MUSCAT ENDOSCOPY ACADEMY

Inflammatory Bowel disease (IBD)

Done by :

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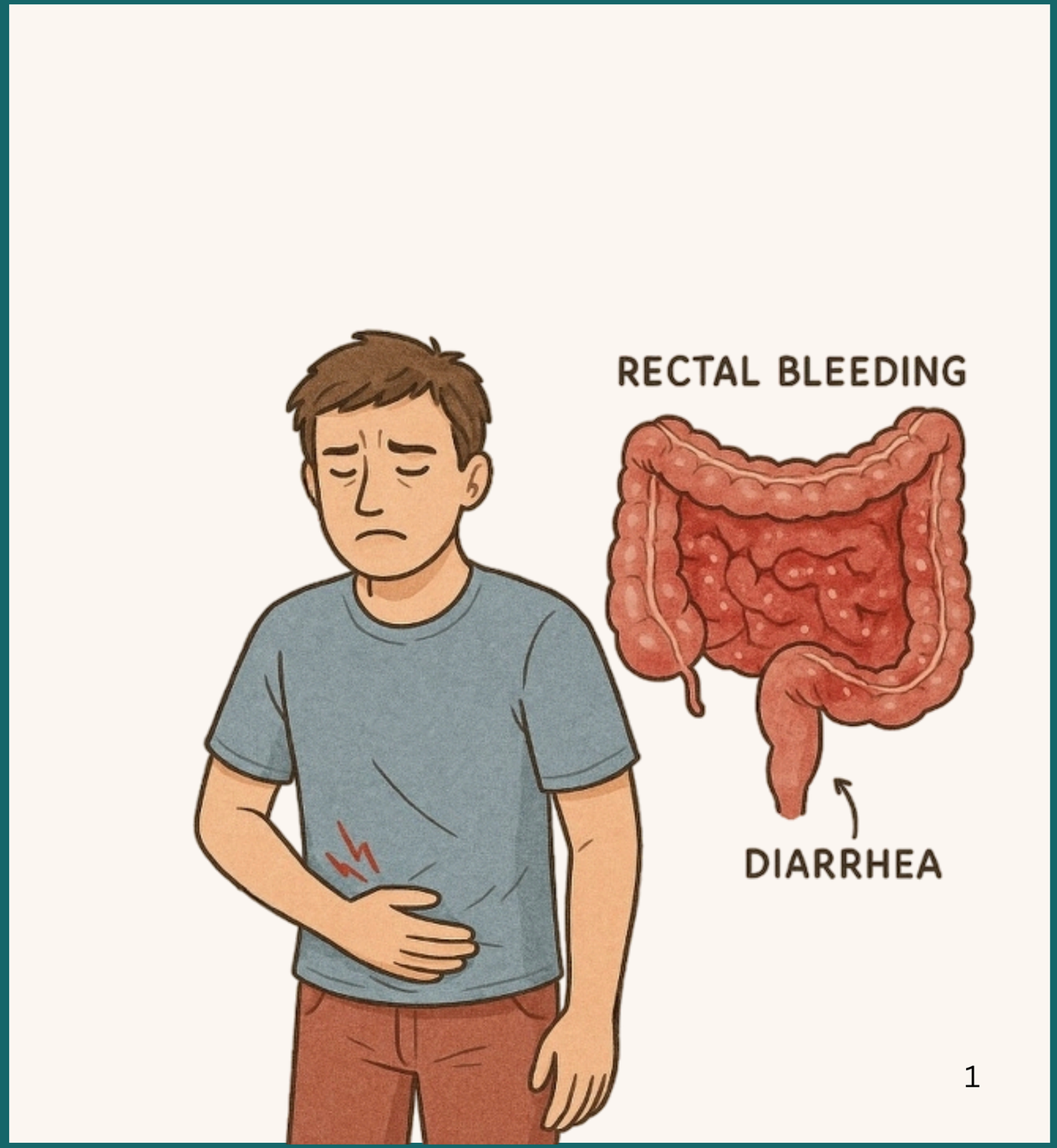


Objectives:

- Define inflammatory bowel disease (IBD) and name its two main types: Ulcerative Colitis and Crohn's disease.

