

# Appendicitis

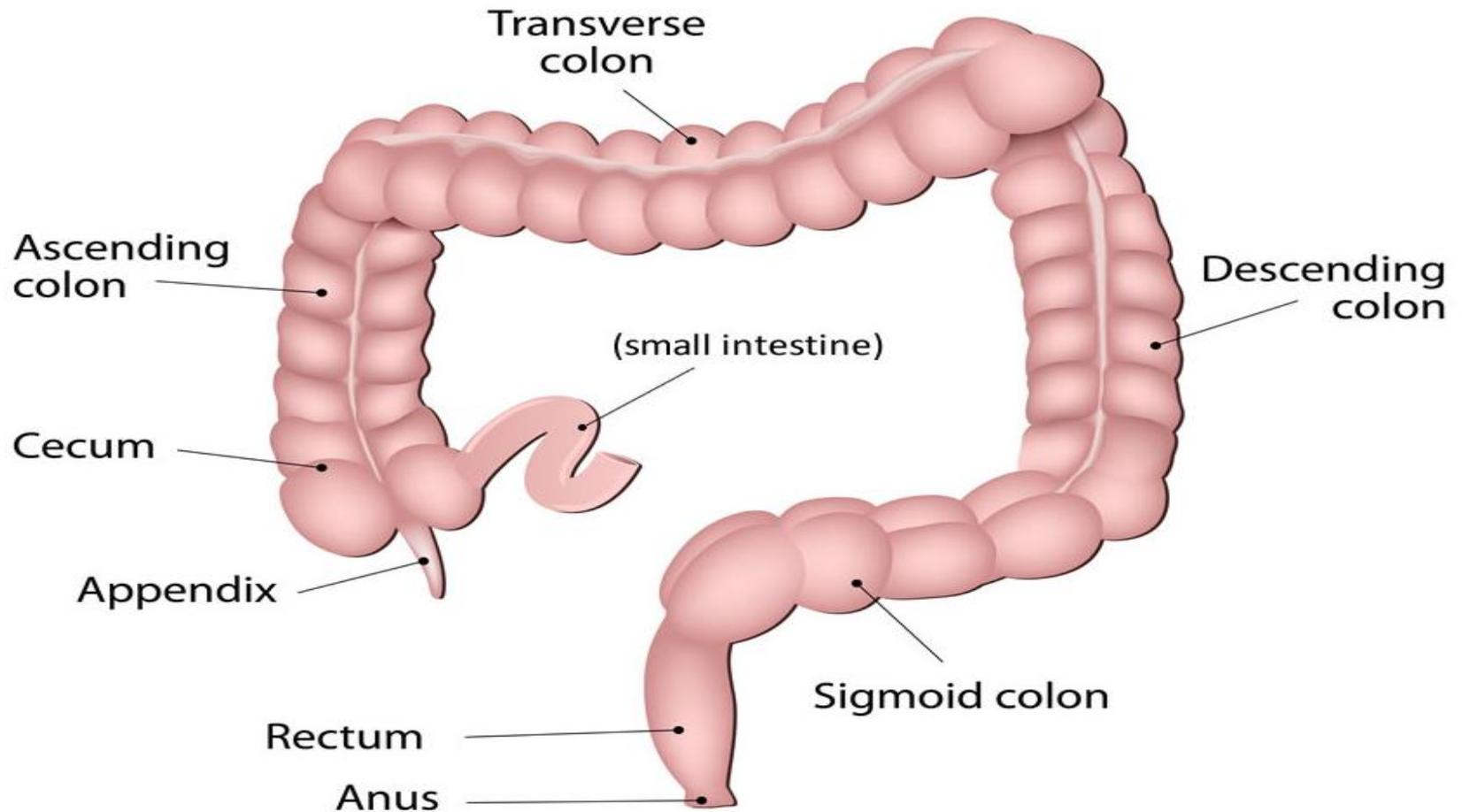
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**2<sup>nd</sup> stage (Adult Nursing 1)**

