Ulcers are caused by acid eroding the lining of the gastrointestinal tract. However, acid alone is not sufficient to cause PUD. Some other inciting factor is also necessary. Researchers believe that the two main culprits leading to PUD are:
- infection with Helicobacter pylori (“H. Pylori”) and/or
- use of non-steroidal anti-inflammatory drugs (NSAIDs).

In addition to these primary factors, there are a number of other factors that may increase your risk of developing an ulcer. These risk factors include:
- smoking
- extreme physical stress
- excessive alcohol use
- caffeine
- age (PUD risk increases with age)

WHAT IS Helicobacter pylori?
Helicobacter pylori (H. pylori) is a bacteria that can survive in the acid environment of the stomach. More than 90% of patients with duodenal ulcers and more than 80% of patients with gastric ulcers are infected with this bacteria.

How does someone “get” H. Pylori?
H. Pylori is spread much like a common cold in that you “catch” H.pylori from casual contact with an infected person or with items “contaminated” by an infected person. However, unlike the common cold, your body is unlikely to “get rid” of H.pylori without antibiotics.

What are NSAIDs?
In those patients with PUD who are not infected by H. Pylori, the vast majority has ulcers caused by NSAIDs.

NSAIDs are common drugs that are used primarily for painful musculoskeletal conditions, headaches or fever. NSAID is an abbreviation for the term, Non-Steroidal Anti-Inflammatory Drug. More than likely, you have used a NSAID at some point in your life. Some of the common NSAIDs available include:

**Very Low Risk of PUD**
Celecoxib (Celebrex®)

**Low Risk of PUD:**
Salsalate (Disalcid®)
Etodolac (Lodine®)
Nabumetone (Relafen®)
Sulindac (Clinoril®)
Medium Risk of PUD:
Ibuprofen (Motrin®, Advil®, Nuprin®)
Naprosyn (Aleve®)
Aspirin
Ketoprofen (Orudis®)
Diclofenac (Voltaren® or Cataflam®)
Tolmentin (Tolectin®)

Highest Risk of PUD:
Oxaprozin (Daypro®)
Fenoprofen (Nalfon®)
Piroxicam (Feldene®)
Indomethacin (Indocin®)

All of these NSAIDs can alleviate pain and inflammation quite well. Unfortunately, even with proper use, NSAIDs can lead to gastrointestinal problems including peptic ulcer disease.

What are symptoms of PUD?
The most common symptom of PUD is usually described as a gnawing pain in the abdomen, between the navel and the breastbone. The pain frequently occurs on an empty stomach, especially in the early morning hours or sometimes, after eating. The abdominal pain is relieved by eating (also aggravates in some cases), drinking milk, or by taking an antacid or some other ulcer treatment medication. However, up to 25% of people with PUD will have NO pain. In fact, if you are taking a NSAID, the pain associated with your PUD is often absent. Other symptoms of PUD, which may or may not be present, include:

- nausea
- vomiting, possibly mixed with dark flecks of material, which may represent blood, usually having the appearance of coffee grounds.
- weight loss
- loss of appetite
- black, tarry, foul smelling stools
- fatigue, especially if your ulcer has been bleeding slowly over a long period of time.

Frequently, you can be bleeding from an ulcer for a long time and you might not even know it.

How is PUD diagnosed?
Infection by H. pylori can be detected with a simple blood test. However, this blood test is not always able to differentiate between a current infection by H. pylori versus a remote infection that has already been treated. When necessary, your doctor may order a special stool test or a radioactive breath test in order to determine whether you have an active infection from H. pylori. If it is clear that you have an infection from H. pylori and you have symptoms of PUD, your doctor may elect to treat your H. pylori infection and see if your symptoms disappear. Also, your physician may send you for a barium x-ray of your stomach to look for ulcers. If there remains any uncertainty about your diagnosis or you are at risk for stomach cancer (older age, family history, certain dietary and occupational
exposures, gastric ulcer detected on your barium x-ray), your physician may refer you to a gastroenterologist at Dubuque Internal Medicine for an endoscopy.

ENDOSCOPY: An endoscopy is currently done as an outpatient either at the hospital or in the Dubuque Endoscopy Center (located in the back of the main Dubuque Internal Medicine building). You are usually able to go home within an hour or two of your test. This test involves placing a flexible scope into your mouth, down into your esophagus, through your stomach and into the first part of the small intestine. This test allows your doctor to directly see the lining of the upper gastrointestinal tract. If you have an ulcer, your doctor should be able to see it. Also, an endoscopy allows your physician to take biopsies in the stomach and small intestine, which may reveal the presence of H. pylori when looked at under the microscope.

How is PUD treated?
Currently, there are a number of treatment options for PUD. These options include:

ANTACIDS: Not too long ago, antacids were the only available treatment for PUD. Mylanta, TUMS and Maalox are included in this category.

H-2 BLOCKERS: Suppress acid production. Cimetidine-Tagamet®, Ranitidine-Zantac®, Famotidine-Pepcid® and Nizatidine-Acid®

PROTON PUMP INHIBITORS: Potent acid suppression. Omeprazole-Prilosec®, available without a prescription
   Lansoprazole-Prevacid®, Pantoprazole-Protonix®, Rabeprazole-Aciphex®, Esomeprazole-Nexium®, Dexlansoprazole-Dexilant®

SUCRALFATE: Sucralfate (Carafate®) is a novel drug that neutralizes acid and creates a protective barrier over the ulcer, promoting healing.

All these drugs are quite effective at treating ulcers but recurrence of PUD is quite common if the underlying cause is not treated.

After the discovery of the role of H. pylori in PUD, the importance of treatment of PUD with antibiotics (in addition to the acid suppression treatments above) became apparent. There are a number of different antibiotic regimens that are effective in eradicating H. pylori. Your doctor will choose the regimen that is best suited for you. Finally, the role of NSAIDs in PUD mandates avoidance of these products. Many drugs that are available without a prescription may contain NSAIDs and you may not even be aware of it. For example, many cold and flu preparations contain several different medications and one of
these medications may be a NSAID. Review the names of the NSAIDs listed earlier in this pamphlet and then read product labels before you use them. If you have any questions about the safety of a certain drug, please call your physician at Dubuque Internal Medicine.