- Identify key endoscopic findings in IBD.

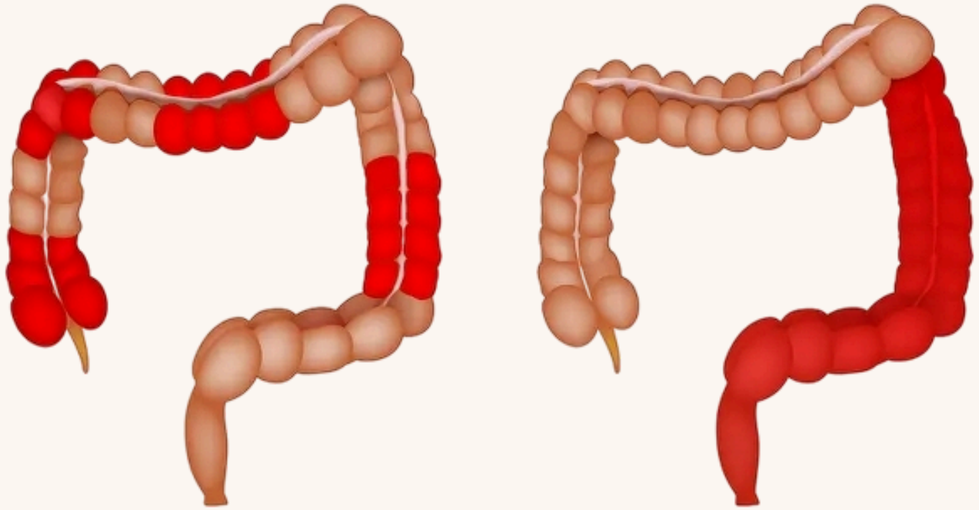
- Understand how IBD affects the gastrointestinal tract , including inflammation and long-term bowel damage.

- Describe the nurse's role in IBD endoscopy, before, during, and after the procedure, focusing on patient safety, comfort, and education.

- Recognize common Signs and symptom of IBD, and identify basic differences between ulcerative colitis and Crohn's disease, including extra-intestinal symptoms.

- Understand IBD surveillance, including when follow-up colonoscopies are needed and their role in preventing colorectal cancer.

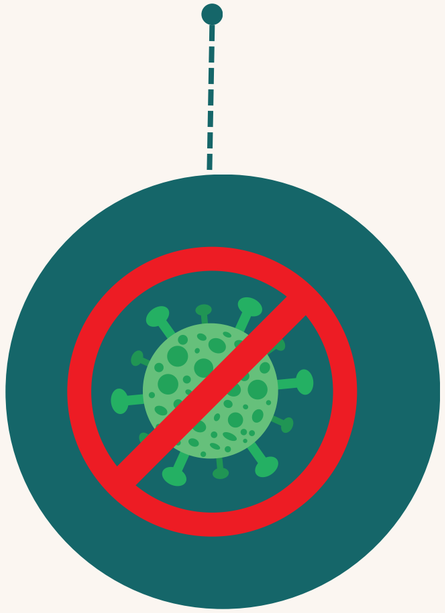
What is IBD?



- Inflammatory Bowel Disease (IBD) is a chronic immune-mediated inflammatory condition of the gastrointestinal (GI) tract that includes ulcerative colitis (UC) and Crohn's disease (CD). It is characterized by continuous or patchy inflammation of the bowel wall.

How Does IBD Occur?

Immune System Dysfunction:
The immune system, which normally fights germs, mistakenly attacks the lining of the intestines, causing inflammation.



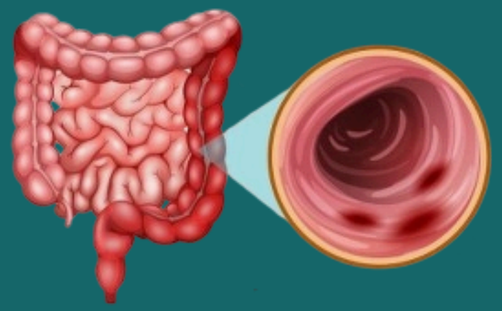
Gut Microbiome: An imbalance or abnormal reaction to normal gut bacteria is suspected.

