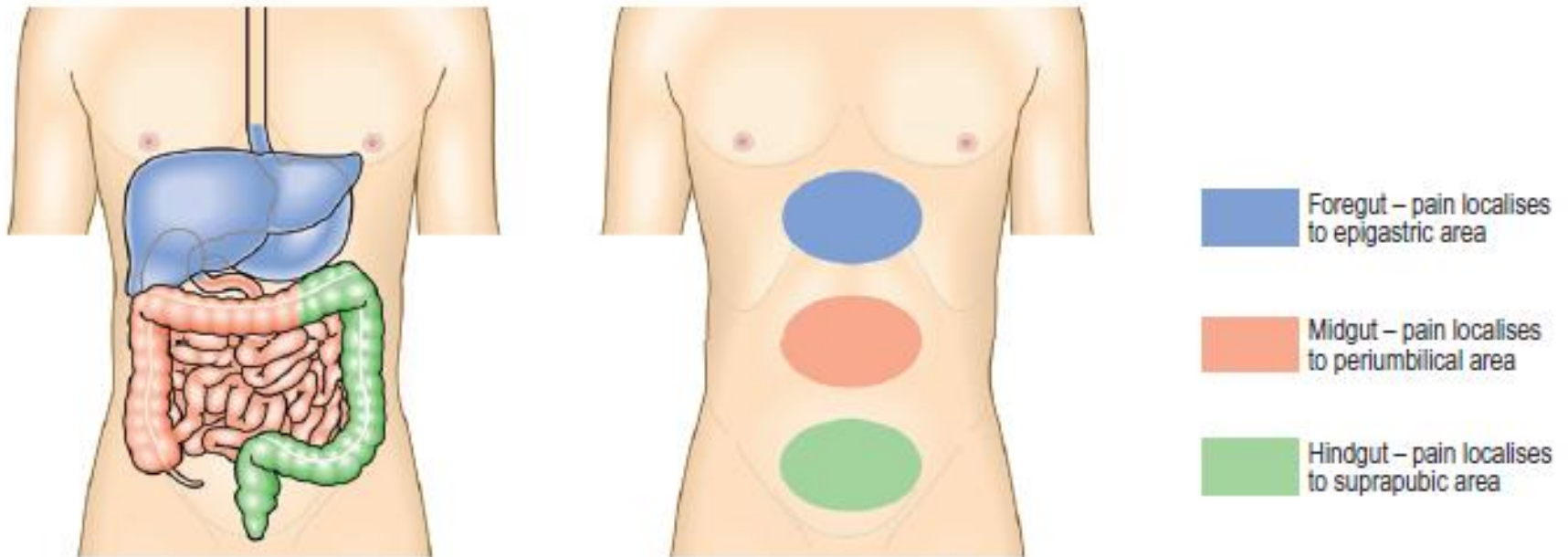




# Abdeljooth Emara Aref

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MD, GENERAL AND MINIMALLY INVASIVE  
SURGERY  
GI SURGERY  
IMRCS  
JB AND AB1

# Abdominal Pain



**Fig. 8.5 Abdominal pain.** Perception of visceral pain is localised to the epigastric, umbilical or suprapubic region, according to the embryological origin of the affected organ.

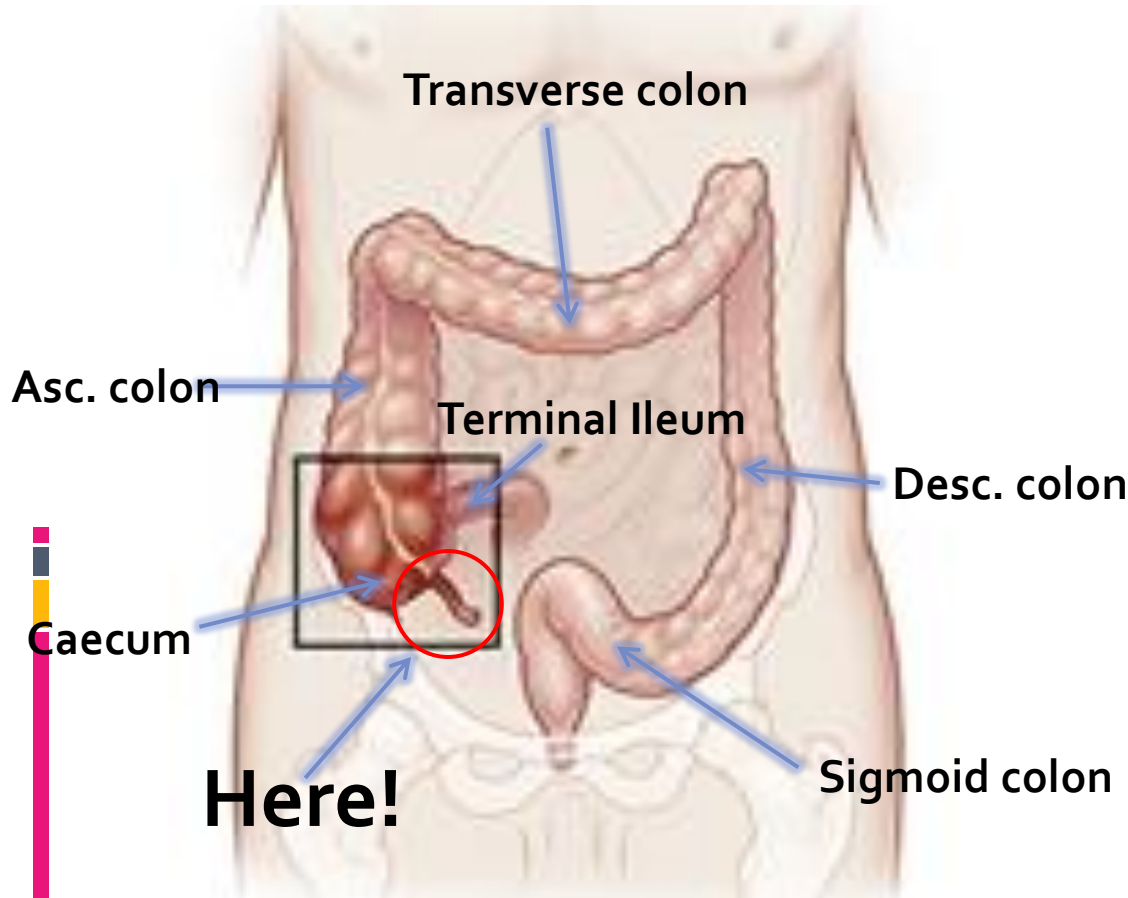
# Acute Appendicitis

- Appendicitis is common- **7-9% lifetime risk**
- Mostly young people but can present at any age.
- Delay in diagnosis/management causes significant morbidity-
- Usually clinical diagnosis- not reliant on imaging
- Has classic presentation but often presents atypically- it is a common pitfall!

