



16

Abdomen

LEARNING OBJECTIVES

After studying Chapter 16 in the textbook and completing this section of the workbook, students should be able to:

1. Conduct a history related to the abdomen.
2. Discuss examination techniques for the abdomen.
3. Identify normal age and condition variations of the abdomen.
4. Recognize findings that deviate from expected findings.
5. Relate symptoms or clinical findings to common pathologic conditions.

TEXTBOOK REVIEW

Chapter 16 Abdomen (pages 525–583)

CONTENT REVIEW QUESTIONS

Multiple Choice

Circle the correct answer for each of the following questions.

1. Which statement made by a patient suggests that the patient has a risk for viral hepatitis A? “I:
 - a. am a health care worker.”
 - b. had a blood transfusion recently.”
 - c. have renal failure and have hemodialysis three times a week.”
 - d. have recently been overseas.”
2. The examiner observes venous return on the abdomen of the patient that moves upward from the pubis to the chest. This finding should make the examiner consider:
 - a. portal hypertension.
 - b. renal artery stenosis.
 - c. inferior vena cava obstruction.
 - d. mesentery artery hypertension.

3. Which of the following questions would help an examiner determine whether a patient has an intra-abdominal infection?
 - a. "Where is the pain?"
 - b. "Would you like something to eat?"
 - c. "What does your urine look like?"
 - d. "Is there a history of this problem in your family?"
4. Mrs. Cody is 36 weeks pregnant. She tells the examiner she feels like her stomach muscle is splitting. A light protrusion of the abdomen midline is observed. This is recognized as:
 - a. abdominal dehiscence.
 - b. swelling of the abdominal aorta.
 - c. diastasis recti.
 - d. umbilical herniation.
5. In which of the following patients would a slight pulsation in the epigastric area be considered a normal inspection finding?
 - a. a very thin patient
 - b. an obese patient
 - c. a patient with ascites
 - d. an elderly patient
6. The examiner palpates an organ in the left costal margin. Which technique should the examiner use to differentiate between an enlarged left kidney and an enlarged spleen?
 - a. auscultation, listening for renal bruit
 - b. auscultation, listening for abdominal friction rub
 - c. palpation, using indirect fist palpation to assess for tenderness
 - d. percussion, listening for dullness
7. A hiatal hernia is best described as:
 - a. a protrusion of abdominal contents through a weakening in the abdominal wall.
 - b. a protrusion of the stomach through the esophageal hiatus of the diaphragm.
 - c. an ulcer in the mucosa of the stomach that herniates into the peritoneal cavity.
 - d. a herniation of the gallbladder into the cystic duct.
8. An examiner may wish to use a bimanual technique for abdominal palpation when:
 - a. palpating superficial organs.
 - b. validating abdominal tenderness in the infant.
 - c. meeting muscle resistance while performing deep palpation.
 - d. determining the presence of excessive peritoneal fluid.
9. Fetal well-being can be assessed by fetal heart rate and:
 - a. adequate maternal weight gain.
 - b. fetal position.
 - c. measurement of abdominal girth.
 - d. kick count.
10. A history of chest pain is collected as part of an abdominal history because it may be:
 - a. associated with ulcers.
 - b. caused by esophageal herniation and edema.
 - c. perceived as esophagus and stomach pain.
 - d. related to congenital abdominal defects.

11. The examiner lightly strokes each quadrant of the abdomen with the end of a reflex hammer by stroking outwards from the navel. Which of the following describes the expected finding?
 - a. contraction of the abdominal muscle, pulling of the umbilicus toward the stroked side
 - b. contraction of the abdominal muscle, pulling of the umbilicus away from the stroked side
 - c. rippling motion of the abdomen associated with peristaltic activity
 - d. absence of abdominal movement

12. How is fundal height measured? Measure from the:
 - a. umbilicus to the top of the fundus.
 - b. perineum to the top of the fundus.
 - c. symphysis pubis to the top of the fundus.
 - d. xyphoid process to the top of the fundus.

