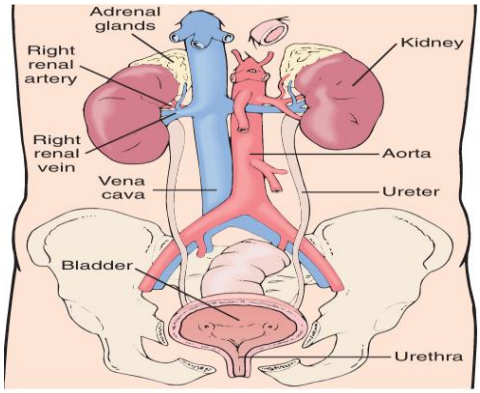
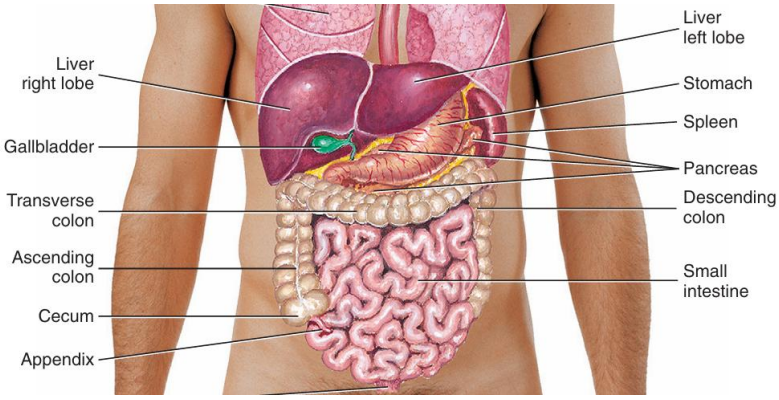
University of A-Ameed
College of Nursing
Adult branch
2025-2026

Abdominal assessment

The abdominal cavity, the largest cavity in the human body, contains the stomach, small and large intestines, liver, gall bladder, pancreas, spleen, kidneys, ureters, bladder, adrenal glands, and major vessels. In women the uterus, fallopian tubes, and ovaries are located within the abdominal cavity.



Anatomy of the urinary system and major vessels



Anatomy of the gastrointestinal system.

Health History

Nurses interview patients to collect subjective data about their present health and any past medical experiences. They ask questions about the patient's present health status, past health history, family history, and personal and psychosocial history that may affect the functions of the abdomen and GI system.

GENERAL HEALTH HISTORY:

Present Health Status:

1. **Do you have any chronic diseases that affect your GI or urinary systems? If yes, describe:**

Some chronic diseases such as diabetes mellitus may affect the GI or urinary systems.

2. **Do you take any medications? If yes, what do you take and how often? Are you taking the medications as they were prescribed?**
   Both prescription and over-the-counter medications should be documented. Medications may cause adverse GI effects.
3. **How often do you have a bowel movement? When was your last bowel movement? Describe the color and consistency of the stool**:
   Frequency of bowel movements is individual for each person. The frequency, color, and consistency of stool are documented as baseline data.

- **Past Health History:**

1. **Have you had problems with your abdomen or digestive system in the past? If yes, describe:**
   History of GI disorders may provide insight into findings to anticipate at this visit. These data give clues to patient's education needs about reducing risk for other diseases.
2. **Have you had surgery of your abdomen or urinary tract? If yes, describe.**
   Patients who have had gastrectomy's may have changed the foods they eat and the amount and frequency of meals. Patients may have a colostomy or an ileostomy after surgery for such disorders as colon cancer or ulcerative colitis.
3. **Have you had problems with your urinary tract in the past? If yes, describe:**
   History of urinary disorders may provide insight into findings to anticipate at this visit. These data also give clues to patient's education needs about reducing risk for other diseases
4. **Do you ever experience the leaking of urine? When does this occur?**
   Many patients do not report incontinence unless asked about it, often because of embarrassment.

- **Family History**

1. **In your family is there a history of diseases of the GI system such as gastroesophageal reflux disease (GERD)? Peptic ulcer disease? Stomach cancer? Colon cancer?**

Family history may be used to determine patients' risk factors for GI disorders.

Problem-based history

Specific areas of assessment of the abdomen and GI system include:

1. abdominal pain
2. nausea and vomiting
3. indigestion
4. abdominal distention
5. change in bowel habits
6. jaundice
7. problems with urination.