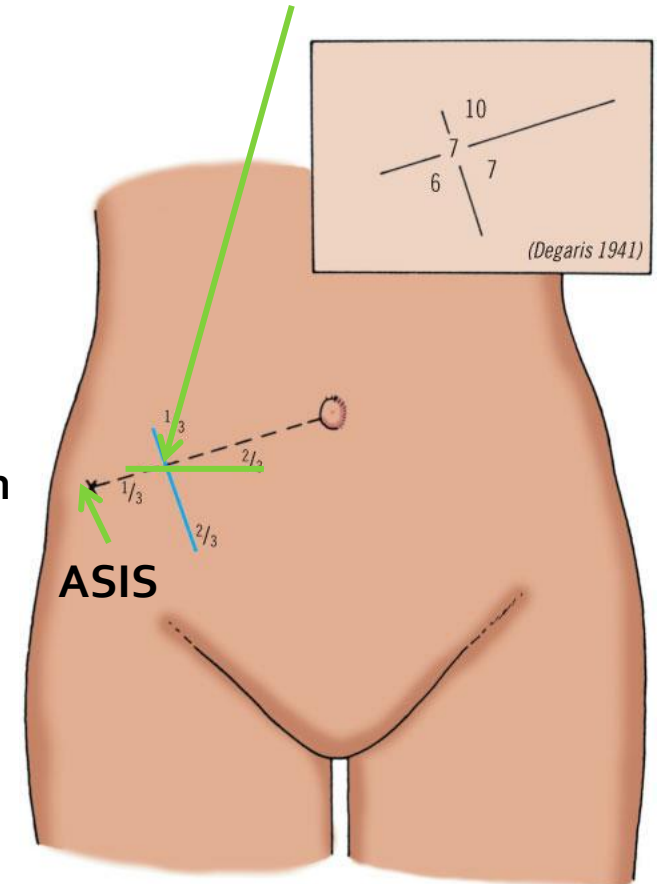


# Anatomy

## 1. The Appendix is...

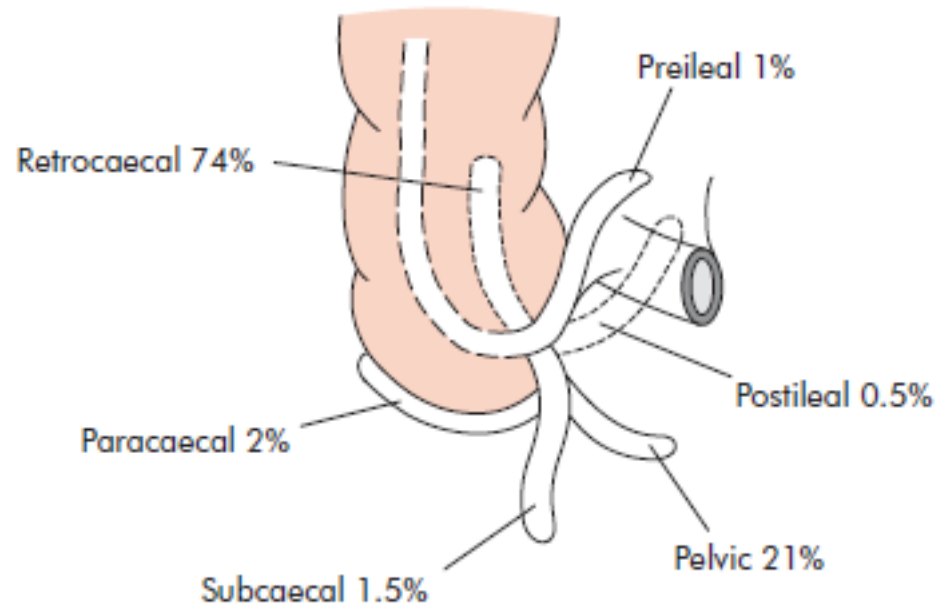


## 2. McBurney's Point





# Anatomy





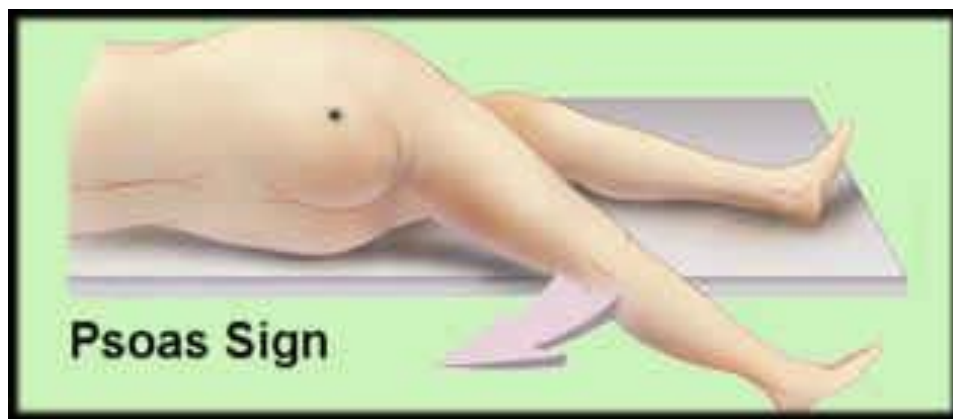
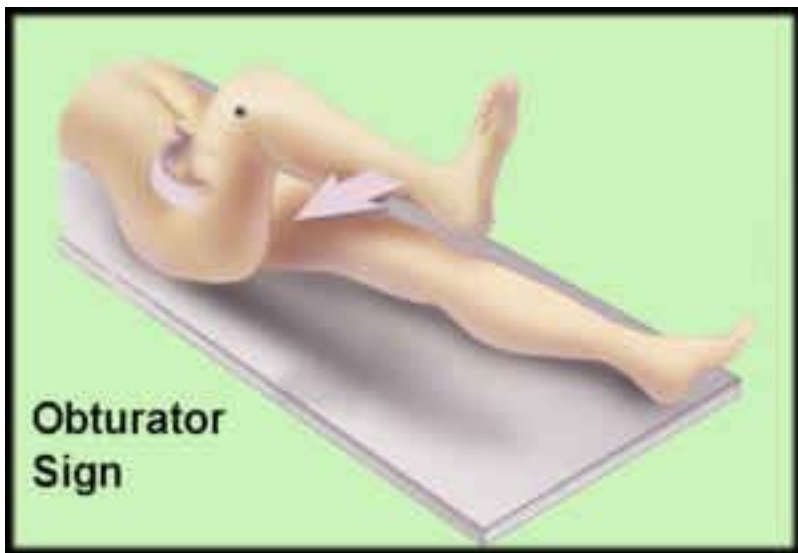
## Symptoms