Environment factors trigger IBD:

- Early Life Factors: Exposure to germs (or lack thereof), infections,
- Smoking (**especially Crohn's disease**) .
- Medications: NSAIDs ,antibiotics
- Stress.
- high Consumption of processed food.

Genetic Predisposition:
IBD is more likely in families where the disease runs specific genes identified that increase risk , but not everyone with a family history develops IBD .

Ulcerative colitis



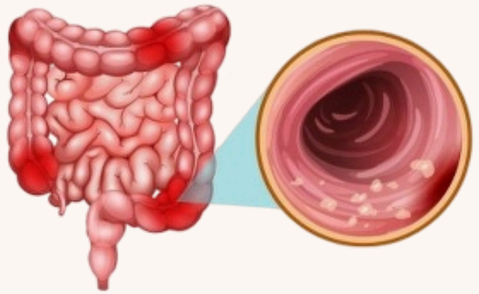
Descripation

Chronic ulceration & inflammation of the **rectum & colon.**

Location

Affects the **large intestine & rectum only**

Crohn’s



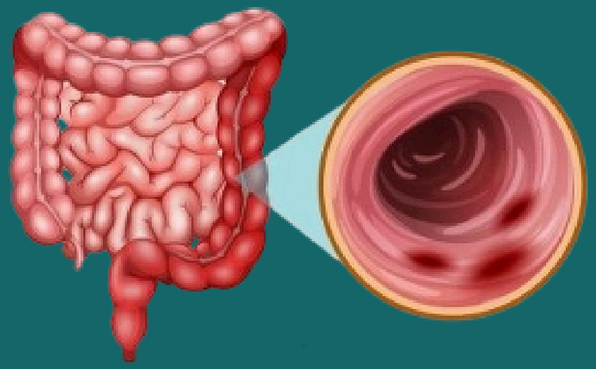
Description

Inflammation of the **gastrointestinal tract wall** at any point through all layers.

Location

Can affect **anywhere in the Gl tract** (mouth to the anus) commenly affect terminal ileum .

Ulcerative colitis



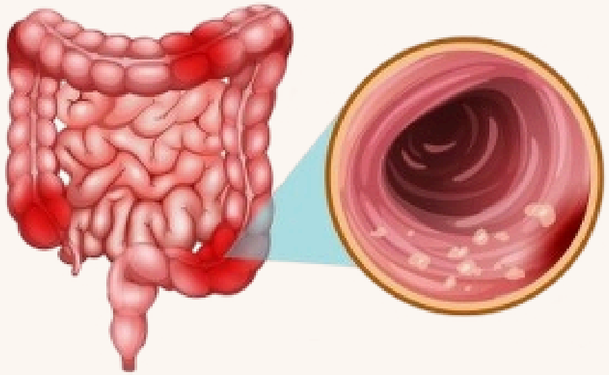
Thickness

Inflammation affects the **submucosa or mucosa**

Appearance

Inflamed areas are **continuous with no patches, pseudopolyps**

Crohn’s



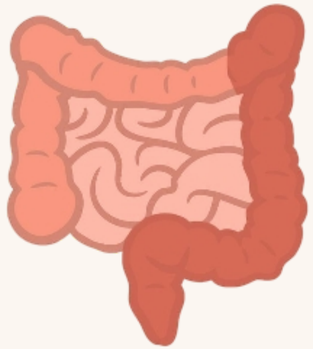
Thickness

Inflammation is **transmural** (occurring across the entire wall)

Appearance

Patches of inflammation throughout the bowel this make **cobblestone** appearance

Signs & Symptoms /Complications :

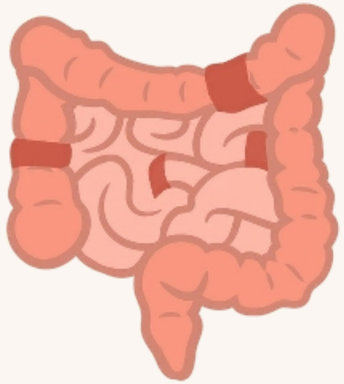


Ulcerative colitis

- Bloody diarrhea (mucus in stool)
- Rectal bleeding.
- **Complications**: Risk of toxic megacolon (swollen colon), perforation.

