

A Trip Through the GI Tract: Common GI Diseases and Complaints

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Colon Cancer

- How does it develop?
 - Most cancers arise from polyps
 - Over time these can turn into cancer
 - Combination of genetic and environmental factors
 - Risk increases with the size of the polyp, number and type of polyp

Why Do I Need A Colonoscopy?

- Third most common cancer in the United States in men and in women
- Second leading cause of cancer death in the United States (first is lung cancer)
- More than 132,000 new cases diagnosed each year
- More than 50,000 Americans die from colorectal cancer each year
- Rare before the age of 40
 - Increased incidence between ages of 40-50
 - Lifetime risk is about 5%
 - 90% of cases after age 50
- Screening does reduce mortality from colon cancer
- Studies have shown that screening rates are low – around 55%
 - Lower for racial and ethnic minorities, and women

What Increases Your Risk of Colon Cancer?

- African Americans > Caucasians
- Men > women
- Inflammatory bowel disease
 - Ulcerative Colitis
 - Crohns Disease
- Family member with colon cancer or polyps
- Personal history of polyps or colon cancer
- History of renal or other transplant
- History of radiation therapy for prostate cancer or to pelvic area – primarily adult survivors of childhood cancer having received pelvic radiation

What Increases Your Risk of Colon Cancer?

- Diabetes
- Excessive alcohol intake – more than 3-4 drinks a day
- Cigarette smoking
- Obesity
- Long-term consumption of red meat or processed meats
- History of endometrial cancer

Family History

- Family history of colorectal cancer occurs in 10% of adults, and 25% of cases
- 2x risk if first degree relative
 - Parent, child, sibling
- 6x risk if large number of family members affected, especially if under 50 years of age
- Family history of polyps under 60
- Certain genetic syndromes

Symptoms

- Abdominal pain
- Change in bowel habits – diarrhea or constipation
- Stools that are narrower or thinner than normal
- Feeling that bowels do not completely empty
- Blood in stool – red or black
- Weakness
- Anemia
- Weight loss





What Are My Options For CRC Screening?

- Colon Cancer Prevention
- Colon Cancer Detection

How do I get Screened?

- Fecal occult blood test
- FIT test
- Fecal DNA test
- Flexible sigmoidoscopy
- Colonoscopy
- Barium enema
- Virtual Colonoscopy

Fecal Occult Blood Test

- Stool cards
- Diet for 2 days – no red meat, turnips, horseradish, nsaids, vitamin C
- Annual test
- Decreases mortality by 30%
- Disadvantages:
 - Many false positives – only 2% patients with a positive test have colon cancer
 - Not a good test to detect colon polyps

FIT

- Immunochemical test for fecal blood
- More specific
- More expensive

Fecal DNA

- Cologuard
- Once every 3 years

Flexible Sigmoidoscopy

- Direct visualization of the left side of the colon
- Decreases mortality by 30%
- Disadvantages:
 - No sedation
 - Only looks at the left side of the colon
 - Large polyps usually not removed
 - If polyps found – still need full colonoscopy
- Performed every 5 years
- Most experts recommend FIT/FOBT yearly, plus sigmoidoscopy every 5 years

Colonoscopy

- Direct visualization of the entire colon
- Requires bowel preparation
 - Eat a light breakfast the day before, and then clear liquids
 - Bowel prep
- Sedation given
- Very comfortable test
- Polyps can be removed at the time of the procedure
- The preferred screening test

Virtual Colonoscopy

- Performed by radiologist – CT scan
- Non-invasive
- Requires a bowel prep, colon is inflated with air, and allows visualization of entire colon
- No sedation given- may be more painful than colonoscopy
- Not widely available
- If polyps found – still need colonoscopy
- Studies have shown >90% of polyps found, but not as good in centers with less experience
 - More accurate for larger polyps
 - Not as good at detecting small polyps
- Not widely recommended as a screening tool
 - Shows promise
 - Consider in higher risk patients
 - Incomplete colonoscopy

Barium Enema

- Performed by a radiologist
- Disadvantages:
 - No sedation
 - Bowel prep required
 - May miss up to 39% of all polyps
 - Abnormalities require follow-up colonoscopy

ACG Screening Guidelines

- Average risk patient – begin screening at age 50 (African Americans Age 45)
- Preferred:
 - **Colonoscopy** – every 10 years
 - CT Colonography – every 5 years
 - Flexible sigmoidoscopy every 5 years
 - Barium enema every 5 years
- Alternative:
 - **FIT, FOBT** every year
 - Cologuard every three years ??

