

Biomedical Terminology

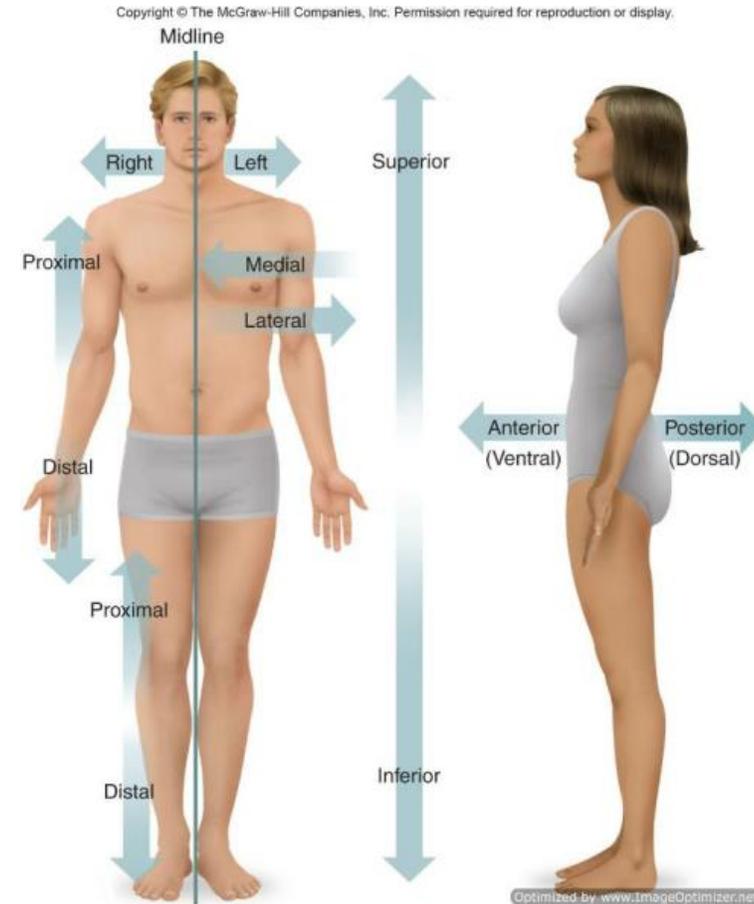
Directional Terms, Anatomical Planes, Regions, and
Quadrants

Anatomic Position and Directional Combining Forms

- All directional terminology is based on anatomic position
 - A reference position - standing with arms to the side and palms facing forward and feet placed side by side
 - *Note: -ior, al – pertaining to, -ad - toward*
- Combining Forms of Directional Terms
 - Anter/o – front
 - Caud/o – tail (downward)
 - Cephal/o- head (upward)
 - Dist/o – away (from the point of attachment of a body part)
- Combining Forms of Directional Terms (*cont.*)
 - Dors/o – back
 - Infer/o – below
 - Later/o – side
 - Medi/o – middle
 - Poster/o – back, behind
 - Proxim/o – near (the point of attachment of a body part)
 - Super/o – above
 - Ventr/o – belly (front)