- **Peri-umbilical colic**
- **Pain shifts to the right iliac fossa**
- Anorexia
- Nausea

## Signs

- Pyrexia (37.2–37.7°C)
- Localised tenderness in the right iliac fossa
- Muscle guarding
- **Rebound tenderness**

- **Pointing sign** (patient is asked to point where the pain began and where it moved)
- **Rovsing's sign** (deep palpation of the left iliac fossa may cause pain in the right iliac fossa)
- **Psoas sign** (patient will lie with the right hip flexed for pain relief)
- **Obturator sign** (the hip is flexed and internally rotated. If an inflamed appendix is in contact with the obturator internus, this manoeuvre will cause pain in the hypogastrium)



# Investigation





# Diagnostic Scoring

- Diagnosis is essentially clinical;
- A number of clinical and laboratory-based scoring systems have been devised to assist diagnosis.
- The most widely used is Alvarado score.

# The Alvarado (MANTRELS) Score

	Score
<b>Symptoms</b>	
• Migratory RIF pain	1
• Anorexia	1
• Nausea and vomiting	1
<b>Signs</b>	
• Tenderness (RIF)	2
• Rebound tenderness	1
• Elevated temperature	1
<b>Laboratory</b>	
• Leucocytosis	2
• Shift to the left (segmented neutrophils)	1
<b>TOTAL</b>	<b>10</b>

1-4: Very unlikely

5-6: Possible

7-8: Very probable

9-10:

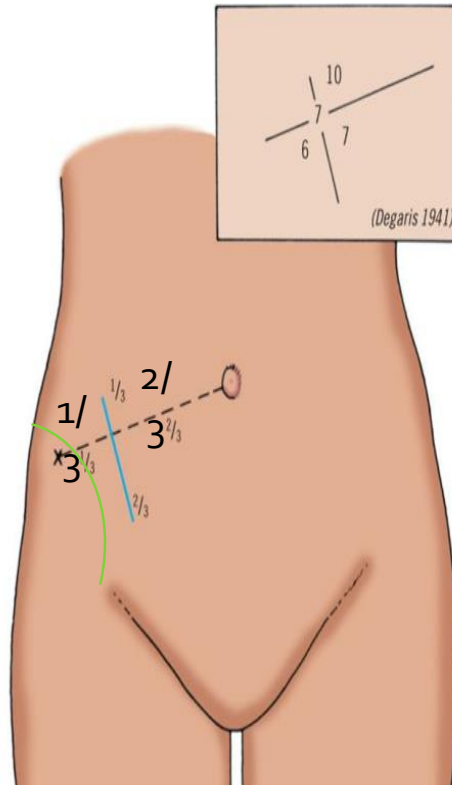
Definite

- < 5 is strongly against a diagnosis of appendicitis
- **7 or more is strongly predictive of acute appendicitis**
- In patients with an equivocal score of 5 or 6, abdominal USG or contrast-enhanced CT scan is used to further reduce the rate of negative appendicectomy

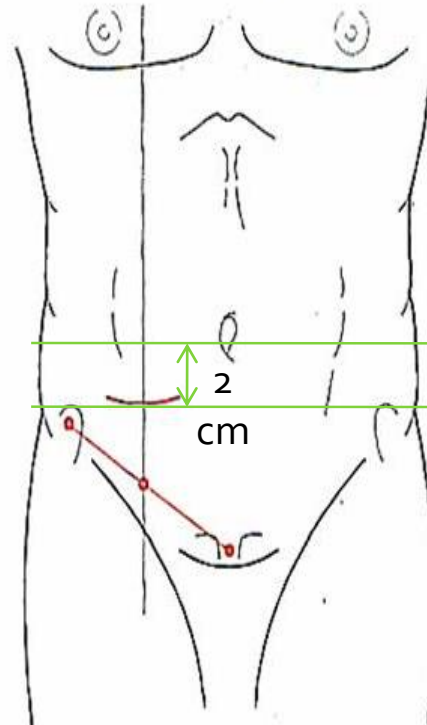
# Treatment

- Intravenous fluids
- Appropriate antibiotics
- Appendicectomy

# Conventional Appendicectomy



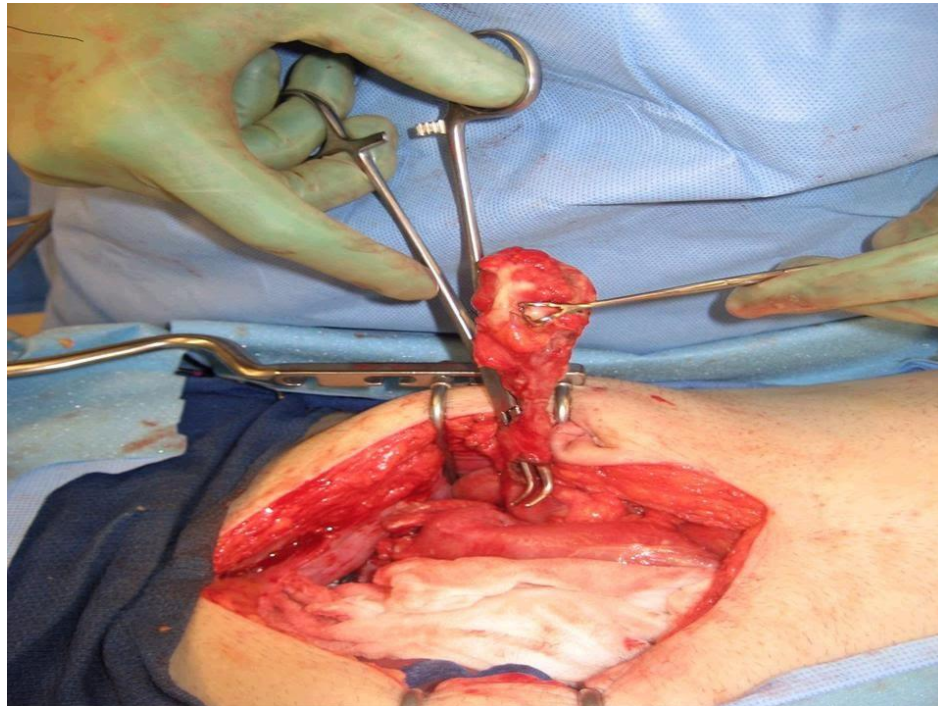
**Gridiron incision :**  
right angles to a line  
joining the ASIS to the  
umbilicus. Centred on  
McBurney's point