As with symptoms in all areas of health assessment, a symptom analysis is completed using the mnemonic COLDSPA, which includes the Onset, Location, Duration, Characteristics, Aggravating factors, Related symptoms, Treatment, and Severity

Physical Assessment:

1. **Inspection:** The patient should appear relaxed, sitting or lying quietly with slow, even respirations.
   - Skin inspection: Direct a light source at a right angle to the patient's long axis. Skin color may be paler than other parts of the skin because of lack of exposure.
   - Surface characteristics: the surface should be smooth. Silver-white striae; scars; and a very faint, fine vascular network may be present. The umbilicus should be centrally located.
   - venous patterns: The pattern of veins of the abdomen is usually barely visible.
   - Contour: The abdomen may be sunken, distended or it may protrude slightly, especially in overweight and obese patients. Evaluate symmetry by viewing the abdomen from two additional angles. The contour of the abdomen should remain smooth and symmetric.

When abdominal distention is noted, place a measuring tape around the abdomen at the level of the superior iliac crests to measure the **abdominal girth.**

- surface movements: Inspect the surface for movements. Peristalsis is usually not visible, but an upper midline pulsation may be visible in thin individuals. The abdomen should move smoothly and evenly with respirations. Generally, females exhibit thoracic movements during inhalation, whereas males exhibit abdominal movements.

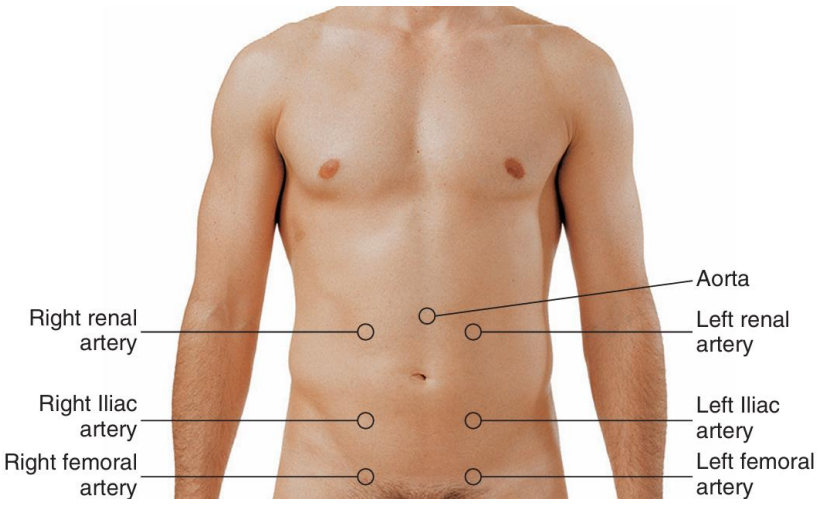
2. Auscultation:

A. **Auscultate the abdomen for bowel sounds:** Auscultate before palpating and percussing the abdomen so the presence or absence of bowel sounds or pain is not altered. A quiet environment may be necessary.

The procedure: Use the diaphragm of the stethoscope and press lightly. Listen in a systematic progression, such as from right upper quadrant (RUQ) to left upper quadrant (LUQ) to left lower quadrant (LLQ) and finally to right lower quadrant (RLQ).

The findings: Bowel sounds should be noted every 5 to 15 seconds. The duration of a single bowel sound may range from 1 second to several seconds. The sounds are high pitched gurgles or clicks, although this varies greatly.

B. Auscultate the abdomen for arterial and venous vascular sounds.
The procedure: Listen with the bell of the stethoscope. Listen over aorta and renal, iliac, and femoral arteries for bruits. They make "swishing" sounds, occur during systole, and are continuous, regardless of the patient's position (Fig. 13-6). Also listen with the bell over the epigastric region and around the umbilicus for a venous hum (i.e., a soft, low-pitched, and continuous sound).



Abnormal finding in the auscultation:

1. Absence of bowel sound after listening for several minutes in each quadrant.
2. Increased peristalsis is associated with diarrhea, laxative use, and gastroenteritis.
3. A bruit indicates a turbulent blood flow caused by narrowing of a blood vessel. Bruits over the aorta suggest an aneurysm.
4. Venous hums are rare and are associated with portal hypertension and cirrhosis.

3. Palpation

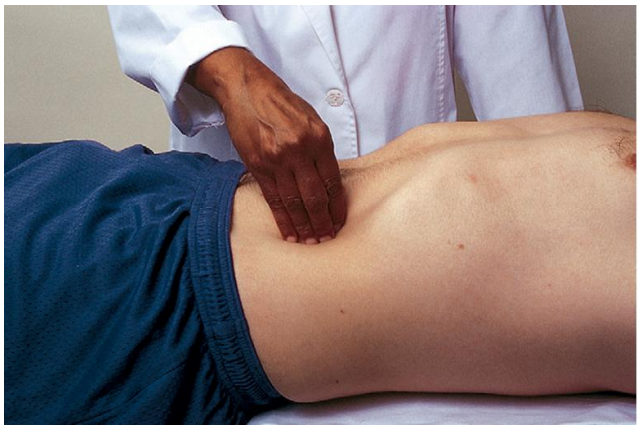
a. Palpate the abdomen lightly for tenderness and muscle tone.

