Session Objectives

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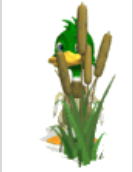
- Describe an appropriate history taking and physical exam for a patient presenting with a complaint of abdominal pain or constipation
- Correlate special abdominal examination techniques with common etiologies for abdominal pain
- Describe clinical features for common etiologies for abdominal pain or constipation
- Correlate the clinical presentation, subjective and objective findings with common etiologies for constipation
- Develop a differential diagnosis and treatment plan for a patient presenting with complaint of constipation



Abdominal Pain

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History of Present Illness

HPI – Acute Abdominal Pain

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- Onset
  - Sudden “like a light switching on” – perforated ulcer, renal stone, ruptured ectopic pregnancy, torsion of ovary or testis, ruptured aneurysms
  - Less sudden – most other causes
  - Previous episode - ulcer disease, diverticulitis, gallstone colic, Mittelschmerz
- Palliation/Provocation
  - Relieved by antiacids – peptic ulcer disease
  - Relieved by lying very still – peritonitis

Source: Bates’ Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

HPI – Acute Abdominal Pain

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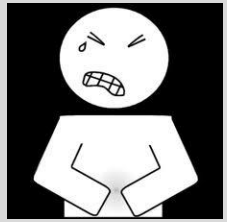
- Quality
  - Acute waves of sharp constricting pain – renal or biliary colic
  - Waves of dull pain with vomiting – intestinal obstruction
  - Colicky pain that becomes steady – appendicitis, strangulated intestinal obstruction, mesenteric ischemia
  - Sharp, constant pain, worsened by movement – peritonitis
  - Tearing pain – dissecting aneurysm
  - Dull ache – appendicitis, diverticulitis, pyelonephritis



Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

HPI – Acute Abdominal Pain

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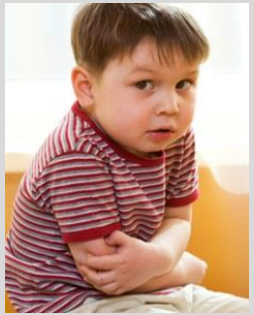
- Radiation/Region
  - Right scapula – gallbladder pain
  - Left shoulder – ruptured spleen, pancreatitis
  - Pubis or vagina – renal pain
  - Back – ruptured aortic aneurysm
- Severity
  - Severe – perforated viscus, kidney stone, peritonitis, pancreatitis
  - Pain out of proportion to physical findings – mesenteric ischemia



Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

HPI – Acute Abdominal Pain

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- Timing:
  - Gradual – Diverticulitis, cholecystitis
  - Paroxysmal – Intestinal obstruction, renal or biliary colic
  - Persistent / Stable - Pancreatitis

Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

HPI – Acute Abdominal Pain

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- Associated symptoms
  - Vomiting precedes pain and is followed by diarrhea - gastroenteritis
  - Delayed vomiting, absent bowel movement and flatus – acute intestinal obstruction; the delay increases with a lower site of obstruction
  - Severe vomiting precedes intense epigastric, left chest or shoulder pain – emetic perforation of the intra-abdominal esophagus

Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

Abdominal Exam Special Tests

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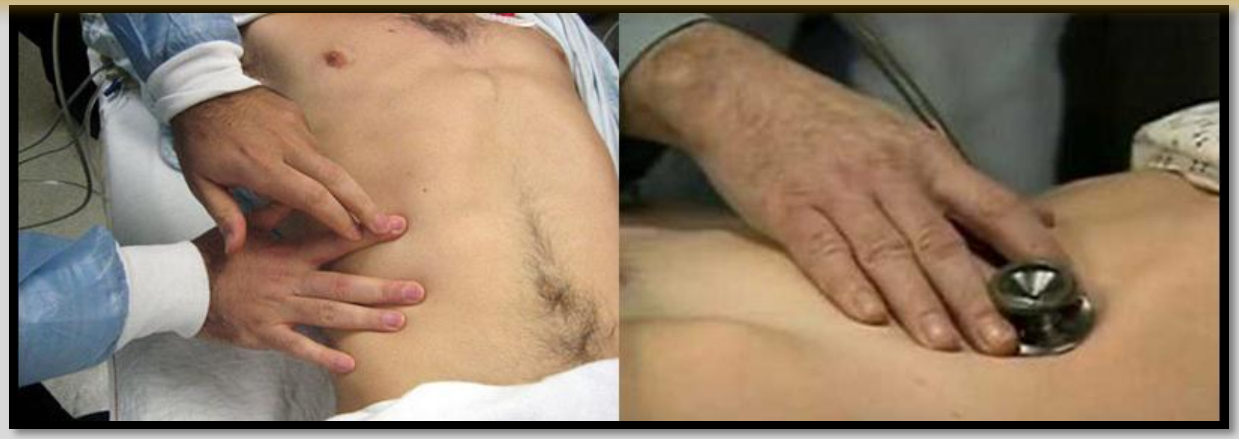
Examination Techniques