**Lanz incision :** 2 cm  
below the umbilicus  
centred on the mid-  
clavicular-midinguinal  
line

# Appendicectomy - Open

- Longer recovery, risk of hernia & adhesions, can't see pelvic structures as well



# Appendicectomy - Laparoscopic

- “Keyhole” surgery
- Lower complication rate, quicker recovery





**"Ever see gallstones like that before?"**

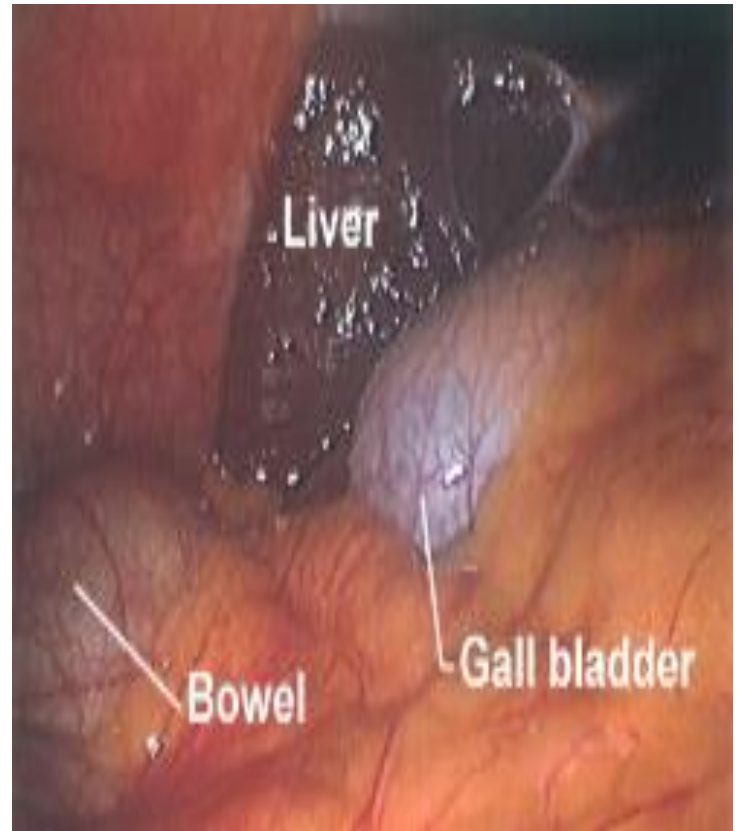
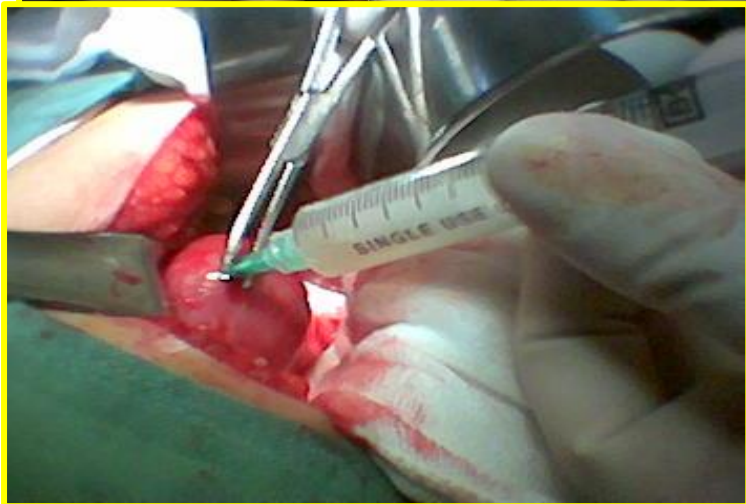
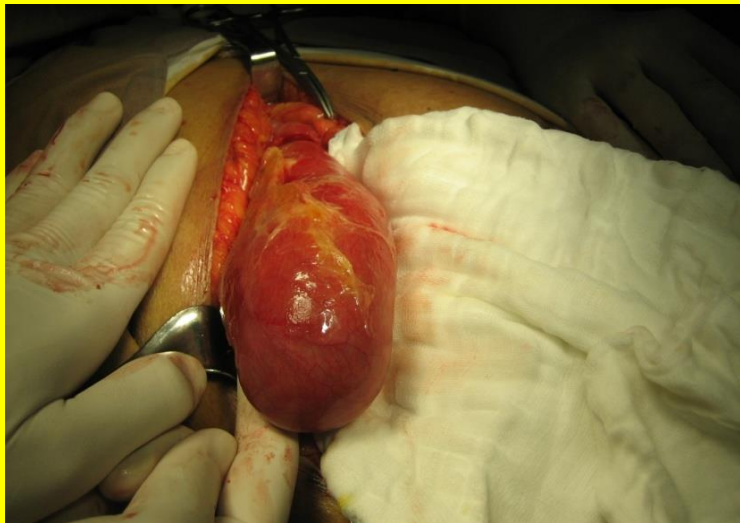
# Cholelithiasis