The procedure: Before palpation some nurses ask patients to bend their knees to relax the abdominal muscles. Palpate all quadrants of the abdomen. Use the pads of the fingertips to depress the abdomen 1 to 2 cm. When the patient has reported abdominal pain, palpate over the area of pain last.

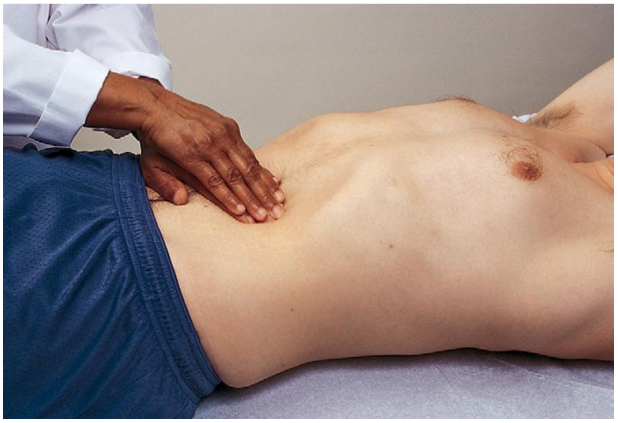
Findings: No tenderness should be present, and the abdominal muscles should be relaxed, although anxious patients may have some muscle resistance on palpation.

b. Palpate the abdomen deeply for tenderness, masses, and aortic pulsation.

The procedure: Palpate all quadrants. Use either the distal flat portions of the finger pads and press gradually and deeply 4 to 6 cm into the palpation area, or use a bimanual technique with the lower hand resting lightly on the surface and the upper hand exerting pressure for deep palpation



