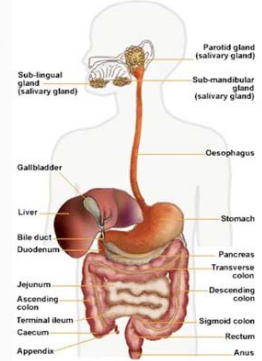


Gastroesophageal Reflux and Barrett's Esophagus

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Your Upper GI Anatomy



Your Anatomy

- The esophagus carries food and liquids from the mouth to the stomach
- The stomach slowly pumps the food and liquids into the intestine, which then absorbs needed nutrients
- The muscular layers of the esophagus are normally pinched together at both the upper and lower ends by muscles called sphincters
- The sphincters relax to allow food or drink to pass from the mouth into the stomach
- The muscles then close rapidly to prevent the food or drink from leaking out of the stomach back into the esophagus and mouth.

What is gastroesophageal reflux disease (GERD)?

- The abnormal presence of stomach or small bowel contents in the esophagus
- GER occurs when the lower esophageal sphincter opens spontaneously for varying periods of time or does not close properly
- When GER occurs:
 - food or fluid can be tasted in the back of the mouth.
 - a burning sensation in the chest or throat called heartburn or acid indigestion may occur

GERD and it's Consequences

SYMPTOMS:

Heartburn
Regurgitation
Hoarseness
Cough
Burning tongue
Chest pain
Trouble swallowing

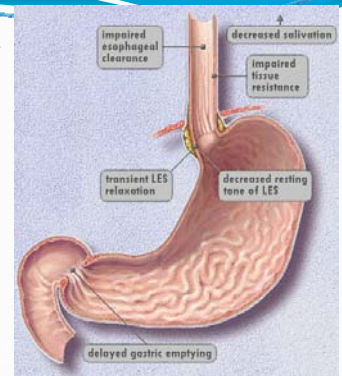
COMPLICATIONS:

Esophagitis
Stricture
Barretts Esophagus
Esophageal Cancer
Asthma?
Laryngitis
Sinusitis
Otitis



Other Factors Contributing to your GERD

Problems with the valve at the base of the esophagus are only part of the problem.



When do I get concerned about heartburn

- It routinely occurs more than twice a week
 - You can treat this yourself
- You get trouble swallowing, unexplained cough, **NON-CARDIAC** chest pain
- Any signs of bleeding
- No response or poor response to over the counter medications
 - You need to see a doctor

Can I control GERD without medications?

- To some degree...
- Things that work:
 - 1. Do not eat with 3 hours of going to bed
 - Sleep on your left side
 - Sleep at a 30 degree angle
 - Lose weight
- Things that do not work:
 - Loose fitting clothing
 - Avoiding spicy foods



What medications are helpful?

Over the Counter

- Antacids:
 - Maalox Mylanta Pepto-Bismol Riopan Roloids
- H2 Blockers
 - cimetidine (Tagamet HB)
 - famotidine (Pepcid AC)
 - nizatidine (Axid AR)
 - ranitidine (Zantac 75)
- Proton Pump Inhibitors
 - omeprazole (Prilosec OTC)

Prescription

- Proton Pump Inhibitors
 - esomeprazole (Nexium)
 - lansoprazole (Prevacid, Kapidex)
 - omeprazole (Prilosec, Zegerid)
 - pantoprazole (Protonix)
 - rabeprazole (Aciphex)

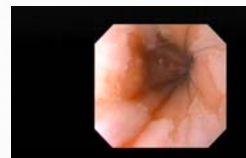
What can medications do?

- Definitely:
 - Stop heartburn
 - Heal the esophagus
 - *Prevent* complications including perhaps Barretts
 - Improve symptoms such as cough or hoarseness
- Maybe:
 - Cause Barretts to resolve
 - Reduce the risk of getting cancer with Barretts

What is Barrett's esophagus

- Barrett's esophagus is a condition in which the tissue lining the esophagus—the muscular tube that connects the mouth to the stomach—is replaced by tissue that is similar to the lining of the intestine.
- Called "intestinal metaplasia"
- No signs or symptoms are associated with Barrett's esophagus
- A small number of people with Barrett's esophagus develop a rare but often deadly type of cancer of the esophagus.

Barretts seen during endoscopy



Cancer from Barretts



How is Barretts diagnosed



- It is recommended that adults older than 40 who have had GERD for a number of years undergo an endoscopy and biopsies to check for the condition
- PillCam Eso an option but...

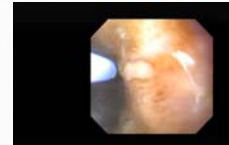


What are my Barrett's and cancer risks if I have GERD?

- If you have Chronic GERD there is a 17% chance you have Barretts
- If you have Barretts there is a 1% chance per year of developing cancer
- So...
 - If you have Barretts we recommend periodic endoscopic exams to look for early signs of cancer called **DYSPLASIA**.
 - **Typically upper endoscopy every 3 years with extensive biopsies.**

Eradicating Barretts by Endoscope

Endoscopic Mucosal resection (EMR)
 Radiofrequency ablation (HALO 360/90)
 Cryotherapy (liquid nitrogen or carbon dioxide)
 Photodynamic therapy (PDT)



The HALO³⁶⁰ System

Advanced Technology, Clinically Tested



What if cancer is found

- Could still be treated endoscopically in some cases but..
- Surgical resection of the esophagus is often required
- The type of surgery varies, but it usually involves removing most of the esophagus, pulling a portion of the stomach up into the chest, and attaching it to what remains of the esophagus.

Take Home Points

- In Barrett's esophagus, the tissue lining the esophagus is replaced by tissue that is similar to the lining of the intestine.
- Barrett's esophagus is associated with gastroesophageal reflux disease (GERD).
- Improvement in GERD symptoms with acid-reducing drugs may decrease the risk of developing Barrett's esophagus.
- Barrett's esophagus is diagnosed through an upper gastrointestinal endoscopy and biopsies.
- People who have Barrett's esophagus should have periodic surveillance endoscopies and biopsies.
- Endoscopic treatments are used to destroy Barrett's tissue, which will hopefully be replaced with normal esophageal tissue.
- Removal of most of the esophagus is recommended if a person with Barrett's esophagus is found to have severe dysplasia or cancer and can tolerate a surgical procedure.