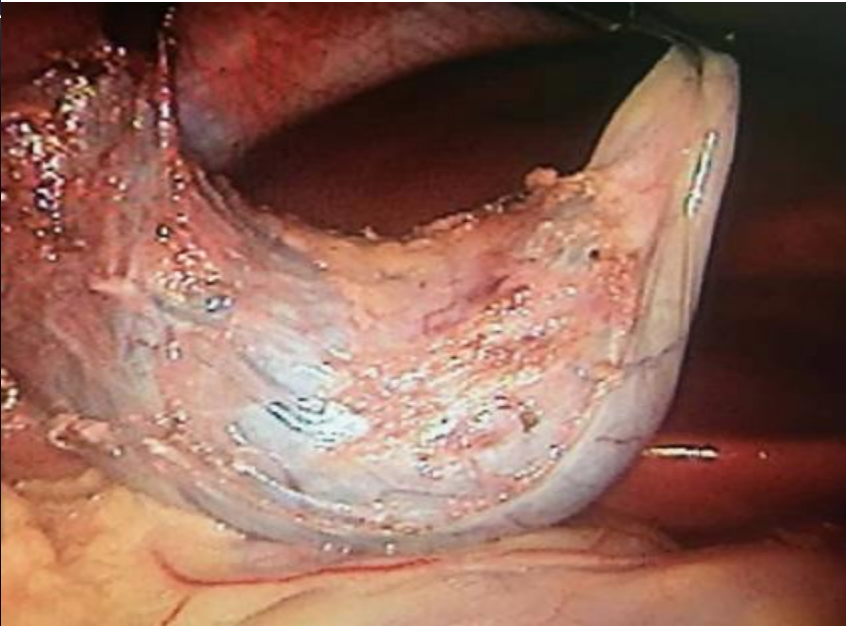
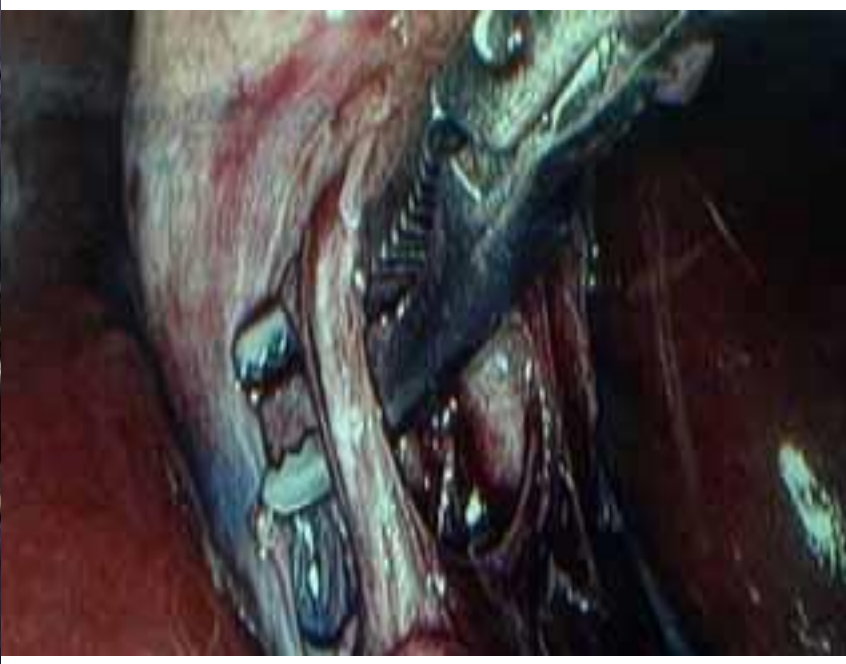




# Laparoscopic vs. Open Cholecystectomy











# Cholelithiasis

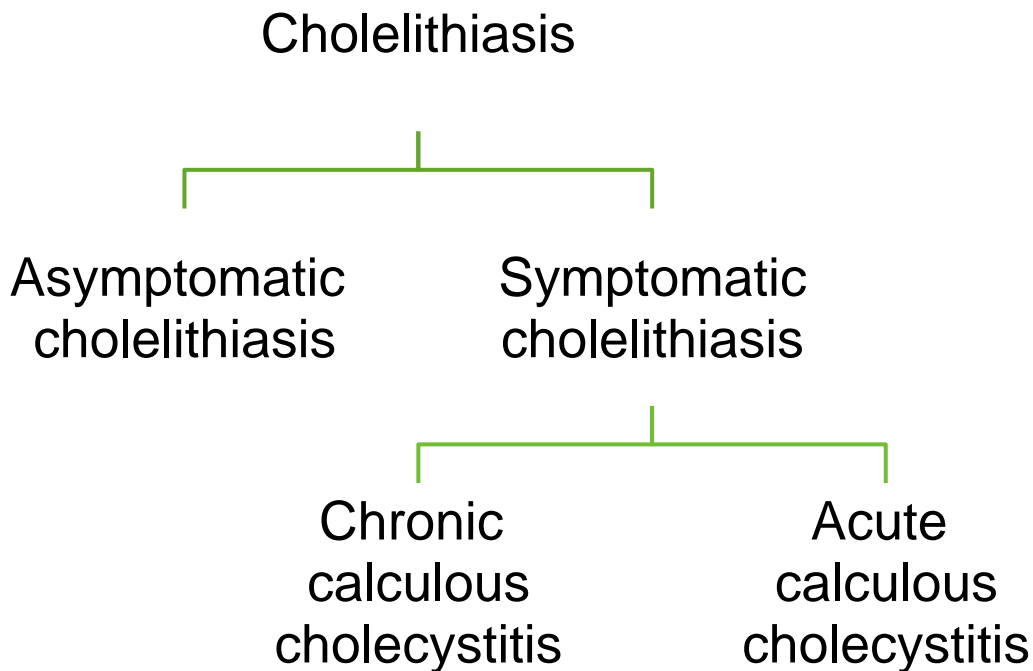
- Formation represents failure to maintain bile components (cholesterol, Ca, bile pigments) in a solubilized state
- Majority of those with stones are asymptomatic
- 1-2% of asymptomatic individuals develop symptoms per year
- Approx 65% of asymptomatic patients remain symptom free after 20 years