Deep palpation of the abdomen



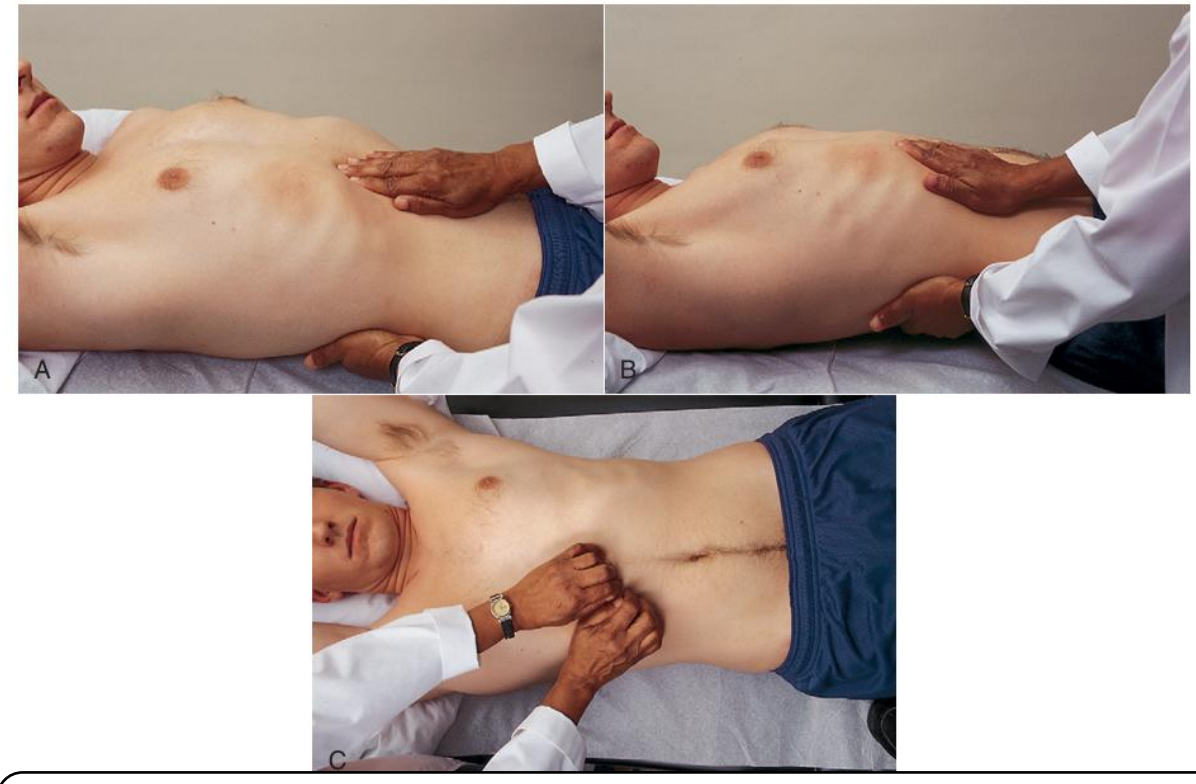
Deep bimanual palpation

The findings: No tenderness or masses are expected during deep palpation. The aorta is often palpable at the epigastrium and above and slightly to the left of the umbilicus

c. **PALPATE the liver for lower border and tenderness:** Palpate the liver when you suspect an enlarged liver.

Procedure: Two techniques may be used to palpate the liver.

1) Begin by placing the left hand under the eleventh and twelfth ribs to lift the liver closer to the abdominal wall. Place your right hand parallel to the right costal margin and press down and under the costal margin Ask the patient to take some deep breaths. The border and contour of the liver often are not palpable. The liver may "bump" against the right fingers during inspiration, especially in thin patients.
2) Another technique is called the hooking technique. Stand on the patient's right side facing the feet. Place your hands side by side at the right costal margin and curve your fingers to "hook" them under the costal margin



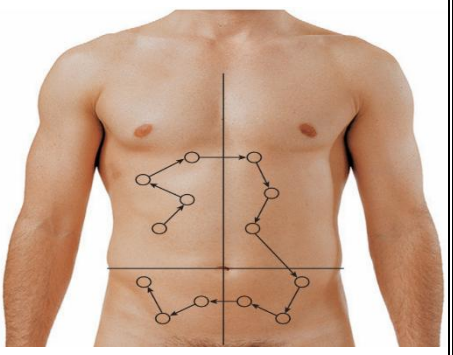
Methods of palpating the liver. **A**, Fingers are extended, with tips on right midclavicular line below the level of liver tenderness and pointing toward the head. **B**, Fingers parallel to the costal margin. **C,** Fingers hooked over the costal margin.

Findings: Ask the patient to take a deep breath, and you may feel the liver "bump" against your fingers during inspiration. The border of the liver should feel smooth. No tenderness should be present.

4. **Percussion**

A. **PERCUSS the abdomen for tones**: Percuss the abdomen when you suspect distention, fluid, or solid masses.

Procedure: for the procedures for percussion. Percuss all quadrants for tones, using indirect percussion to assess density of abdominal contents. Percuss in each quadrant for tympany and dullness.



Systematic Route for Abdominal

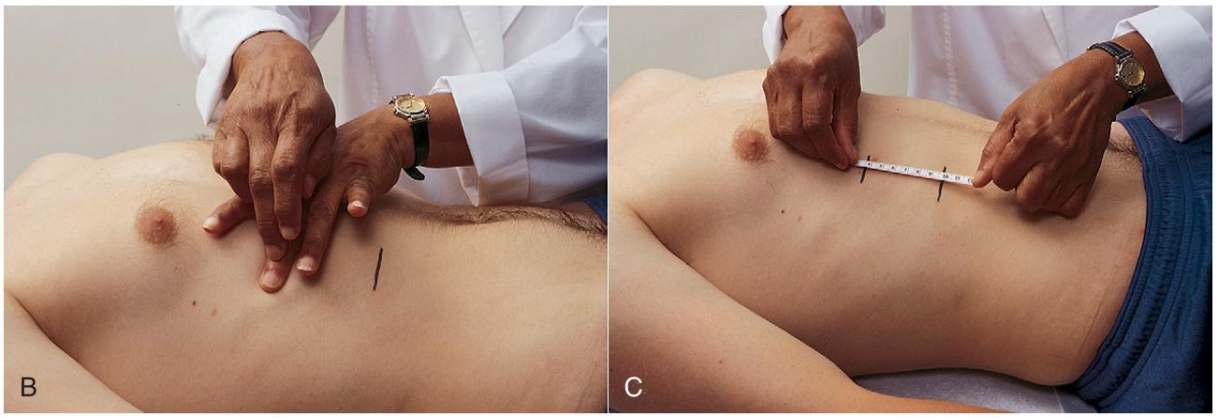
Findings: Tympany is the most common percussion tone heard and is caused by the presence of gas. The suprapubic area may be dull when the urinary bladder is distended

Abnormal finding: Note any marked dullness in a localized area that may indicate distention, fluid, or an abdominal mass.