13. You note that the midclavicular liver span of an adult male patient is 18 cm. With palpation you note that the liver is enlarged, hard, and nontender. What do these findings suggest?
 - a. diverticulitis
 - b. ulcerative colitis
 - c. hepatitis
 - d. cirrhosis

14. The examiner is unable to palpate the liver or kidney on the patient. Which of the following techniques will help assess tenderness to these organs?
 - a. direct, continuous, firm pressure over the organ for several minutes
 - b. percussion for tympany
 - c. percussion for size
 - d. indirect fist percussion

15. In which age group does abdominal palpation become easier and more accurate?
 - a. young children
 - b. adolescents
 - c. young adults
 - d. older adults

16. Which of the following techniques is used to confirm the presence of abdominal ascites?
 - a. auscultation of fluid movement within the abdominal cavity
 - b. palpation of rebound tenderness
 - c. palpation of pitting edema on the abdomen
 - d. percussion of dullness over dependent areas of the abdomen

17. A 5-week-old male infant is brought to the clinic with a 2-day history of projectile vomiting. What specific finding should the examiner assess for?
 - a. abdominal pain with palpation
 - b. palpation of small, round mass
 - c. auscultation of tinkering bowel sounds
 - d. auscultation of bruit over renal artery

18. Which of the following examination findings is indicative of peritoneal irritation or appendicitis?
 - a. palpation of rebound tenderness
 - b. percussion of shifting dullness over the abdomen
 - c. auscultation of a bruit over the abdominal aorta
 - d. percussion of dullness over the suprapubic area

19. Fetal movement (quickening) is determined through which examination technique?
 - a. auscultation—hearing the fetal movement within uterus
 - b. palpation—by placing a hand over the abdomen
 - c. deep palpation—feeling fetal movement as you push your hand against abdomen
 - d. percussion—noting changes in tone as the fetus moves in the uterus

20. Which finding on a newborn infant suggests a congenital anomaly?
 - a. The umbilical cord has one artery and one vein.
 - b. The umbilical cord is thick.
 - c. The umbilical cord is thin.
 - d. There is a small mass around the umbilicus.

21. A 32-year-old female patient tells the examiner that when she goes running, she dribbles urine. Which type of problem should the examiner consider?
 - a. hydronephrosis
 - b. renal abscess
 - c. stress incontinence
 - d. overflow incontinence

22. A 61-year-old man has a presenting complaint of frequent constipation. He tells the examiner that there has been a change in his bowel movement habits—he gets constipated easily, the stool is very “skinny-looking,” and it is a different color than usual. He denies pain. What do these symptoms suggest?
 - a. diverticulitis
 - b. hepatitis B
 - c. colon or rectal cancer
 - d. pancreatitis

23. The functional ability of the GI tract most severely affected by aging is:
 - a. motility.
 - b. metabolism.
 - c. digestion.
 - d. catabolism.

24. What is the correct name of the rule that states that the farther away from the navel abdominal pain occurs, the more likely it is to be of physical importance?
 - a. Reglan rule
 - b. Appley rule
 - c. Applegate rule
 - d. Romberg rule

25. Which of the following signs is an absence of bowel sounds in the right lower quadrant which indicates the possibility of intussusception?
 - a. Grey Turner
 - b. Aaron
 - c. Dance
 - d. Markle

Terminology Review

Matching

Match each clinical finding to its corresponding abdominal condition.