# Introduction

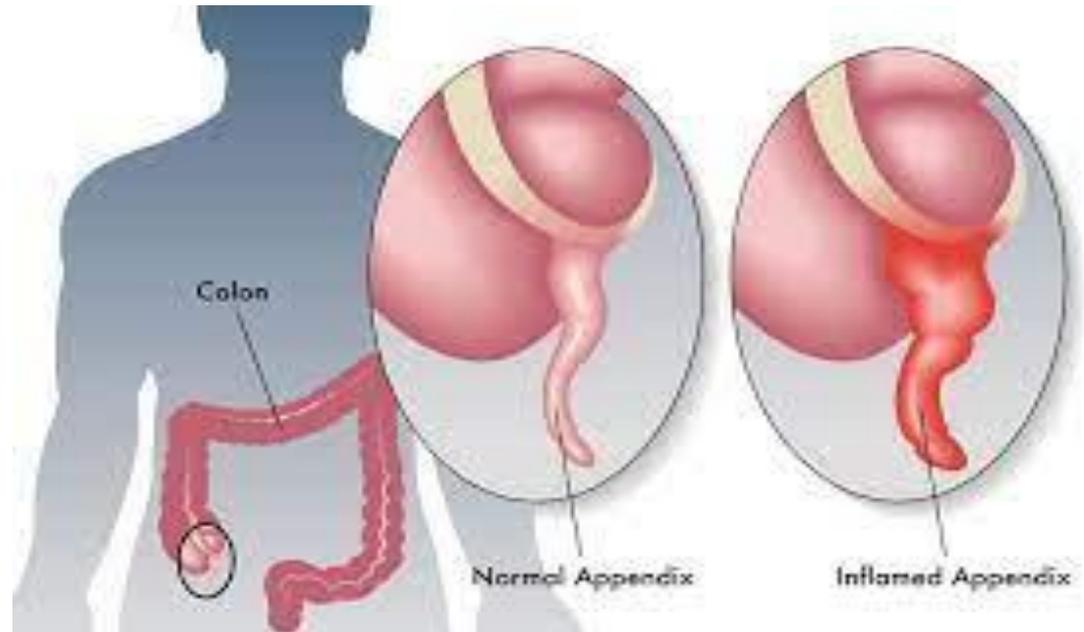
- ✓ The **appendix** is a small, fingerlike appendage about 10 cm (4 in) long that is attached to the cecum just below the ileocecal valve.
- ✓ The appendix fills with food and empties regularly into the cecum.
- ✓ Because it empties inefficiently and its lumen is small, the appendix is prone to obstruction and is
- ✓ particularly vulnerable to infection (ie, *appendicitis*).

# Anatomy of appendix



# Definition:

- **Appendicitis** is inflammation of the vermiform appendix caused by an obstruction of the intestinal lumen from infection, stricture, fecal mass, foreign body, or tumor.



## Pathophysiology/Etiology

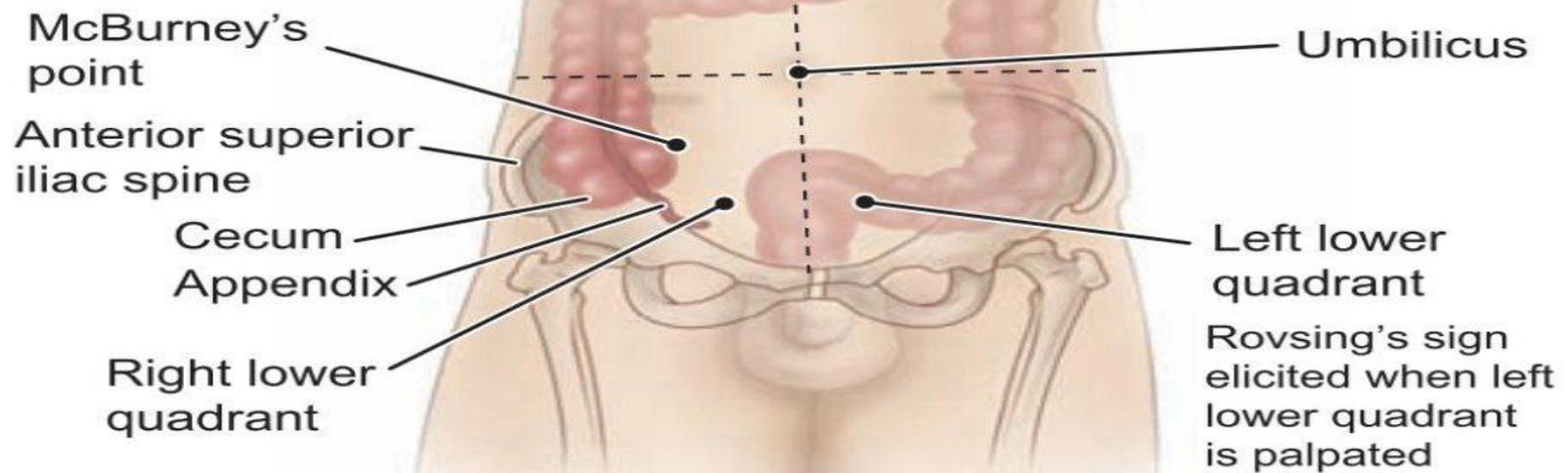
The appendix becomes **inflamed** and **edematous** as a result of becoming kinked or occluded by a **fecalith** (ie, hardened mass of stool), **tumor**, or **foreign body**.