# Types of Gallstones

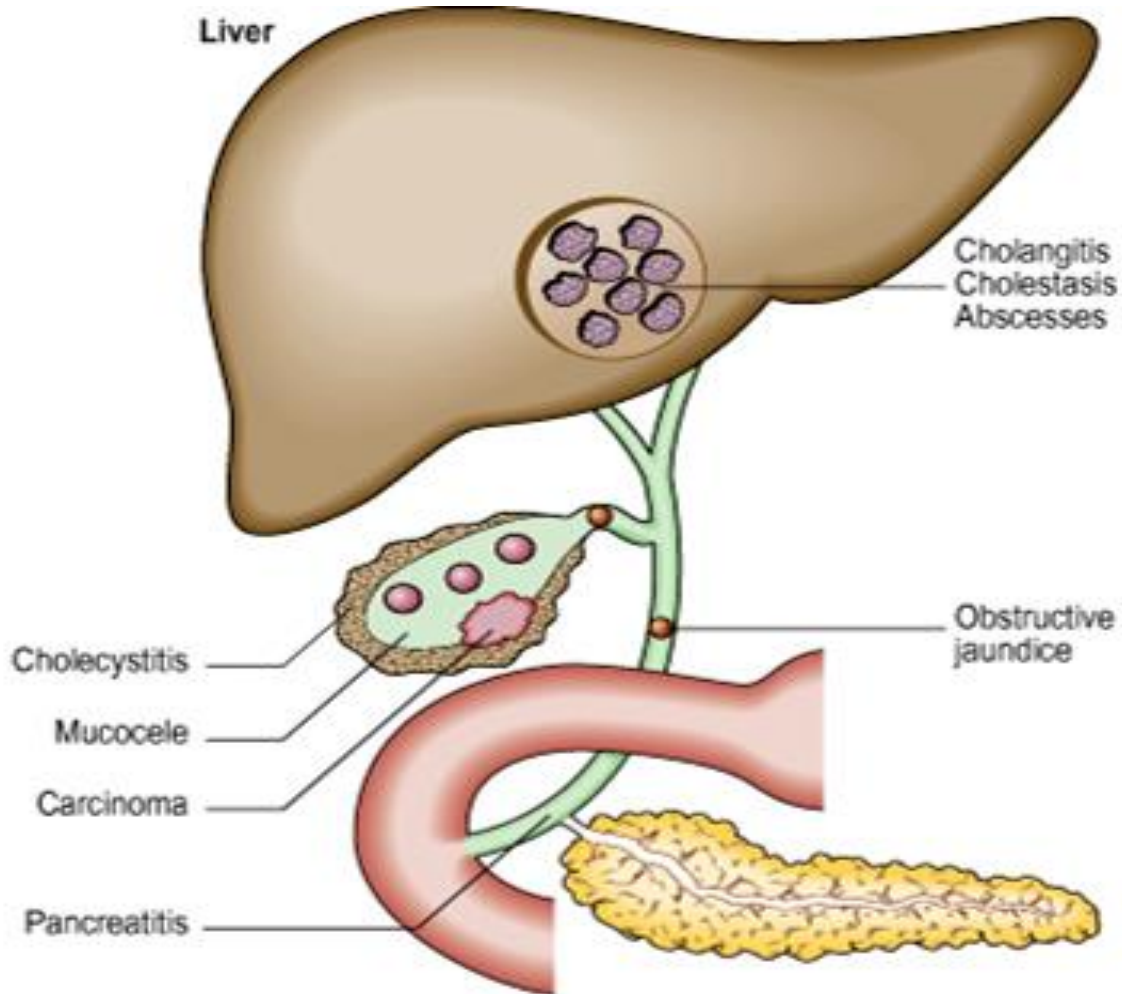
- Mixed (80%)
- Pure cholesterol (10%)
- Pigmented (10%)
  - Black stones (contain Ca bilirubinate, a/w cirrhosis and hemolysis)
  - Brown stones (a/w biliary tract infection) are more common in southeast Asia, where biliary parasites, including *Clonorchis sinensis*, *Opisthorchis viverrini*, and *Ascaris lumbricoides*, are endemic.

# Spectrum of Gallstone Disease



- Symptomatic cholelithiasis can be a herald to:
  - Biliary colic
  - acute cholecystitis
  - chronic cholecystitis

# Cholelithiasis





# Clinical presentations

- Asymptomatic Gallstones
- Biliary colic
- Acute Cholecystitis
- Hydrops of the Gallbladder
- Mirizzi syndrome
- Empyema of the gallbladder
- Choledocholithiasis
- Cholangitis
- Gallstone ileus
- Acalculous cholecystitis
- Oriental Cholangio-hepatitis





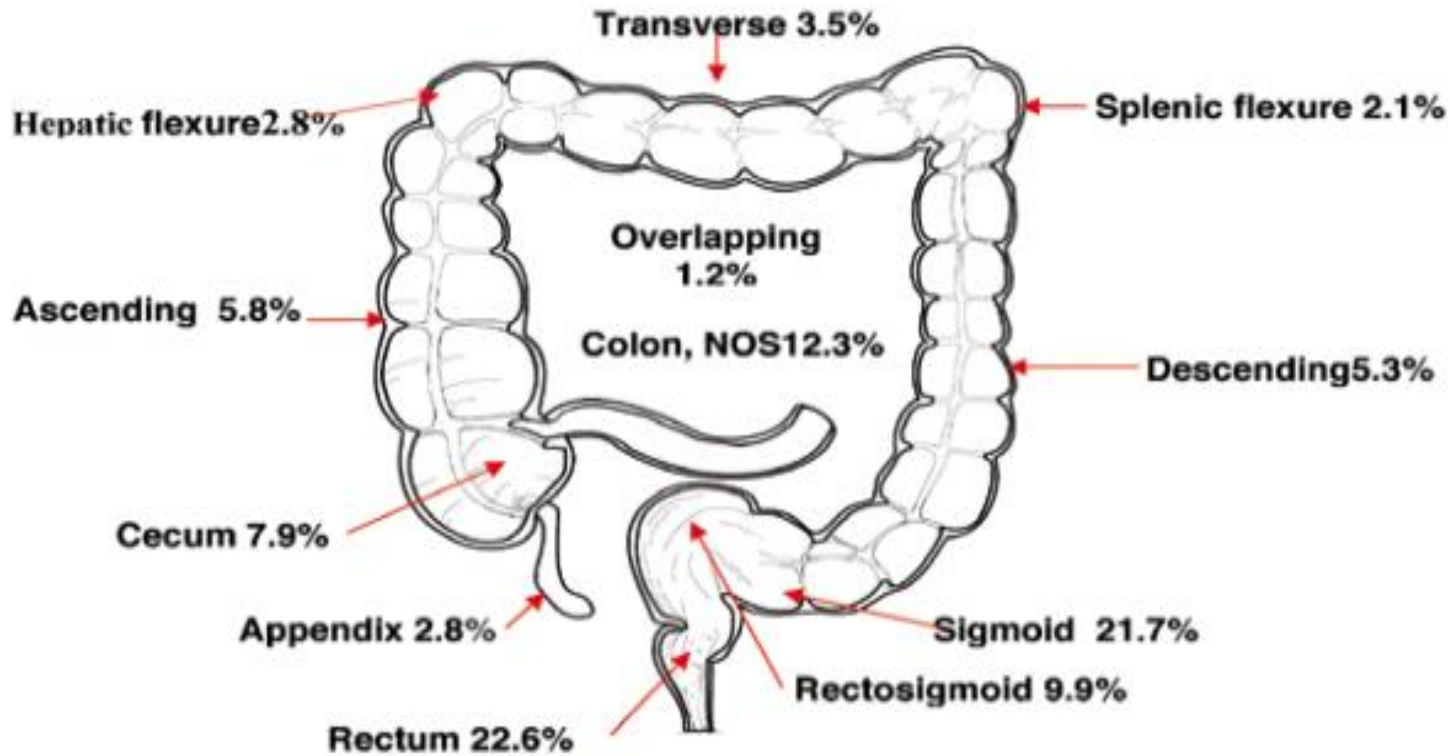
# COLORECTAL CANCER



# Colorectal Cancer

- Colorectal cancer (CRC) is the second most common cancer in Jordanian adults.
- Leading cancer incidence in Jordan.
- Globally 800,000 new CRCs occur each year, accounting for 10% of all incident cancers with 450,000 deaths/year

