

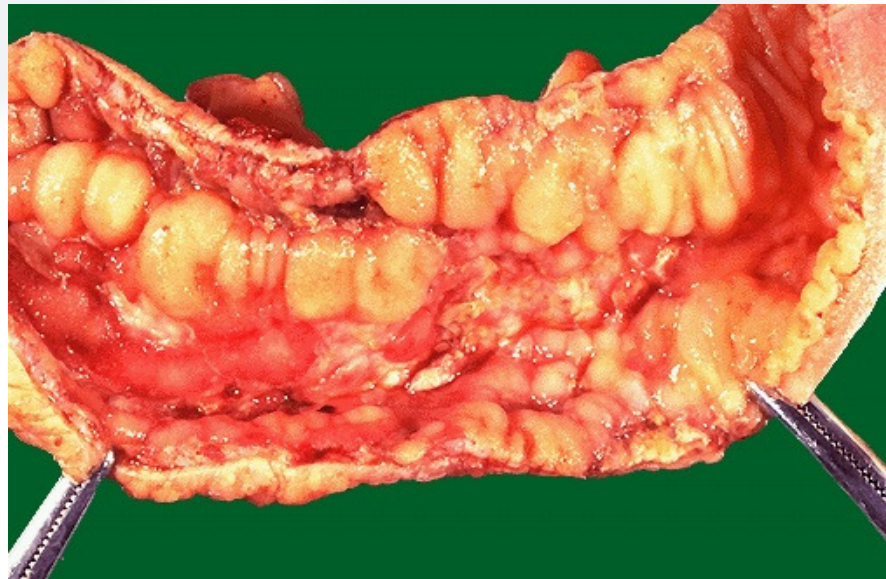


Crohn's Disease

By Amy Harris & Christa Kolstad

What is Crohn's Disease?

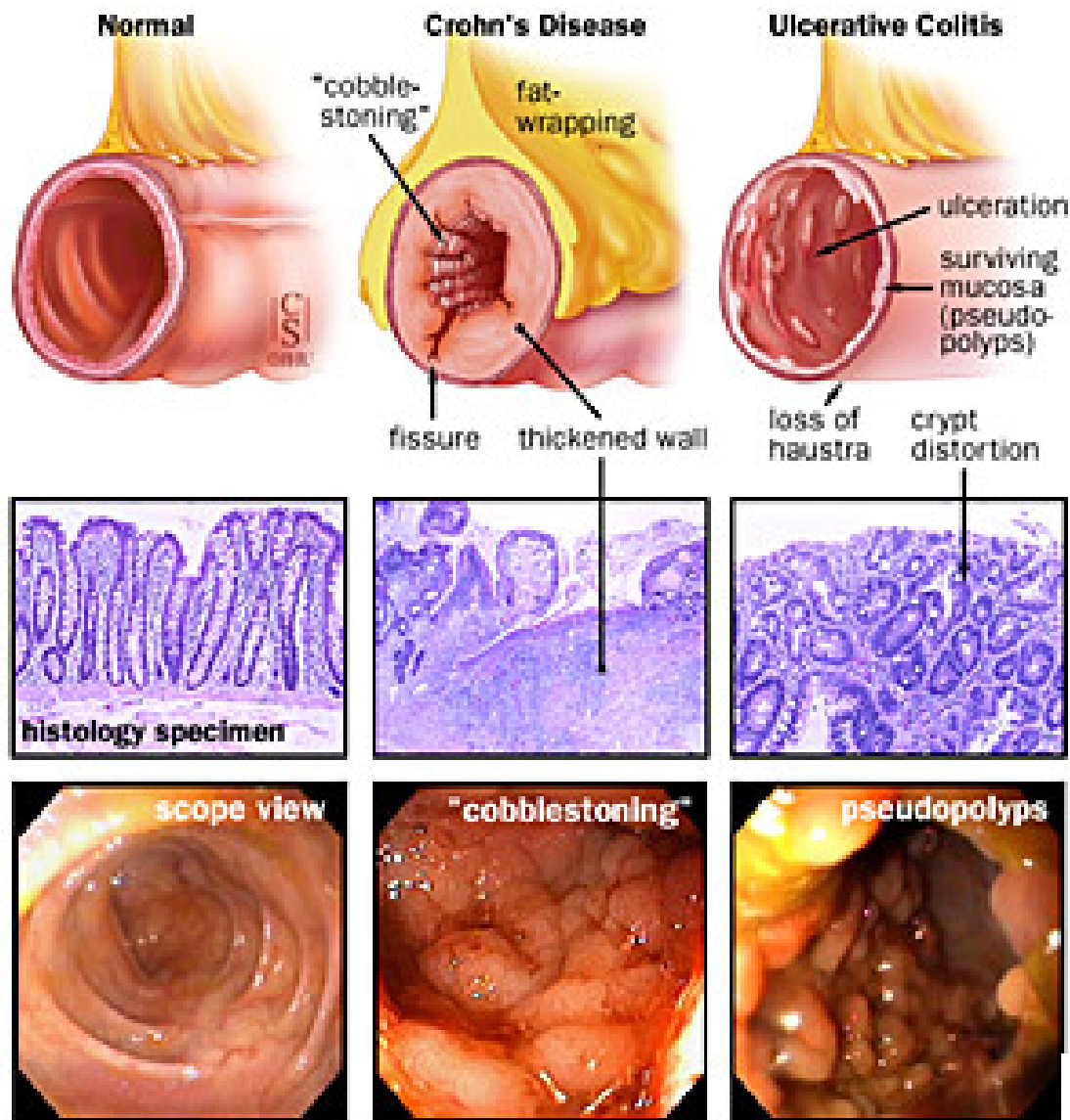
- Inflammatory Bowel Disease
- Genetic, autoimmune, no medical cure
- Triggers immune system to attack intestinal lining, causing:
 - Maldigestion
 - Malabsorption
 - Ulceration
 - Inflammation
 - Granulomas