Common signs & symptoms:

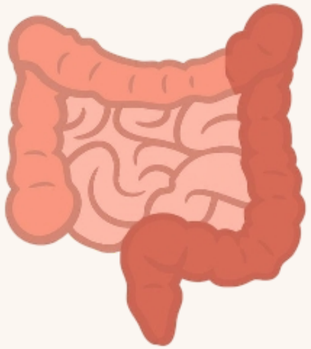
- Abdominal pain & cramping
- Fatigue
- Weight loss and malnutrition
- Fever
- Anemia
- Urgency to pass stool



Crohn’s

- Usually non-bloody diarrhea
- Mouth sores.
- Anal strictures.
- Perianal fistulas (tunnels).
- **Complications**: Intestinal narrowing (strictures) causing blockages.

Extra-intestinal Symptoms :



Joints / Muscles

- Peripheral arthritis → common in both UC and CD; usually flares with bowel disease activity.
- Joint pain and swelling.

Skin

- Erythema nodosum (EN) → occurs in both; often correlates with disease activity.(painful red lumps, usually on legs).
- Skin rashes.

- **3. Eyes**
- Uveitis → can occur in both UC and CD; may not correlate with intestinal activity.
- Red, painful, inflamed eyes.
- Blurred vision.

Liver / Biliary

- Primary sclerosing cholangitis (PSC) → strongly associated with UC (much less common in CD).
- Fatty liver and gallstones → can occur in both, especially CD with ileal disease.

Kidneys / Urinary

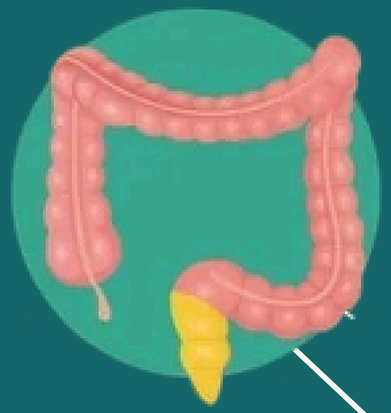
- Kidney stones → more frequent in Crohn's, especially with ileal involvement.

Blood / Clotting

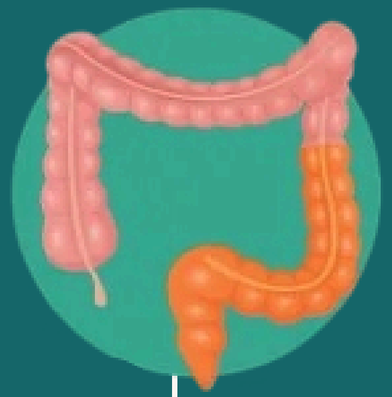
- Risk of thrombosis, anemia → occurs in both UC and CD.