Screening Guidelines In High Risk Patients

- First degree relative (FDR) < 60 with colon cancer or polyps, or 2 or more FDR at any age
 - Colonoscopy at age 40 or 10 years earlier than age of youngest at diagnosis, whichever is first
- FDR with colon cancer or polyps > 60 or two second degree relatives with colon cancer
 - Start at age 40
- Genetic syndrome – genetic testing and screening at earlier age
- Inflammatory bowel disease – every 1-2 years after 8-10 years of disease

How Can You Reduce Your Risk Factors?

- High fiber diet – conflicting data, but recommended
- Diet low in red meat, cholesterol
- Diet high in fruits and vegetables
- Folic acid
- Physical activity
- Aspirin and nsaids
 - Most studies have shown 40-50% reduction in colorectal cancer and polyp rates.
 - May take up to 10 years or more for significant effect
- Calcium – conflicting results but recommended
- Stop smoking!!!!!!

Summary

- Colon cancer is the third most common cause of cancer, and the second leading cause of death from cancer in the United States.
- Screening can decrease mortality.
- Talk to your doctor about what your risks are, and which screening test is the best for you to undergo.

Gastroesophageal Reflux Disease

- GERD
- Caused when stomach contents reflux into the esophagus

Symptoms

- Heartburn – a burning sensation usually behind the breastbone, chest, upper abdomen
- Regurgitation – a feeling of food or liquid flowing into the throat or mouth
- Difficulty swallowing or painful swallowing
- Chest pain – can mimic a heart attack
- Nausea

Evaluation and Treatment

- Rule out cardiac disease
- Treat with medications
 - Medications that decrease acid production by the stomach

Treatment

- Dietary and lifestyle changes
 - Avoid foods that can cause a lot of reflux such as chocolate, mint, orange juice, fatty foods, alcohol, caffeine, carbonated beverages
 - Do not lie down after eating a meal
 - Avoid eating or drinking up to 2-3 hours before bedtime
 - Raise the head of the bed 6-8 inches
 - Avoid tight fitting clothes
 - Weight loss

When should you have an endoscopy?

- Persistent symptoms that do not improve with treatment
- Chronic symptoms
- Any alarm symptoms
 - Difficulty or painful swallowing
 - Weight loss
 - GI bleeding – black or bloody stool
 - Anorexia
 - Nausea and vomiting

Helicobacter Pylori

- Also known as H. pylori
- A bacteria that lives in the stomach
- Found in up to 50% of the population in developed countries
- More common in hispanics and african americans
- More common in underdeveloped countries
- Unknown how transmission occurs