# Distribution of Colorectal cancer by topography ,Jordan - 2012



# ETIOLOGY

- Environmental & dietary factors
- Male sex
- Excessive BMI
- Red meat ,animal fat, smoking and alcohol
- Protective effect of dietary fiber
- Low folate consumption
- Family history of colorectal cancer
- Personal history of colorectal cancer, ovary, endometrial, breast
- Neoplastic polyps
- IBD
- **Hereditary Conditions (FAP, HNPCC)**



# ||| Symptoms of Colorectal Cancer

- A change in bowel habits
- Bright red or dark blood in the stool
- Stools that appear narrower or thinner than usual
- Discomfort in the abdomen, including frequent gas pains, bloating, fullness, and cramps
- Unexplained weight loss, constant tiredness, or unexplained anemia (iron deficiency)



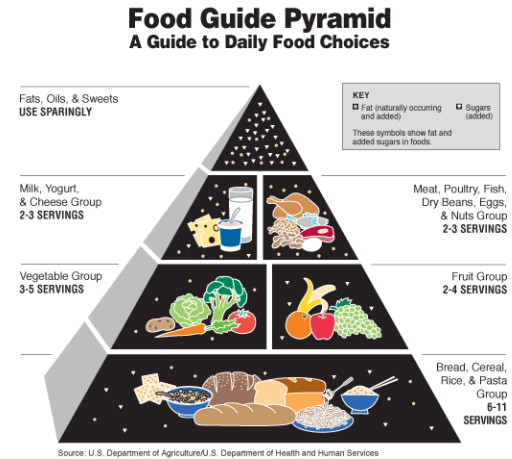
## 5 yr survival after curative resection of CRC



	T1N0M0	}	Stage I	80-95%
	T2N0M0		Stage II	70-75%
	T3N0M0			
Node +	TxN1M0		Stage III	30-65%
Distant Mets	TxNxM1		Stage IV	<5%

# Colon Cancer Preventions

- Colon cancer can be prevented and cured through early detection
- Changing your eating habits( more fiber and less fats)
- Don't smoke and drink less



# SCREENING GUIDELINES

- Screening for asymptomatic men and women at age 50, using a menu of screening options.
- Mortality rates have been declining for the past 2 decades, largely attributable to the contribution of screening to prevention and early detection.







# Recommended CRC screening tests

1. Annual high-sensitivity gFOBT or FIT, following the manufacturer's recommendations for specimen collection
2. FSIG every 5 years
3. Colonoscopy every 10 years
4. Double-contrast barium enema every 5 years
5. CT colonography every 5 years.

Stool DNA testing, which also was among the recommended options in the 2008 update, is no longer commercially available for screening.

# Sigmoidoscopy/Colonoscopy

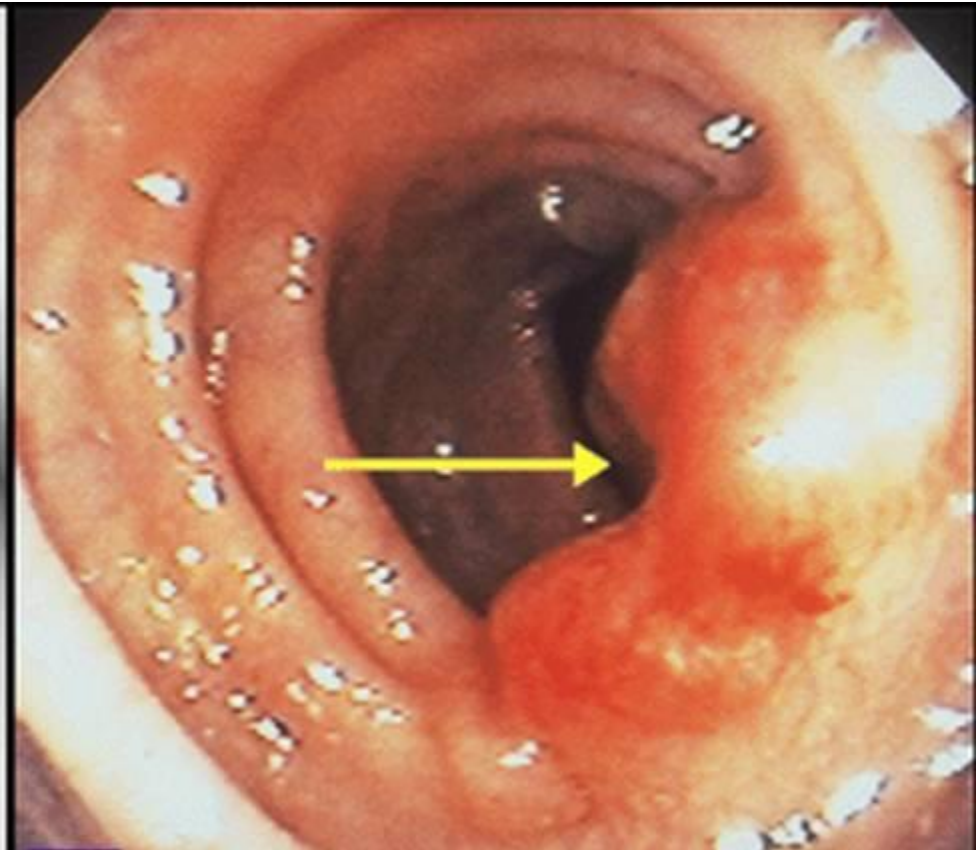
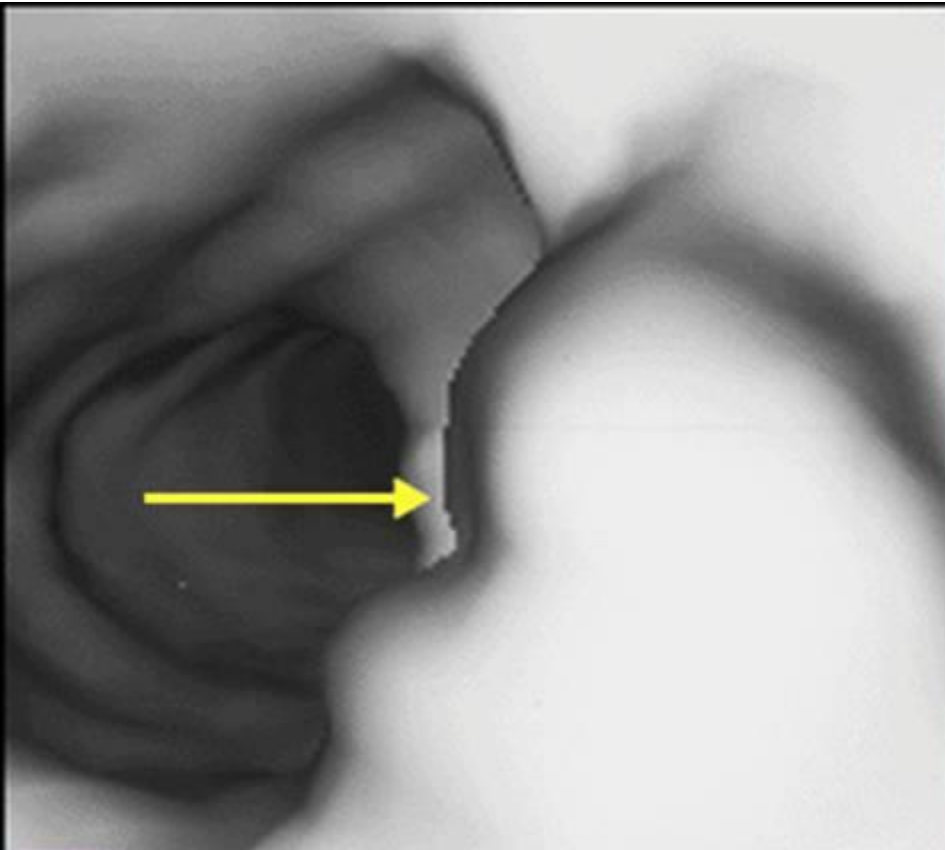


