Barrett's esophagus is a condition in which the tissue lining of the esophagus -- the tube connecting the mouth to the stomach -- becomes damaged by acid from the stomach. This damage causes tissue that is similar to the lining of the small intestine to replace the normal tissue lining of the esophagus.

Barrett's esophagus is a silent condition because there are no signs or symptoms associated with it. However, it is commonly found in people who have gastroesophageal reflux disease (GERD). Barrett's esophagus is an area of ongoing research because it is a risk factor for a specific type of esophageal cancer called esophageal adenocarcinoma.

What causes Barrett's esophagus?

Anytime you eat, food passes from the mouth to the throat and eventually to the stomach via the esophagus. The act of swallowing causes the muscles at both ends of the esophagus (sphincters) to relax, which allows food or drink to reach the stomach. Once the food or drink is in the stomach, it is stored until the time of digestion. When you are ready to eat again, your brain sends a signal to your stomach, and the stomach releases gastric juices into the esophagus to begin the process of digestion. This process is called acid reflux.
stomach, the muscles close quickly to prevent these materials from leaking back into the esophagus and mouth.

Gastroesophageal reflux (GER) occurs when the lower muscle of the esophagus opens randomly or does not close properly, and some of the stomach's contents rise into the esophagus and mouth.

People with GER may taste food or fluid in the back of the mouth. They may also experience heartburn (acid indigestion), which is marked by a burning sensation in the chest or throat. It is normal for this to happen occasionally; however, if it happens more than twice a week it may be considered to be gastroesophageal reflux disease (GERD).

GERD can be a serious condition because it can often lead to other health problems such as bleeding ulcers and Barrett's esophagus if left untreated. In certain people, GERD causes Barrett's esophagus if the leaked stomach contents damage the lining of the esophagus. Researchers are continuing to investigate the causes of Barrett's esophagus, but at this time GERD is considered to be a strong risk factor.

**Who is likely to be affected?**

Results from different studies vary, but Barrett's esophagus probably only affects about 1 percent or 2 percent of adults in the United States. Most people with the diagnosis are age 50 or older, and men are twice as likely to develop it as women. In addition, Caucasian men are more likely to be affected than men of other races. People who have had GERD for an extended period of time are more likely to have Barrett's esophagus than those who don't have GERD. However, it is possible to develop Barrett's esophagus and not have GERD. Being overweight or obese also increases the risk of Barrett's esophagus.

**How is it diagnosed?**

Barrett's esophagus is diagnosed using an upper gastrointestinal endoscopy, which obtains biopsies of the esophagus. During an endoscopy, the patient is sedated and medical staff inserts a flexible tube (endoscope) into the esophagus. The endoscope contains a light and a miniature camera, allowing the doctor to determine if the tissue seems concerning. If suspicious tissue is found, the doctor will use a pincher-like tool to remove several small pieces of it. This process is called a biopsy. The samples are then examined in a laboratory to determine if the person has Barrett's esophagus.
Adults with more than one risk factor for esophageal adenocarcinoma -- such as age greater than 50, GERD symptoms for many years, Caucasian race, hiatal hernia, or obesity -- should consider undergoing an endoscopy with biopsies to check for the condition. However, recommendations regarding screening for Barrett's esophagus may change periodically due to the most recent research, so it is best to consult with your doctor about the most recent recommendations.

**Barrett's esophagus and cancer**

One reason that doctors screen for Barrett's esophagus is that there is a chance, albeit small, for a person with Barrett's esophagus to develop a specific kind of cancer called esophageal adenocarcinoma.

Each year, less than 1 percent of people with Barrett's esophagus develop this cancer. However, Barrett's esophagus may be present long before the cancer develops. Often, the cancer is not detected until its later stages when treatments are not as effective. People with Barrett's esophagus are usually recommended to periodically undergo endoscopies that include biopsies to check for the cancer's warning signs. It is important that multiple biopsies are taken to test thoroughly for cancerous or precancerous cells. Sometimes these cells can be missed in a single biopsy.

Usually, precancerous cells appear in Barrett's esophagus tissue before the onset of cancer. When these cells are present, it is classified as a condition called dysplasia. This condition serves as a strong warning sign of the possibility for cancer in the future. Detecting and treating precancerous cells may prevent the actual cancer from developing.

**Treating Barrett's esophagus with dysplasia or cancer**

Generally Barrett's esophagus is not treated with surgery or procedures unless tests show a high chance of cancer development. This means that the dysplasia is severe or high-grade.

Treatment options for Barrett's esophagus with dysplasia or cancer include:

- **Radiofrequency ablation** -- While the patient is sedated, heat energy is applied to the Barrett's esophagus lining using a device that is inserted through the mouth.

- **Endoscopic Mucosal Resection (EMR)** -- Uses processes that include suctioning, solution injection and cutting to remove the Barrett's esophagus lining through an endoscope.

- **Surgery** -- Most of the esophagus is removed and the remainder of the esophagus is attached to a portion of the stomach that is pulled up into the chest.

**Preventing Barrett's esophagus**

The diagnosis and treatment of GERD may prevent the onset of Barrett's esophagus. There are medications that your doctor may prescribe to treat GERD (see the NetWellness GERD page 3 of 5)
overview). However, there are also some lifestyle changes that can be made to manage GERD, which could potentially prevent Barrett's esophagus:

- Lose weight if you are overweight
- Wait at least three hours before lying down after eating
- Do not eat large meals
- Put 6-inch blocks under the legs at the head of your bed
- Do not wear tight clothes around your belly
- Bend at your knees instead of bending over at the waist
- Do not smoke.

It is also important to avoid foods and liquids that relax the stomach muscle or stimulate acid including: caffeine, peppermint, spearmint, alcohol, citrus foods and juices, foods high in fat.

Related topics: adenocarcinoma, barrett's esophagus, cancer, gastroesophageal reflux, linda cheng cummins, reflux