Helicobacter Pylori

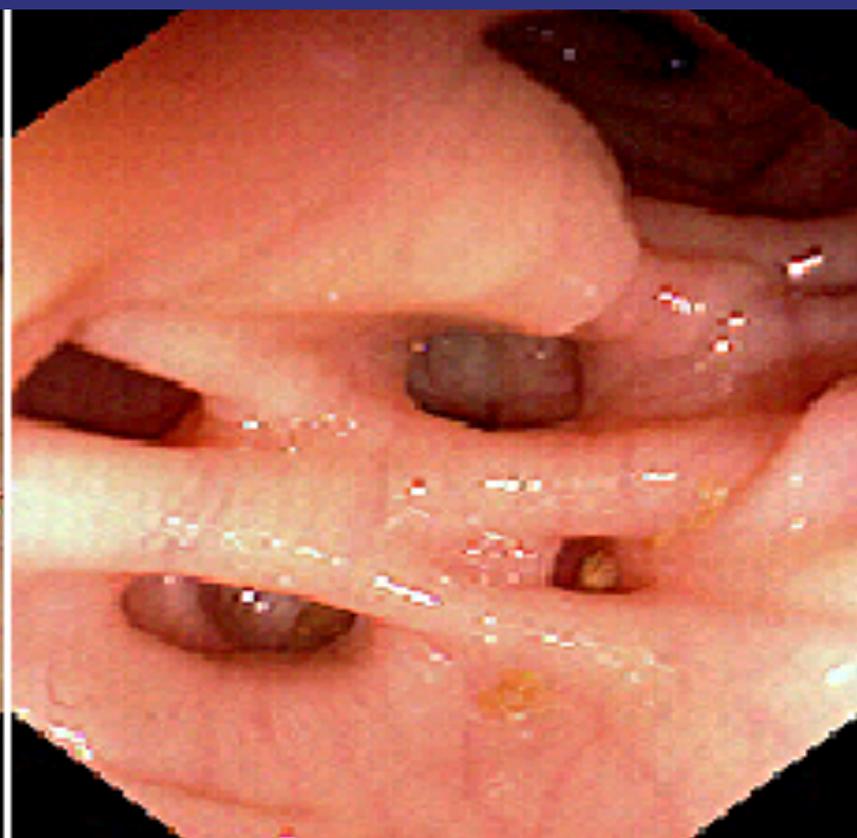
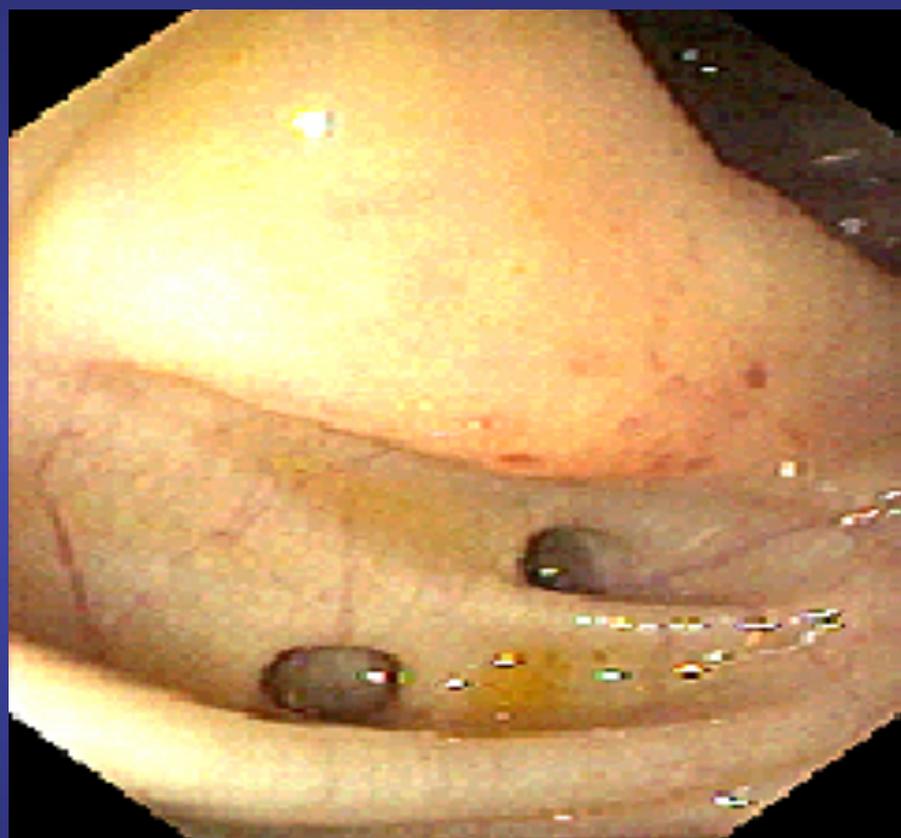
- Symptoms include abdominal pain, GERD, etc.
- Treat with a combination of antibiotics and acid suppressing medications
- Important to treat because there is a risk of developing ulcers in the stomach or small bowel, gastric cancer, and lymphoma

Barrett's Esophagus

- Changes in the lining of the esophagus from chronic reflux
- Potentially pre-cancerous – 0.5 % a year
- Screen for changes if symptoms of chronic GERD
- Treat with acid suppressing medications
- Perform an endoscopy periodically to re-evaluate

Diverticulosis

- Weakness in the lining of the colon that causes pockets to develop in the colon
- Usually asymptomatic
- Complications include:
 - Diverticulitis
 - Bleeding
 - Symptomatic uncomplicated disease
- Risk factors?



Diverticulitis

- Infection of diverticula
- Symptoms include:
 - Abdominal pain – primarily lower left abdomen
 - Diarrhea or constipation
 - Fever
 - Blood in bowel movements
 - Nausea and vomiting
 - Urinary symptoms

Diverticulitis

- Usually treat with antibiotics, low fiber diet
- Diagnosis:
 - Physical exam
 - CT scan
 - Previous history
- Complications include:
 - Perforation
 - Abscess
 - Bowel obstruction
- Once treated, a colonoscopy should be performed to rule out colon cancer or polyps

What Can You Do To Prevent Diverticulosis Or It's Complications?

- Follow a high fiber diet
- It is OKAY to eat foods such as corn, nuts, seeds, etc.
 - They are high in fiber and nutrients

Gas and Bloating

- Symptoms: belching, bloating, abdominal pain, flatulence, constipation
- What causes this?
- How to treat it?