B. PERCUSS the liver to determine span and descent:

Procedure:

1. Beginning below the level of the umbilicus at the right midclavicular line, percuss upward until the tone changes from a tympany to a dull percussion tone, indicating the liver border. Mark the border with a pen. The lower border is usually at the costal margin or slightly below it.
2. Beginning over the lung in the right midclavicular line, percuss the intercostal spaces downward until the tone changes from resonant to dull, indicating the upper liver border. Mark the location with a pen. The upper border usually begins in the fifth to seventh intercostal space
3. Measure the span between the two lines using a ruler or tape measure to estimate the midclavicular liver span.



B, Percussion method of estimating size of liver in the midclavicular line. **C,** Distance between the two marks measured in estimating the liver span in midclavicular line

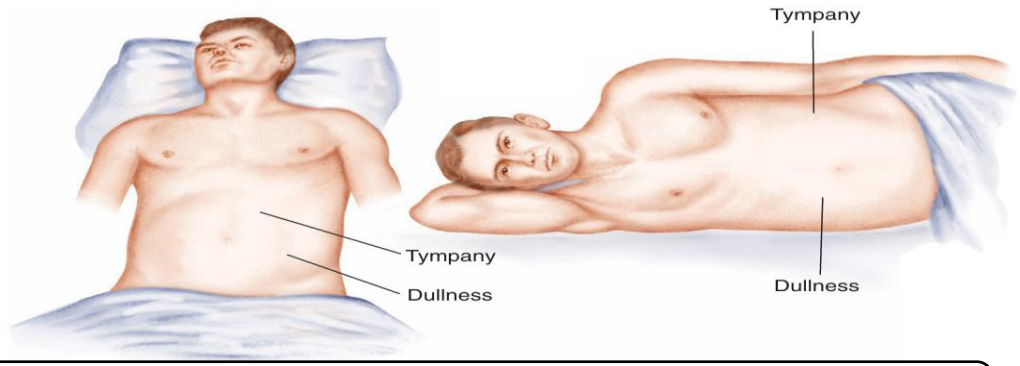
Findings: The midclavicular liver span is expected to be 6 to 12 cm. Liver span correlates with body size and gender; large people and men tend to have larger spans.

C. ASSESS the abdomen for fluid: If fluid is suspected within the abdomen, perform the following tests:

1. Shifting Dullness:

Procedure:

Ask the patient to lie supine so any fluid pools in the lateral (flank) area. Percuss the abdomen. Draw lines on the abdomen to indicate the midline tympany (the expected tone) in contrast to lateral dullness (tone created by fluid). Then have the patient turn to the right side and repeat percussion. Listen for the tympanic tone to shift to the upper (left) side and the area of dullness rises toward the midline. Finally have the patient turn to the left lateral position and percuss. Listen as the dullness rises toward the midline.



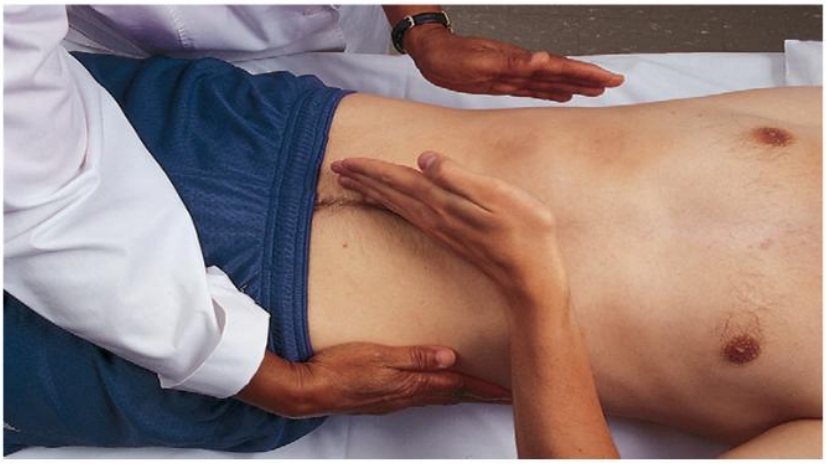
Testing for shifting dullness. Dullness shifts to the dependent side

Findings: Normally tympany is heard throughout the abdomen, except over the bladder when it is distended.

2. **Fluid Wave**

   Procedure: The patient lies supine. You need the hand of another nurse or the patient to be placed sideways in the middle of the patient's abdomen to stop the transmission of a tap across the skin (Place your hands on either side of the abdomen. Use your fingertips to sharply strike one side of the abdomen. Feel for the fluid wave with the other hand on the opposite side of the abdomen.

Findings: The expected finding is no fluid wave.



Testing for fluid wave.