What is Crohn's Disease?

- Most often affects ileum and colon
 - Liver, kidneys, joints, eyes, and skin
- Fistulas may develop
- Narrowing of the lumen → obstructions
 - Can cause rupture → peritonitis
- More serious than Ulcerative Colitis
 - Deeper lesions (below submucosa)

What is Crohn's Disease?



John Hopkins: Gastroenterology & Hepatology. "Crohn's Disease."

What causes Crohn's Disease?

- Genetic/unknown
- Autoimmune?
 - Immune system mistakes bacteria and food as foreign
 - Attacks “invaders”
 - WBCs accumulate → chronic inflammation, ulcerations, and bowel injury → chronic tissue changes
- Environmental?
 - Body's reaction to antigens or antigens themselves

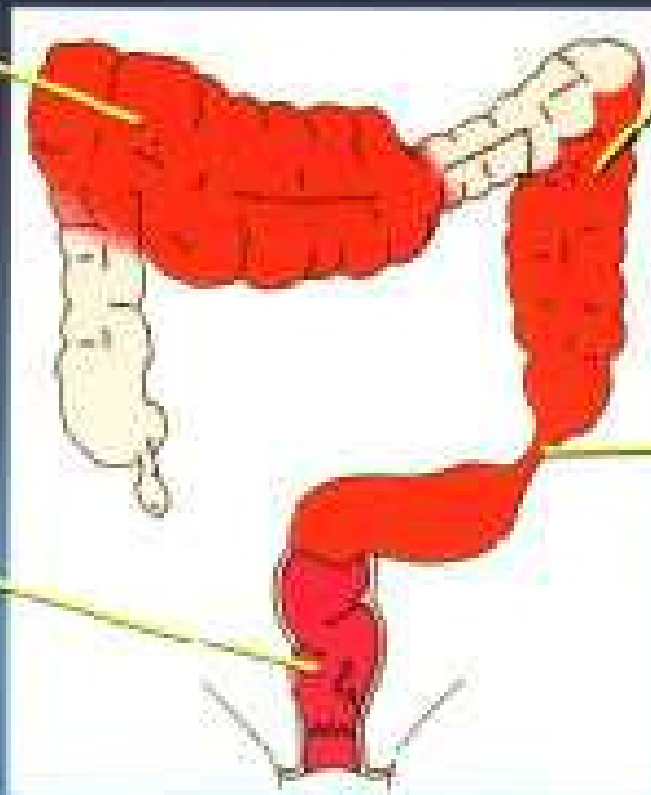


Features of Inflammatory Bowel Disease

Colon - Crohn's and Ulcerative Colitis

Toxic Disease

High fever
Distension
Pain



Diffuse Disease

Diarrhea
Bleeding
Fever
Malaise

Rectal Disease

Urgency
Pain
Bleeding

Stricture

Distension
Pain/Cramps
Loud bowel sounds
Changes in bowel habits

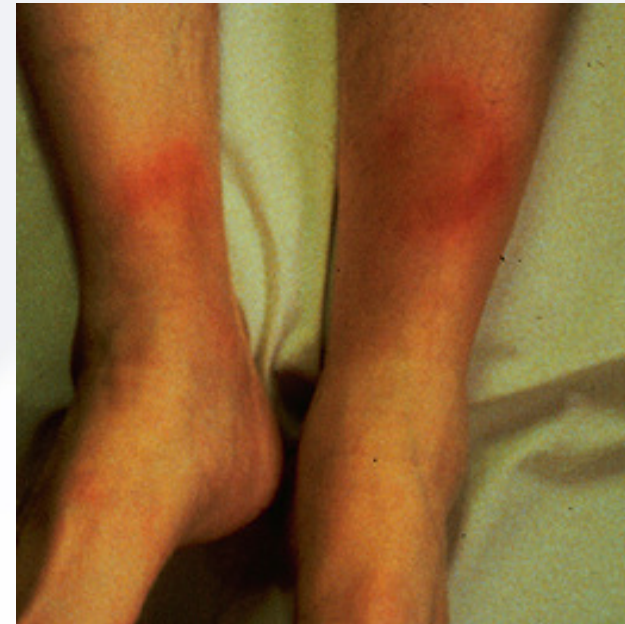
Symptoms of Crohn's Disease



- Abdominal pain, cramps
- Nausea/vomiting
- Diarrhea
 - Malabsorption → steatorrhea
- Fever, general malaise
- Bleeding → anemia