Form of Ulcerative Colitis

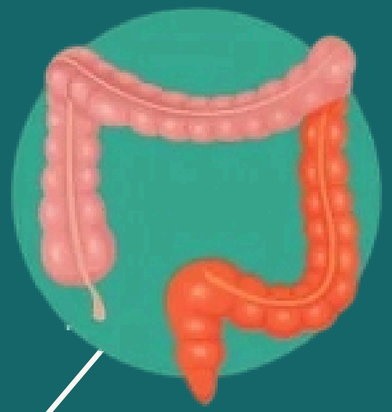
Proctitis



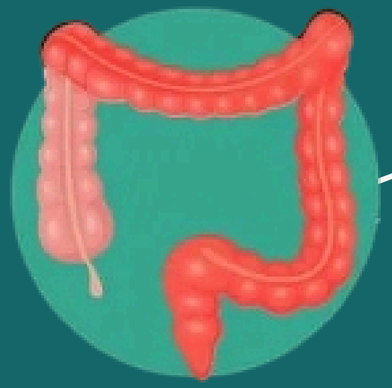
Proctosigmoiditis



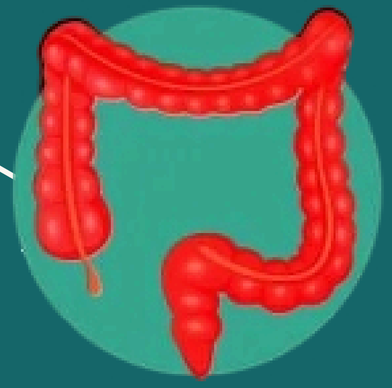
Distal Colitis



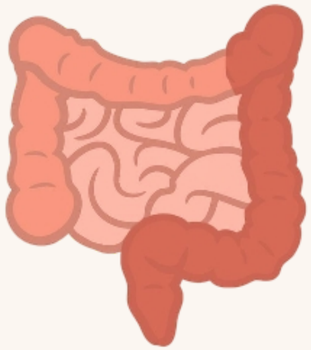
Extensive Colitis



Pancolitis



Treatment and Surgery:



Ulcerative colitis

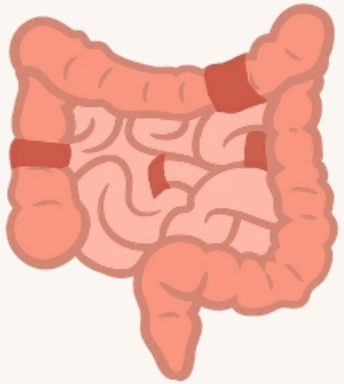
- Surgically removing the colon and rectum, known as **proctocolectomy**, can cure ulcerative colitis.

Medication :

- Anti-inflammatories(e.g. Corticosteroids)
- Immunosuppressants (cyclosporin)
- Antibiotics
- Biologics & Biosimilars
- Antidiarrheals

DIET:

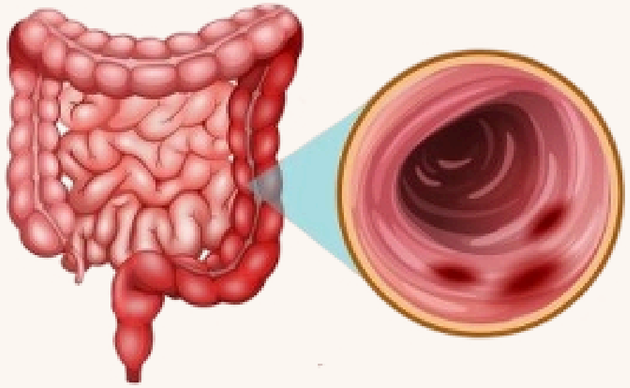
- Low in fat, high in protein & increase fluids



Crohn’s

- Surgery does not cure Crohn's disease. It can come back at the site of the operation. However
- surgery may be used to fix complications, such as blockages, anal fistulas or abscesses

Endoscopic Features



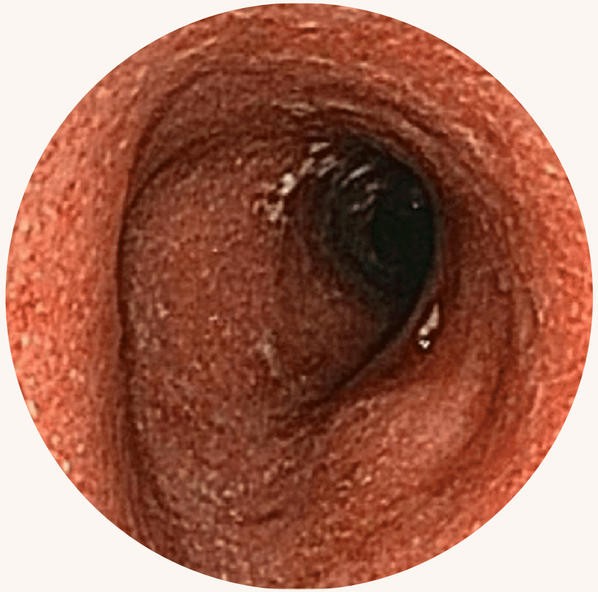
Ulcerative Colitis:

- Continuous disease starting from the rectum and extending proximally.
- Diffuse, uniform inflammation.
- Erythematous, granular mucosa.
- Loss of vascular pattern.
- Superficial ulcers.
- Mucosal friability and spontaneous bleeding.
- Pseudopolyps in long-standing disease.