"You don't need a colonoscopy, but I'm sending you for one because, quite frankly, I don't like you."



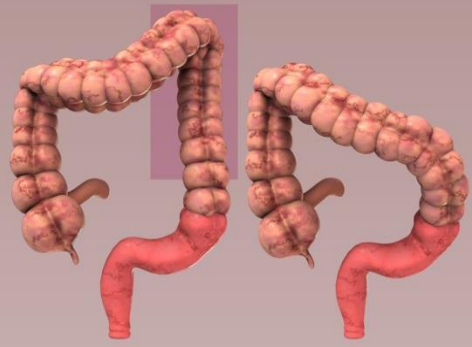
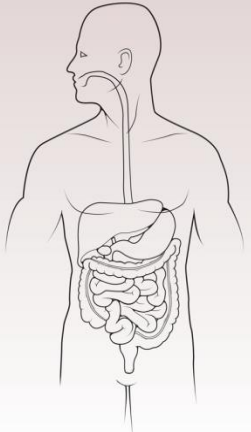
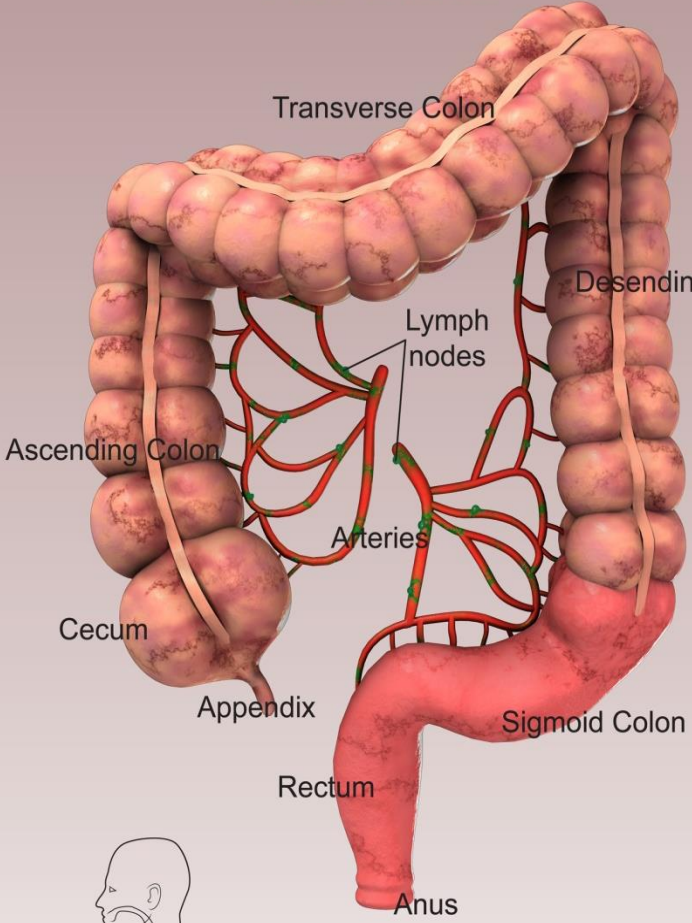


# CT colonography





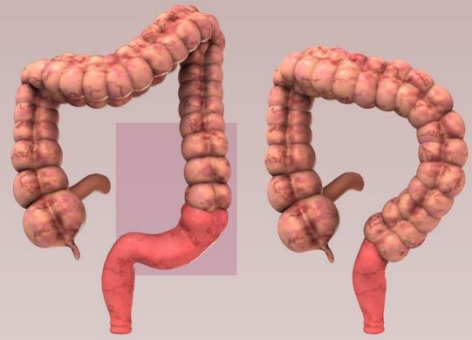
# The Colon



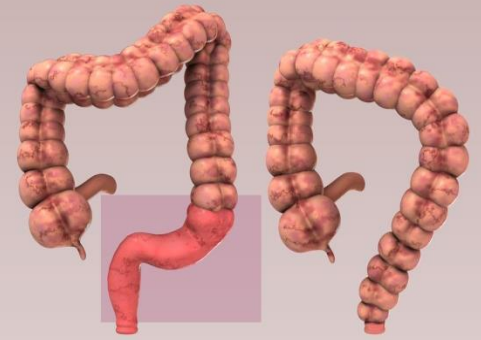
Left Colectomy



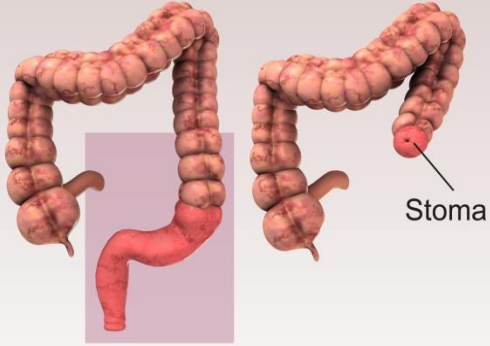
Right Colectomy



Sigmoid Colectomy



Low Anterior Resection



Abdominal Perineal Resection



# Surgery





Thank you