- Changes in bowel sounds
- Distension

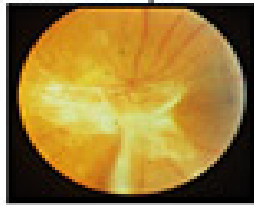
Problems Associated with Crohn's Disease

- Arthritis (autoimmune)
- Skin problems
- Decreased bone density
- Food aversion
 - Growth failure in kids
 - Malnutrition
 - Unintentional weight loss
 - Psychological issues





Eyes
Episcleritis
Uveitis

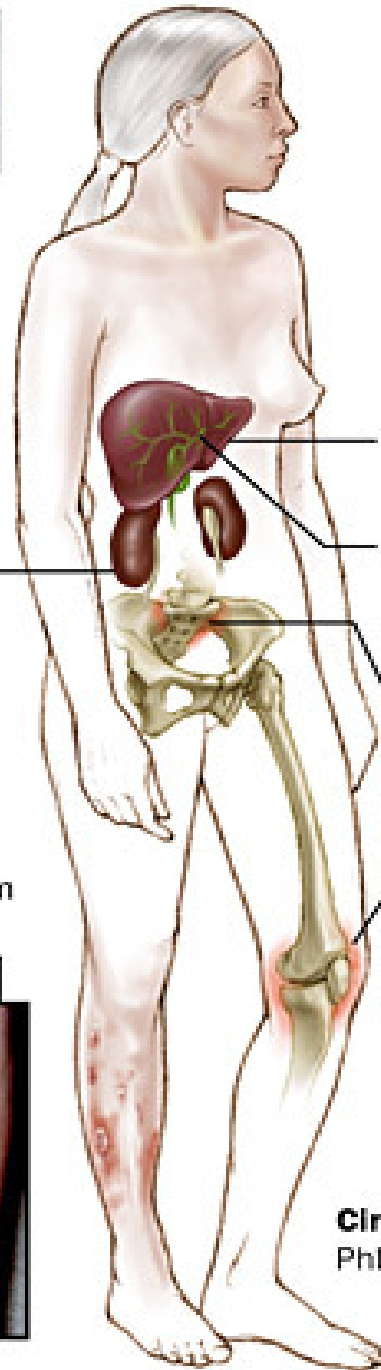


Kidneys
Stones
(nephrolithiasis)
Hydronephrosis
Fistulae
Urinary tract
infection

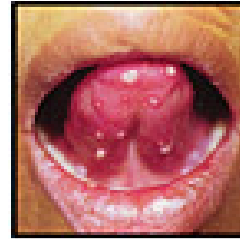
Skin
Erythema nodosum
Pyoderma
gangrenosum



M
K
GHE



Mouth
Stomatitis
Aphthous ulcers



Liver
Steatosis

Biliary tract
Gallstones
Sclerosing cholangitis

Joints
Spondylitis
Sacroiliitis
Peripheral arthritis

Circulation
Phlebitis

Who is at risk for Crohn's Disease?



- Genetically predisposed
 - 20% of Crohn's patients have a blood relative with IBD
 - ↑ risk for people of Jewish heritage
 - ↓ risk for African Americans
- Most commonly diagnosed between ages 20-40, second peak between 50-70
 - Affects men and women equally

Prevalence of Crohn's Disease

- 500,000 in United States are known
- 1 in every 544 people
- Smokers are 3x more likely



John Hopkins: Gastroenterology & Hepatology. "Crohn's Disease."