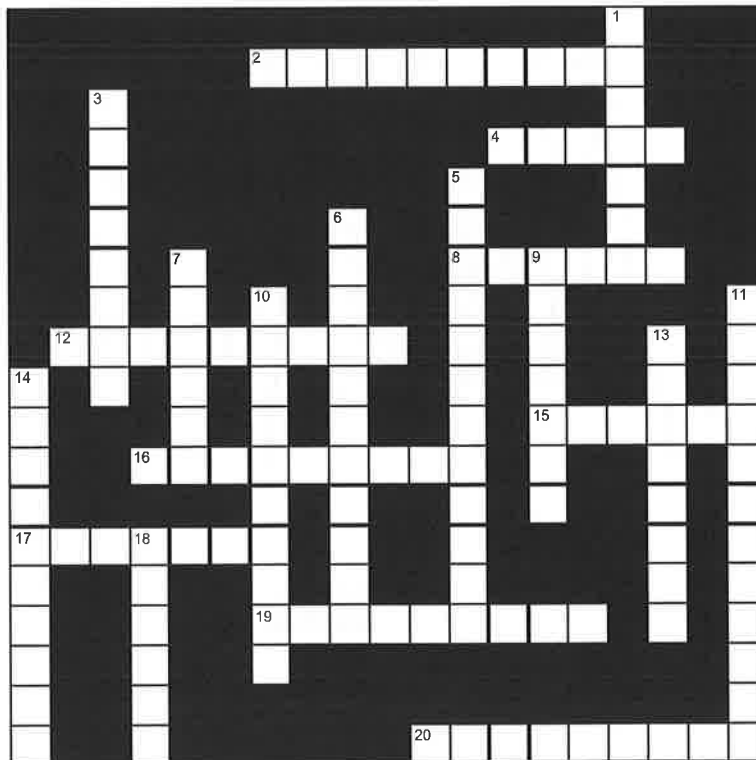
Clinical Finding

- 26. _____ Knifelike pain
- 27. _____ Dark yellow urine
- 28. _____ Pain with gradual onset
- 29. _____ Colic pain
- 30. _____ Bruit
- 31. _____ Burning pain

Abdominal Condition

- a. Intra-abdominal infectious process
- b. Ulcer
- c. Liver/biliary disease
- d. Pancreatitis
- e. Renal stone
- f. Aortic aneurysm

Crossword Puzzle



Across

- 2. Excessive quantity of amniotic fluid
- 4. Spasmodic pains in the abdomen
- 8. Enzyme that acts on emulsified fats
- 12. Destruction of liver parenchyma
- 15. Backflow caused by relaxation or incompetence of lower esophagus
- 16. Sound obtained on percussing a part that can vibrate freely
- 17. Low-pitched, resonant, drumlike note obtained by percussing the surface of a large, air-containing space
- 19. Fan-shaped fold of peritoneum that anchors small intestine to abdominal wall
- 20. Inflammatory process of liver, usually caused by viral infection

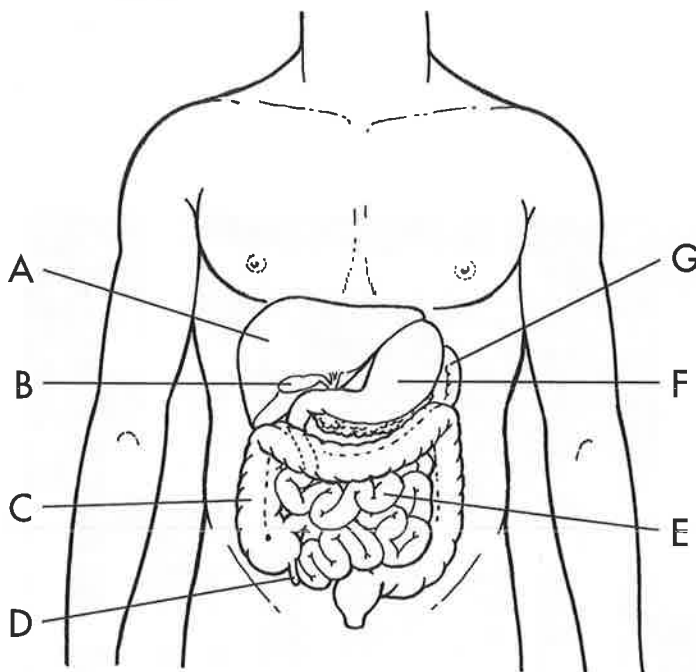
Down

- 1. Accumulation of serous fluid in the peritoneal cavity
- 3. Abdomen that suggests diaphragmatic hernia in the newborn
- 5. Palpation technique used to assess a floating mass
- 6. Muscular contractions that move products of digestion through the alimentary canal
- 7. Commonly known as “stretch marks”
- 9. Distal section of the stomach
- 10. Rumbling or gurgling noises produced by movement of gas in the alimentary canal
- 11. Uterine contractions that may begin in the first trimester
- 13. Twisting of the intestine resulting in an obstruction
- 14. Serous membrane lining the abdominal cavity
- 18. Enzyme that acts to digest proteins