Endoscopic Features

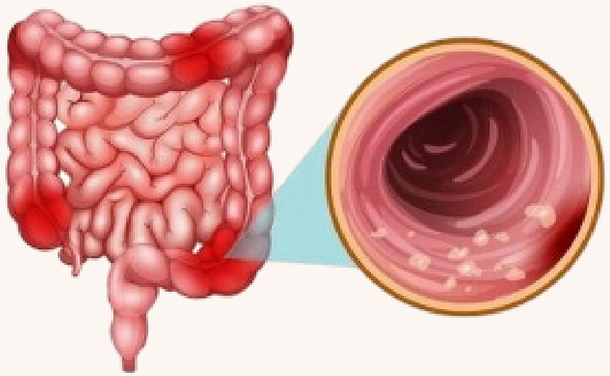
Pseudopolyps

Superficial ulcers



Loss of vascular pattern

Endoscopic Features

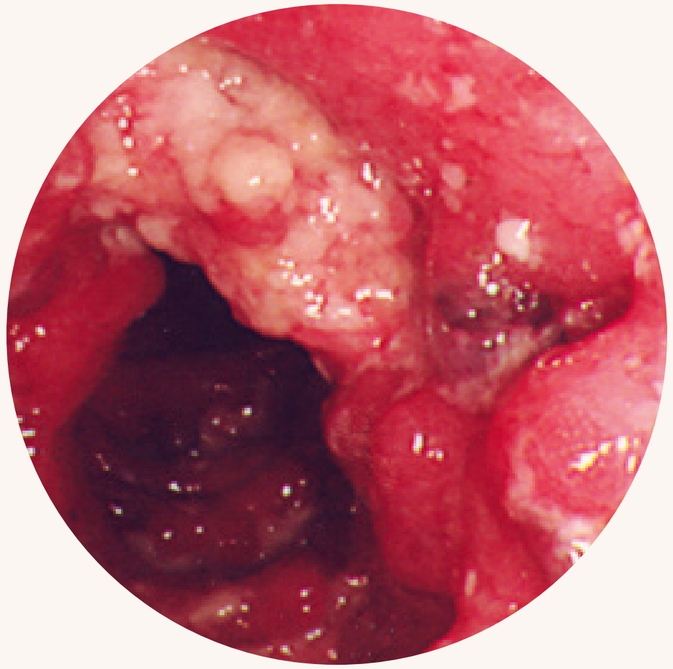


Crohn’s Disease:

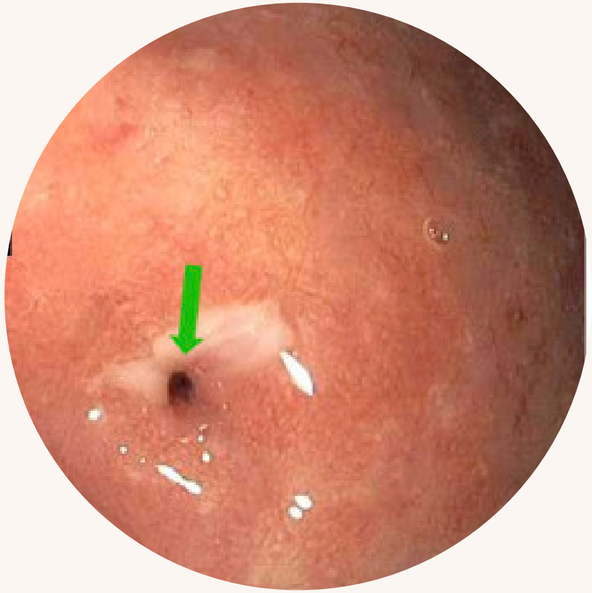
- Discontinuous (skip) lesions.
- Patchy, focal inflammation.
- Deep, longitudinal and aphthous ulcers.
- Cobblestone appearance (due to ulcers with intervening edematous mucosa).
- Normal mucosa between lesions.
- Ileocecal involvement common.
- Strictures and fistula openings may be seen.