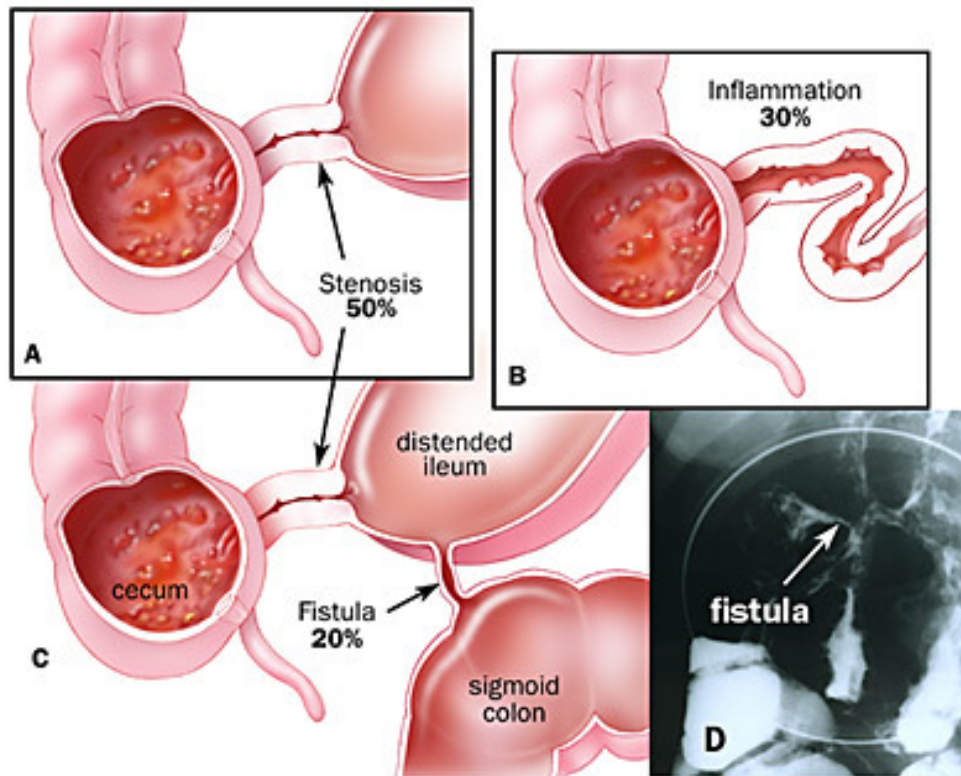
Diagnosis of Crohn's Disease



- Blood test
 - Anemia → blood loss, iron, or B-12 deficiency
 - ESR (erythrocyte sedimentation rate)
 - CRPs & WBCs → indicate inflammation
- ASCA & ANCA antibodies → Crohn's vs. UC
- Colonoscopy
 - In-depth test to look at entire colon
 - Biopsy sent to pathologist
 - 70% effective in diagnosing Crohn's

Medical Nutrition Therapy

- Treatment for active symptoms only
- If fistula/obstruction → NPO



Symptoms:

50% Stenosis
30% Inflammation
20% Fistula

Medical Nutrition Therapy



- Diet recommendations are individualized
 - Adequate intake of calories, fluids, vitamins, minerals, and protein (1.3-1.5 g/kg)
 - Small frequent meals
 - Low residue to decrease diarrhea
 - Decrease lactose with intolerance issues
 - Low fat with MCT oils (if steatorrhea)
 - Possible drug therapy (steroids, immunosuppressants) or surgery

Biancone L, Tosti C, Fina D, Fantini M, De Negis F, Geremia A & F. Pallone. Review article: maintenance treatment of Crohn's disease *Aliment . Pharmacological Therapy* 2003; 17 (Suppl. 2): 31-37.

Tsujikawa T, Andoh A, and Fujiyama Y. Enteral and Parenteral Nutrition Therapy for Crohn's Disease. *Current Pharmaceutical Design* 2003; 9: 323-332.

Case Study #14

- Patient: Matthew Sims
- 35 y/o white male
- Non-smoker
- High school math teacher
- Diagnosed with IBD 2½ years ago
 - Crohn's specifically 6 months ago
- Chief complaint: increased diarrhea, unbearable abdominal pain, and fever.

Medical History



- Initial workup indicated acute disease within last 5-7 cm of jejunum and first 5 cm of ileum.
- Hospitalized for 2 weeks upon diagnosis of abscess and exacerbated Crohn's
- Past meds: Corticosteroids, Azulfidine
- Current meds: 6-mercaptopurine

Physical Exam

- Ht: 5'9" Wt: 140 lbs.
- Temp: 101.5 °F
- BP: 125/82 mmHg
- Abdominal distention
 - Extreme tenderness with rebound and guarding**
 - Minimal bowel sounds
- No perianal disease