Anatomy Review

Activity 1

On the illustration below, identify the structures of the abdomen by writing the correct term in the corresponding lettered answer space. Use each term once.



appendix
colon
gallbladder
liver

pancreas
small intestine
spleen
stomach

- a. _____
- b. _____
- c. _____
- d. _____

- e. _____
- f. _____
- g. _____
- h. _____

Activity 2

Consider the two recognized divisions of the abdomen: four quadrants of the abdomen and nine regions of the abdomen, found on page XXX of the textbook. Referring to the illustration in Activity 1, identify on the chart below the quadrant and the region where each of the listed abdominal structures are located. (Some structures are found in more than one quadrant or region.) The first one has been done for you.

<i>Structure</i>	<i>Quadrant</i>	<i>Region</i>
Appendix	right lower quadrant	right inguinal
Colon		
Gallbladder		
Liver		
Pancreas		
Small intestine		
Spleen		
Stomach		

CONCEPTS APPLICATION

Complete the table below to compare and contrast types of pain, abdominal signs, and associated symptoms or findings of the various conditions.

<i>Condition</i>	<i>Type of Pain</i>	<i>Abdominal Signs or Findings</i>	<i>Associated Symptoms</i>
Peritonitis	Sudden or gradual onset of generalized or localized pain described as dull or severe; increased pain with deep inspiration		
		+ Murphy sign	
Ectopic pregnancy			Tender cervix, discharge, dyspareunia
	Sudden and dramatic LUQ, umbilical, or epigastric pain that may be referred to L shoulder		Fever, epigastric tenderness, vomiting
		+ Kehr sign	Fever, hematuria

CASE STUDY

Katie is an 18-year-old female complaining of abdominal pain. Listed below are data collected by the examiner during an interview and examination.

Interview Data

Katie tells the examiner the pain started yesterday evening and has gotten progressively worse. She describes the pain as “really bad.” The pain is constant and located in her right lower abdomen, toward her umbilicus. She says that her pain feels a little better if she stays curled up and does not move. She tells the examiner that she is in good health and that she has never had a problem with her stomach. Katie indicates that normally she has a good appetite and can eat anything . . . except for now. She says she ate breakfast and lunch yesterday, but by dinnertime she was nauseated and had no appetite. She has not eaten anything since. She has had no recent weight changes, but she would like to weigh about 5 pounds less than she currently does. Katie does not smoke or drink alcoholic beverages, and she takes no medication. She denies discomfort or problems with urination, describing her urine as “usual-looking.”

Examination Data

General survey: Alert and anxious female in moderate distress lying in a fetal position on the examination table, with her eyes closed. Appears well-nourished but not obese. Her skin is hot.

Abdominal inspection: Abdomen is flat and symmetric. No lesions or scars noted. No surface movements are seen except for breathing.

Abdominal auscultation: Bowel sounds absent.

Abdominal percussion: Tympany noted over most of abdominal surface; dullness over liver. Midclavicular liver span is 4 inches.

Light abdominal palpation: Demonstrates pain and guarding in right lower quadrant. Unable to palpate deep structures because of excessive abdominal discomfort. Demonstrates positive rebound tenderness in right lower quadrant.

1. What data deviate from normal findings, suggesting a need for further investigation?

2. What additional questions could the examiner ask to clarify symptoms?

3. What additional physical examination, if any, should the examiner complete?
4. What primary problems does the patient have?

CRITICAL THINKING

1. As you auscultate the abdomen, you should listen not only for bowel sounds, but vascular sounds and a friction rub as well. List specifically what you are listening to and what abnormal findings may indicate.
2. Mr. Cane is a 46-year-old male with liver cirrhosis. You are preparing to check for ascites using a fluid wave technique. How is this particular procedure done, and what is a positive finding?
3. Cindy is a 24-year-old female who is 7 months pregnant. Describe expected findings during an abdominal examination that are unique to pregnancy.