Endoscopic Features

Cobblestone

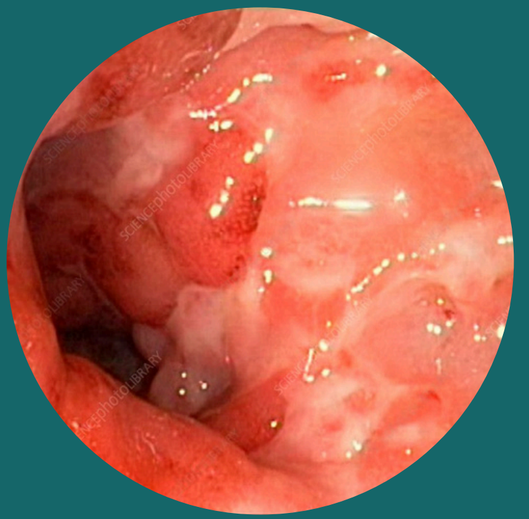


Deep ulcer



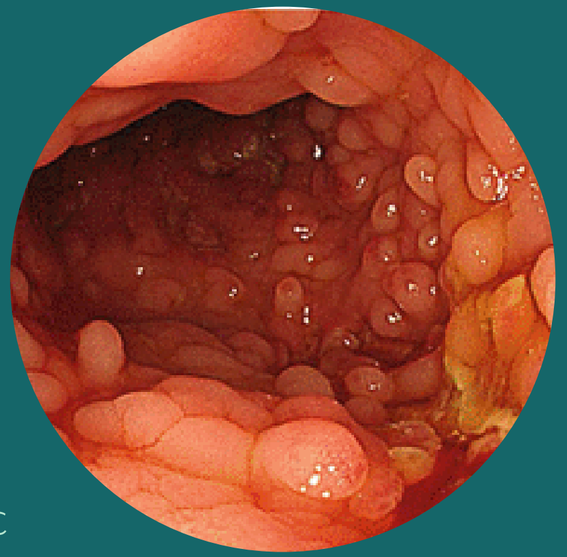
Fistulas

Pre-Procedure Endoscopic Nursing Role



- **Assess indication for endoscopy (diagnosis, surveillance, complications).**
- **Evaluate disease severity** including (frequency of bleeding, pain, fever, prior hospitalization).
- **Review current medications,** especially steroids, biologics, immunosuppressants, NSAIDs, and anticoagulants.
- **Assess infection risk,** particularly **Clostridioides difficile** in patients with disease flare**.**
- **Check hydration, anemia, and nutritional status.**
- **Ensure bowel preparation is used cautiously,** as the inflamed colon may be fragile.
- **Provide psychological reassurance,** as many IBD patients undergo frequent endoscopic procedures **.**

Intra-Procedure Endoscopic Nursing Role



- Monitor oxygen saturation, blood pressure, and sedation carefully, especially in malnourished or anemic patients.
- Ensure gentle endoscopic technique, with preference for CO_2 insufflation.
- Avoid over-distension due to fragile inflamed mucosa.
- Be prepared to assist during surveillance colonoscopy where chromoendoscopy and multiple biopsies are often required.
- Be caution with strictures because of perforation risk.
- Avoid full colonoscopy in acute sever ulcerative colitis or toxic megacolon. Limited flexible sigmoidoscopy is safer in these cases.

Poste-Procedure Endoscopic Nursing Role

- **Monitor for complication** including bleeding, severe abdominal pain, tachycardia, hypotension, abdominal distension, or fever.
- **Educate the patient** to seek urgent care if any severe symptoms occur after discharge .
- **Reinforce medication adherence** and provide clear follow up instructions.
- **Document the procedure**, patient tolerance, biopsy taken, and any complications.

IBD Surveillance :

Condition	Start time
Ulcerative Colitis (beyond rectum)	8 years after symptom onset
Crohn’s Disease with colonic involvement ⩾1/3 of colon	8 years after symptom onset
Proctitis only	Not required
Primary Sclerosing Cholangitis (PSC)	Immediately at PSC diagnosis then yearly

IBD Surveillance :

Risk Level	Interval	Interval Criteria
Low risk	Every 5 years	Every 5 years Mild disease, no family history, no PSC, no dysplasia, quiescent inflammation
Intermediate Risk	Every 3 years	Moderate inflammation, family history (>50 yrs), post-inflammatory polyp
High Risk	Every 1 year	PSC, severe inflammation, stricture, previous dysplasia, strong family history (<50 yrs)

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Thank you for listening