The inflammatory process increases intraluminal pressure, initiating a progressively severe, generalized, or **periumbilical pain** that becomes localized to the right lower quadrant of the abdomen within a few hours.

Eventually, the inflamed appendix fills with **pus**.

## Clinical Manifestations

- 1) **A**bdominal pain (generalized or localized) in the epigastric or periumbilical areas and the upper right abdomen. Within 2 to 12 hours, the pain localizes in the right lower quadrant and intensity increases.
- 2) **L**ocal tenderness at the mc Burny's point.
- 3) **R**ebound tenderness, involuntary guarding.
- 4) **R**ovsing's sign by palpating left lower quadrant cause pain in the right lower quadrant.
- 5) **A**norexia, moderate malaise, mild fever, nausea and vomiting.
- 6) **C**onstipation occurs; occasionally diarrhea.
- 7) **I**f appendix ruptures, pain becomes more diffuse, abdominal distension from paralytic ileus and the condition worsen



**Figure 38-3** When the appendix is inflamed, tenderness can be noted in the right lower quadrant at McBurney's point, which is between the umbilicus and the anterior superior iliac spine. Rovsing's sign is pain felt in the right lower quadrant after the left lower quadrant has been palpated.

## Diagnostic Evaluation



**Physical examination** consistent with clinical manifestations.

**White blood cell (WBC)** count reveals moderate leukocytosis (10,000 to 16,000/mm) with shift to the left (increased neutrophils).

**Abdominal x-ray** may visualize shadow consistent with fecalith in appendix.

# Management

## ✓ Surgery

- A. Simple **appendectomy** or laparoscopic appendectomy.
- B. Preoperatively maintain bed rest, NPO status, IV hydration, possible antibiotic prophylaxis, and analgesia.

## ✓ Complications

1. **Perforation (in 95% of cases)**
2. **Abscess**
3. **Peritonitis**

## ○ Nursing Assessment

- 1) Obtain history for location and extent of pain.
- 2) Auscultate for presence of bowel sounds; peristalsis may be absent or diminished.
- 3) On palpation of the abdomen, assess for tenderness anywhere in the right lower quadrant, but often localized over McBurney's point (point just below midpoint of line between umbilicus and iliac crest on the right side).
- 4) Assess for rebound tenderness in the right lower quadrant as well as referred rebound when palpating the left lower quadrant.
- 5) Assess for positive psoas sign by having the patient attempt to raise the right thigh against the pressure of your hand placed over the right knee. Inflammation of the psoas muscle in acute appendicitis will increase abdominal pain with this maneuver.
- 6) Assess for positive obturator sign by flexing the patient's right hip and knee and rotating the leg internally. Hypogastric pain with this maneuver indicates inflammation of the obturator muscle.

## □ Nursing Diagnoses :

1. Pain related to inflamed appendix
2. Risk for Infection related to perforation

# ○ Nursing Interventions

## ○ A. Relieving Pain

- 1) Monitor pain level, including location, intensity, pattern.
- 2) Assist patient to more comfortable positions, such as semi-Fowler's and knees up.
- 3) Restrict activity that may aggravate pain, such as coughing and ambulation.
- 4) Apply ice bag to abdomen for comfort.
- 5) Give analgesics only as ordered after diagnosis is determined.
- 6) Avoid indiscriminant palpation of the abdomen to avoid increasing the patient's discomfort.
- 7) Do not give antipyretics to mask fever and do not administer cathartics, because they may cause rupture.

## **B. Preventing Infection**

- 1) Monitor frequently for signs and symptoms of worsening condition indicating perforation, abscess, or peritonitis: increasing severity of pain, tenderness, rigidity, distention, ileus, fever, malaise, tachycardia.
- 2) Administer antibiotics as ordered.
- 3) Promptly prepare patient for surgery.

## □ Evaluation

1. Verbalizes increased comfort with positioning and analgesics.
2. Afebrile; no rigidity or distention.



Thank  
you