Special Examination Techniques

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- Assessment for presence of ascites
- Lloyd's Sign or Costovertebral Angle Tenderness
- Murphy's Sign
- McBurney's Point
- Rebound Tenderness
- Referred Rebound Tenderness
- Rovsing's Sign
- Obturator Sign
- Psoas Sign

Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

Lloyd's Sign or CVA Tenderness

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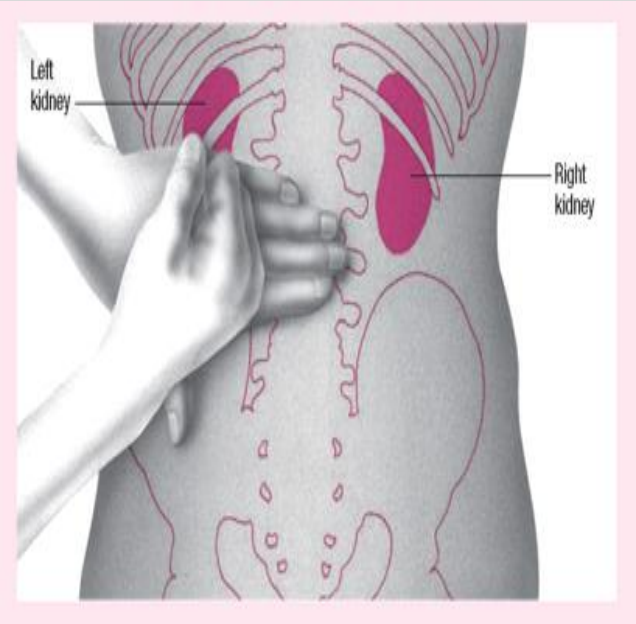
- When positive, inquire about:
  - Other signs and symptoms
  - Voiding habits
  - Additional personal or family history genitourinary or renovascular disorders



Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

Murphy's Sign

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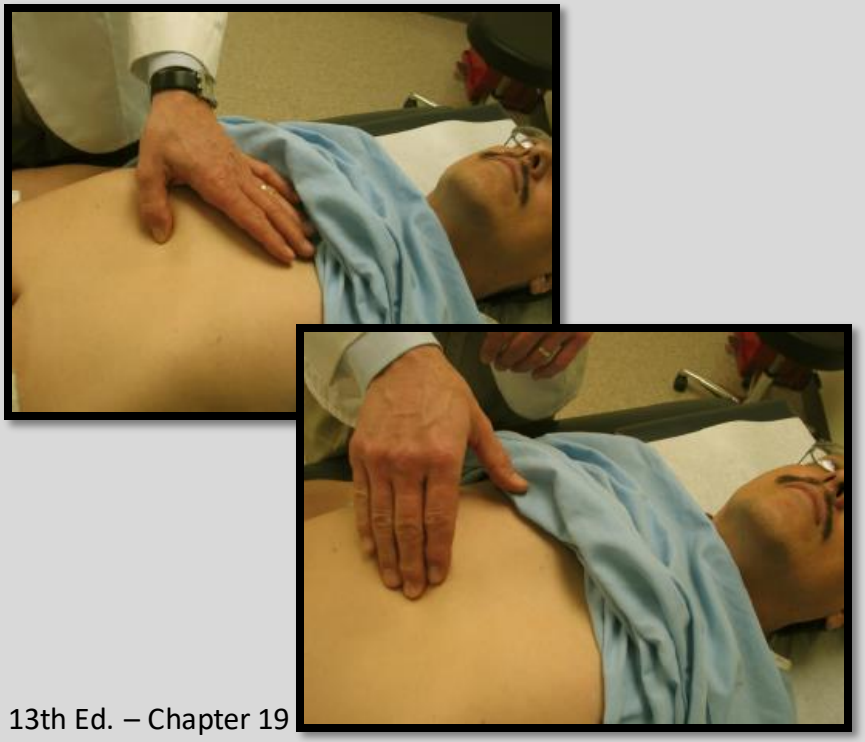
- Hook the left thumb or fingers from right hand in the right upper quadrant.
- Then ask patient to breathe deeply during palpation
- A sharp increase in tenderness with a sudden stop of inspiratory effort constitutes a positive test
- A positive finding is suggestive of acute cholecysitis



Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

Acute Cholecystitis

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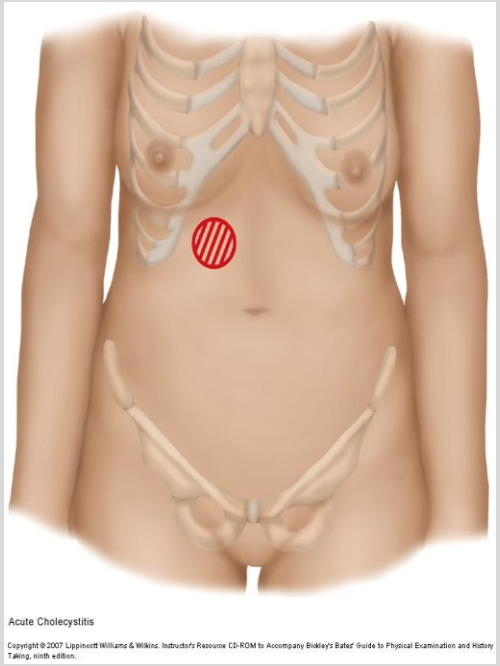
- Usually related to gallstone disease
- RUQ pain syndrome, gradual, steady
- Pain may radiate to right shoulder or back
- Fever, leukocytosis, nausea, vomiting, anorexia
- History of fatty food ingestion
- Murphy's sign positive
- Rebound may also be present due to peritoneal inflammation



Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

McBurney's Point

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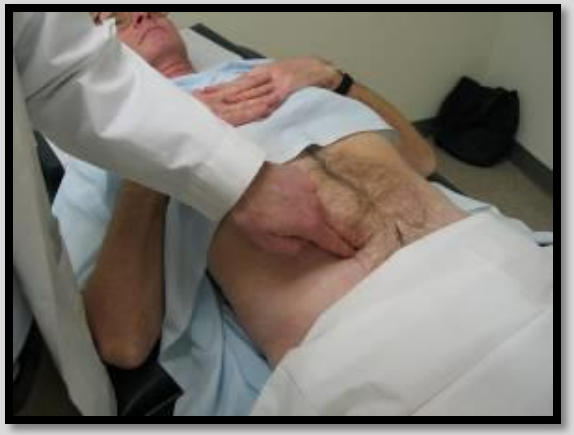
- McBurney's point is located 1/3 from the ASIS and 2/3 from the umbilicus in the right lower quadrant
- Pain at this point is suggestive of acute appendicitis



Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

Peritoneal Pain- Peritonitis

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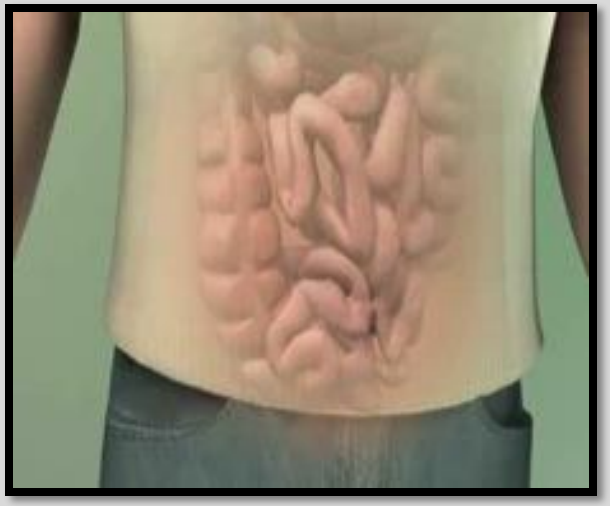
- Inflammation of peritoneal cavity
- Multiple causes
- Most serious cause is perforation on GI tract
- Causes fluid shift into peritoneal cavity
- Patient looks ill and lies still to minimize discomfort
- Death can occur within days



Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

Rebound Tenderness

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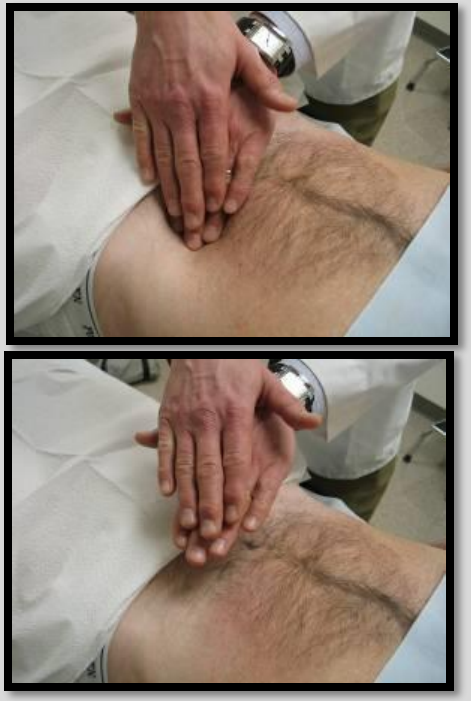
- Palpate the abdomen by pressing deeply with pads of fingertips
- After a moment, quickly release the pressure.
- Notice any signs of pain
- Test is positive if there is more pain with releasing the pressure
- Suggestive of peritonitis
- Rebound tenderness elicited in the right lower quadrant is suggestive of appendicitis



Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

Acute Pancreatitis

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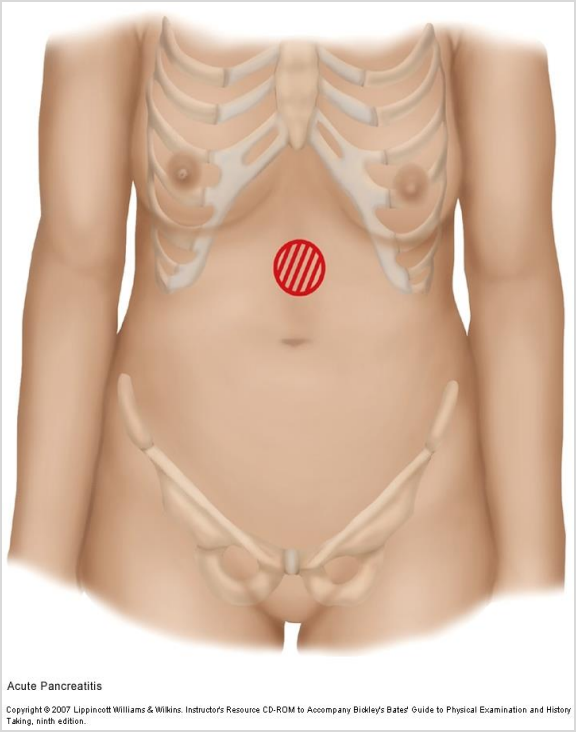

Acute Pancreatitis

- Rapid onset, severe mid epigastric or upper abdominal pain
- Commonly associated with alcoholism or gallstones
- Nausea, vomiting, fever
- Pain relieved with forward bending
- Pain may radiate around both costal margins to the back

Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

Referred Rebound Tenderness

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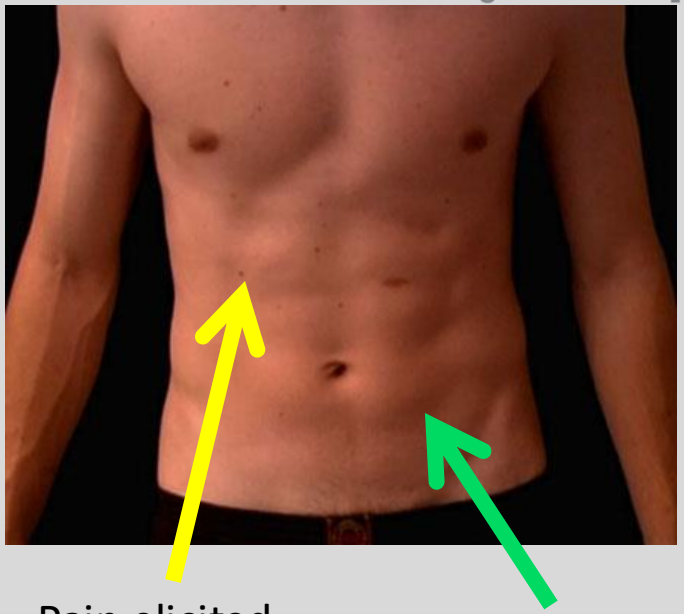
- Examiner palpates by pressing deeply any one of the quadrants and quickly releases
- Patient feels pain in another quadrant with release of pressure
- Suggestive of peritonitis



Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

Obturator Sign

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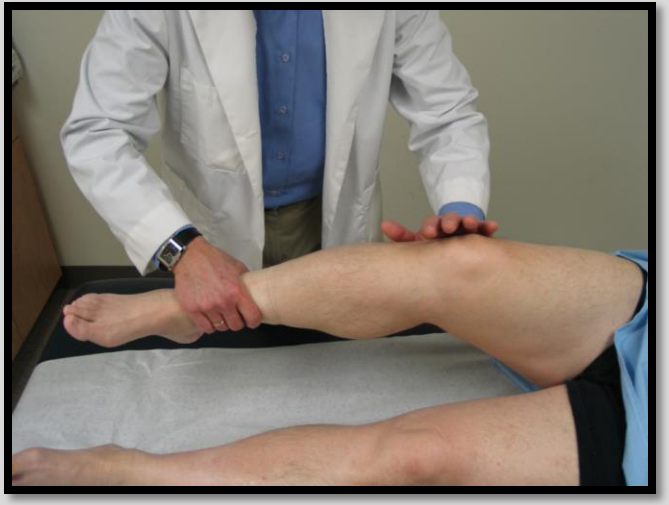
- With the patient supine, flex the patient's right thigh at the hip with the knee bent
- Internally rotate at the hip (bring ankle outward)
- Pain elicited in the right lower quadrant is suggestive of peritoneal inflammation and appendicitis



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Obturator Sign

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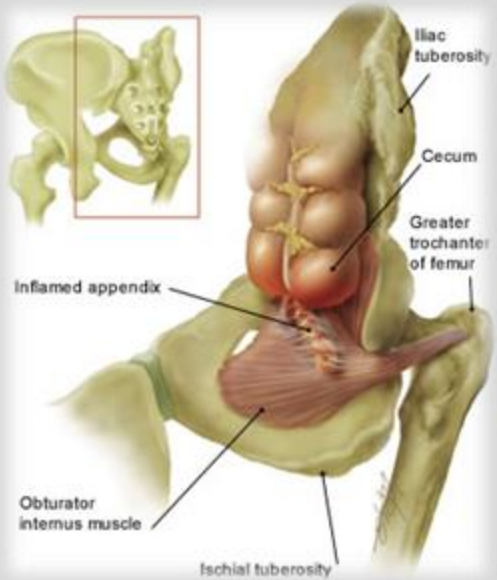

- If positive usually indicative of a pelvic appendix
- May occur with right pelvic abscesses
- Inflammed appendix in the pelvis is in contact with the obturator internus muscle

Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

Psoas Sign

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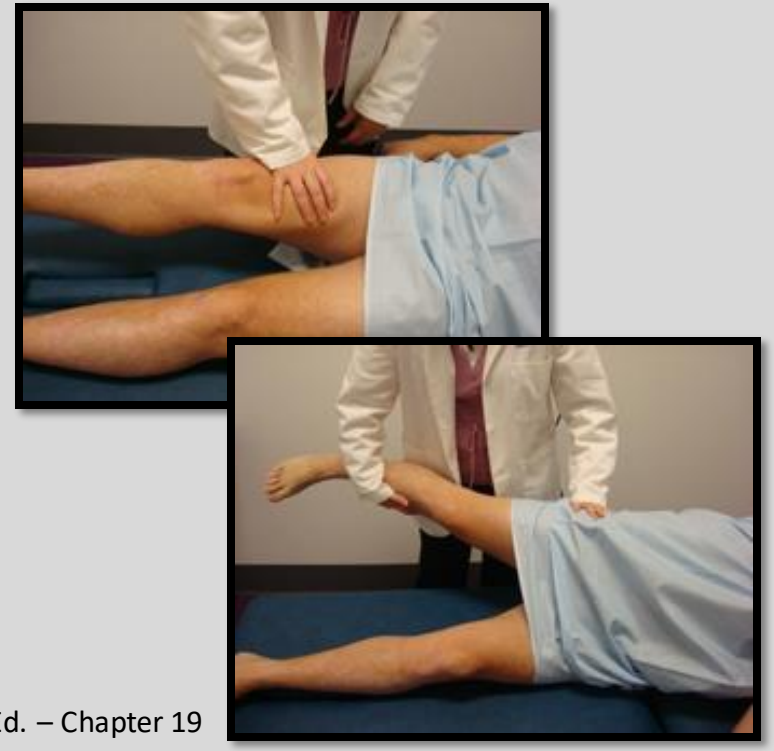
- With the patient supine, place the hand just above right knee, and ask patient to raise the thigh against your resistance

OR

- The patient can turn onto the left side and the examiner extends the patient's right leg at the hip
- An increase in abdominal pain on either maneuver is suggestive of appendicitis



Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

Psoas Sign

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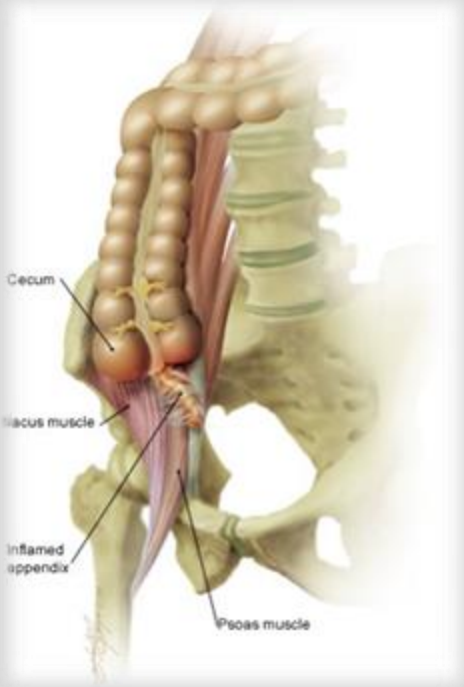

- Iliopsoas muscle is retroperitoneal
- If positive indicates appendix is retrocecal in orientation
- Appendix lies over the psoas
- Pain is elicited due to the friction of the psoas against inflammed tissues during the maneuver

Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

To Complete the Physical Exam

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- Rectal examination
  - Pain or intrarectal masses may be evaluated
  - Blood in stool
- Vaginal examination
- Testicular examination
- Evaluate for hernias

Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

Special Tests
Key points to remember…

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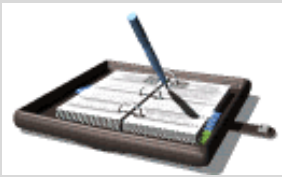
- Observe from the patient from the right side of the patient
- Explain to the patient what you are doing
- Observe the patient for signs of pain, don't rely solely on verbal cues
- Special tests are used to confirm a diagnosis you are considering from your history and abdominal exam



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Evaluation of Constipation

Approach to Patient with Constipation

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- Clear understanding of patient's complaint of constipation
  - Obtain specifics
- Determine if secondary causes are likely
- Consider metabolic and structural evaluation
- If appropriate – therapeutic trial of fiber +/- laxative or biofeedback therapy
- If inadequate response to therapeutic trial
  - Consider – Anorectal manometry, rectal balloon expulsion, defecography, barium enema or other testing

Source: American Gastroenterological Association Medical Position Statement on Constipation. Gastroenterology 2020; DOI:https://doi.org/10.1053/gast.2000.20390

History

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- Which feature is most distressing to the patient such as infrequency, straining, hard stools, unsatisfied defecation or symptoms unrelated to bowel habits or defecation (eg: bloating, pain, malaise)
- Need for perineal or vaginal pressure to allow stools to be passed or direct digital evacuation is required
  - Note: Evacuatory disorders do not respond well to laxative programs
- How often does the patient feel the need to have a bowel movement and whether he or she feels a sense of incomplete evacuation
- What laxatives are being used? How often and what dosage? Suppositories, enemas?
- How often are the bowels moved and what is the consistency of the stools?

Source: American Gastroenterological Association Medical Position Statement on Constipation. Gastroenterology 2020; DOI:https://doi.org/10.1053/gast.2000.20390

Physical

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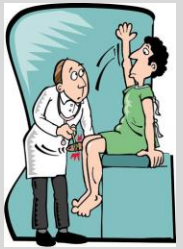
- Include abdominal and rectal examination
- Check for signs of anemia, weight loss, abdominal masses, liver enlargement or palpable colon
- Inspect perineum for hemorrhoid, skin tags, fissures, rectal prolapse or warts
- Ask patient to strain and check for leakage of stool and descent of the perineum
- Test for anal wink reflex and pelvic floor dysfunction
- Digital rectal exam – determine sphincter tone, assess rectal walls
- Evaluate for presence of rectocele



Source: American Gastroenterological Association Medical Position Statement on Constipation. Gastroenterology 2020; DOI:https://doi.org/10.1053/gast.2000.20390

Causes of New Constipation in Hospitalized Patient

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- Drugs and supplements (ie opioids, calcium channel blockers, anti-histamines, iron supplements, NSAIDs)
- Reduced physical activity
- Bedridden for length of time more than 2 weeks
- Post- surgical
- Dietary change
- Low fiber diet
- Dehydration
- Electrolyte disturbances
- Paraneoplastic syndrome
- Fecal impaction
- Intestinal obstruction
- Pseudo obstruction (Ogilvie syndrome)

Source: Lee LA, Shieh E. Constipation. Principles and Practice of Hospital Medicine, 2017 - Chapter 80

Clinical Features and Clinical Correlation

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- Colon cancer - New onset constipation in older patient, hematochezia, iron deficiency anemia, positive fecal occult test, weight loss of more than 10 pounds
- Irritable bowel syndrome – abdominal bloating and cramping
- Pelvic floor dysfunction – prolonged straining, digital evacuation, lack of pelvic lift during a digital rectal exam (DRE)
- Sacral nerve pathology – lack of anal wink
- Fecal impaction – leakage of stool on DRE
- Anal fissure – pain on DRE

- Source: K.Sadler, F. Arnold, Spencer D. Chronic Constipation in Adults. American Family Physician, 2022;106(3):299-306

Differential Diagnosis for Constipation

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- Abdominal hernias
- Psychological disorders
- Endocrine disorders
  - Neuropathy
- Infectious disease
  - Sepsis
- Neoplasm
- Neuro-degenerative disorders
- Rheumatological disorders
- Gastrointestinal disorders

- Source: K.Sadler, F. Arnold, Spencer D. Chronic Constipation in Adults. American Family Physician, 2022;106(3):299-306

Constipation – Case 3

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62-year-old female presents to your office complaining of constipation with onset about 9 months ago that has been worsening over the past 3 to 4 months. She reports has 1 to 2 bowel movements per week , strains to defecate, produces hard stools and feels she does not completely evacuate. The patient has tried increasing fiber and fluid in her diet, eats prunes, drinks prune juice, and nothing has been helpful. She states patient is unable to produce stools without using laxatives. Denies nausea, vomiting, diarrhea, hematochezia, abdominal pain, abdominal bloating, changes to the form of her stools, fever, chills, fatigue or weight changes.

Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

Constipation – Case 3

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- PMH: HTN, Hypothyroidism, Hyperlipidemia
- PSH: Appendectomy, Cholecystectomy
- Allergies: Denies
- Meds:
  - Enalapril
  - Levothyroxine
  - Atorvastatin
  - Vitamin D3
- Social Hx: Denies tobacco, alcohol or recreational drug use, 1 – 2 cups coffee/day , Married, sexually active with husband, Pediatrician, eats usually a healthy diet
- Family Hx: Father & Mother A&W, no siblings, 2 daughters A&W
- HCM: UTD

Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

Constipation – Case 3

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- Constitutional: No fever, chills, night sweats, fatigue, weight changes
- Eyes: No eye irritation or pain
- Cardio: No CP, palpitations or peripheral edema
- Resp: No SOB, cough
- GI: No N/V/D, hematochezia, melena, regurgitation
- Musc. No joint stiffness, pain or swelling
- Neuro: No tremors, paralysis
- Skin: No rash or discoloration, dryness
- Psych: No anxiety or depression

Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

Constipation – Case #3

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- VS: 110/72, HR 62, RR 14, Temp. 99.3, H 60” W 115 BMI 22.5
- Gen: Appears stated age, well groomed, NAD
- Chest: CTA B/L, no w/r/r
- Heart: S1S2, RRR, no m/r/g
- Lungs: CTA B/L, no w/r/r
- Abd:+BS hypoactive, soft, NTND, no HSM, no palpable masses, no bruits, no dilated veins, no rebound or guarding, no palpable masses
- Ext: No c/c/e, no varicosities, warm, +2 pulses x 4, joints with no synovitis, no swelling or redness
- Skin: No rash, +good turgor
- Musc: Full range of motion upper and lower extremities
- Neuro: Muscle strength 5/5 x 4, DTR’s 2/4 x 4. Gait: normal
- Rectal: No external lesions, good sphincter tone, no rectal masses, +soft stool in rectal vault
- OSE: L1FRS right
- Labs: Guaiac stool negative x 1

Source: Bates’ Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

Constipation – Case #3

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- 62 yo female
- Constipation x 9 months. Worsening over the past 3-4 months
- 1-2 BM per week. Strains to defecate hard stools. Incomplete defecation.
- Increased fiber and fluid intake not helpful
- Must use laxative to produce stools
- HTN, Hypothyroidism, Hyperlipidemia
- Appendectomy, Cholecystectomy
- PE including rectal exam: Within normal limits, except for L1FRS right
- Lab: Guaiac stool negative x 1

Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

Which of the following if the most likely cause of this patient's symptoms?

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1. Chagas disease
2. Hypothyroidism
3. Functional defecation disorder
4. Irritable bowel syndrome
5. Colon cancer

Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19

Irritable Bowel Syndrome – Rome IV Criteria

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- Recurrent abdominal pain, on average, at least one day per week in the last 3 months, associated with 2 or more of the following:
  - Related to defecation
  - Onset associated with a change in frequency of stool
  - Onset associated with a change in form (appearance of stool)
- Criteria fulfilled for a least 3 months with symptom onset at least 6 months prior to diagnosis
- If constipation type:
  - Patient reports that abnormal bowel movements are usually constipation (Type 1 and 2 in the Bristol stool form scale (BHFS).
  - Patients have a hard time passing stools
  - Often need to strain
  - Feel cramps with bowel movements
  - Often do not release any stools or only a small amount
- Intensity of symptoms vary on and off

Source: Wald A. Clinical manifestations and diagnosis of irritable bowel syndrome in adults. UpToDate, Jan. 2025

Case 3 – The SO → AP

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- Differential diagnosis/ Assessment
  - Functional defecation disorder
  - Irritable bowel syndrome
  - Colon cancer
  - Hypothyroidism
  - HTN
  - Hyperlipidemia
  - Somatic dysfunction of the lumbar spine
- Plan
  - Lab: TSH, FT4, CBC, CMP
  - Increase fluid and fiber intake
  - Guaiac stools x 3
  - GI consult
  - Cont. current medications
  - Behavioral psychologist consult
  - Biofeedback therapy – pelvic floor retraining
  - Education on diet (low salt, low lipids)
  - OMT
  - Follow-up after visit to GI

Source: Bates' Guide to the Physical Examination and History Taking; 13th Ed. – Chapter 19