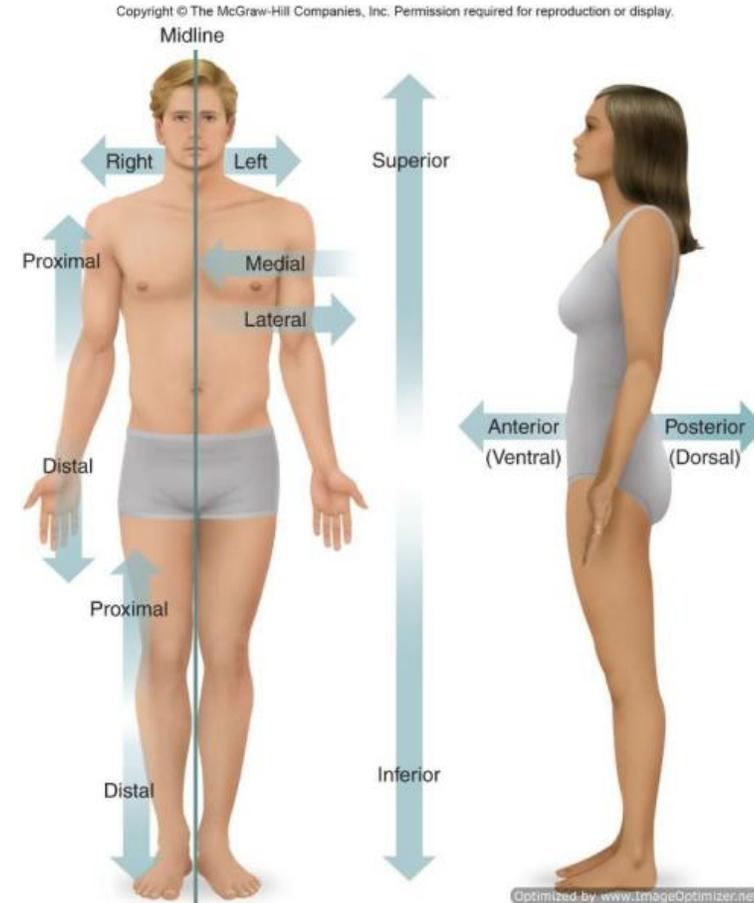
Directional Terms

- Anterior (ant)
 - Pertaining to the front
- Posterior
 - Pertaining to the back
- Ventral
 - Pertaining to the belly (front)
- Dorsal
 - Pertaining to the back
- *Note: dorsal and ventral are often used when discussing structures*
- Anterio-posterior (AP)
 - Pertaining to the front and to the back
- Postero-anterior (PA)
 - Pertaining to the back and the front



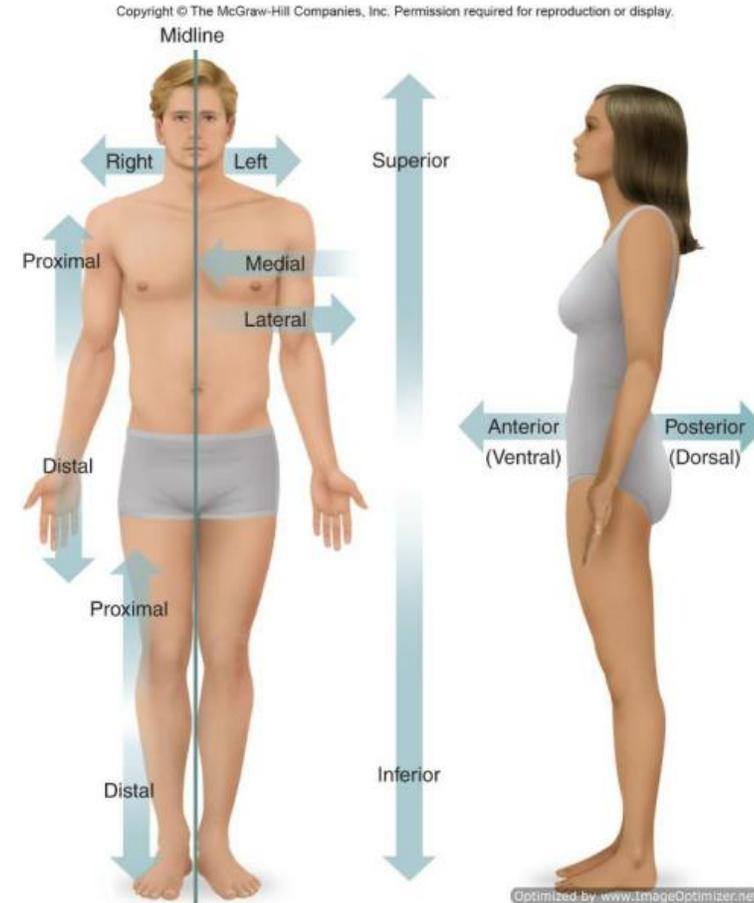
Directional Terms

- Superior (sup)
 - Pertaining to above
- Inferior (inf)
 - Pertaining to below
- Cranial
 - Pertaining to the head
- Cephalic
 - Pertaining to the head
- Caudad
 - Toward the tail (downward)
- Caudal
 - Pertaining to the tail (downward)



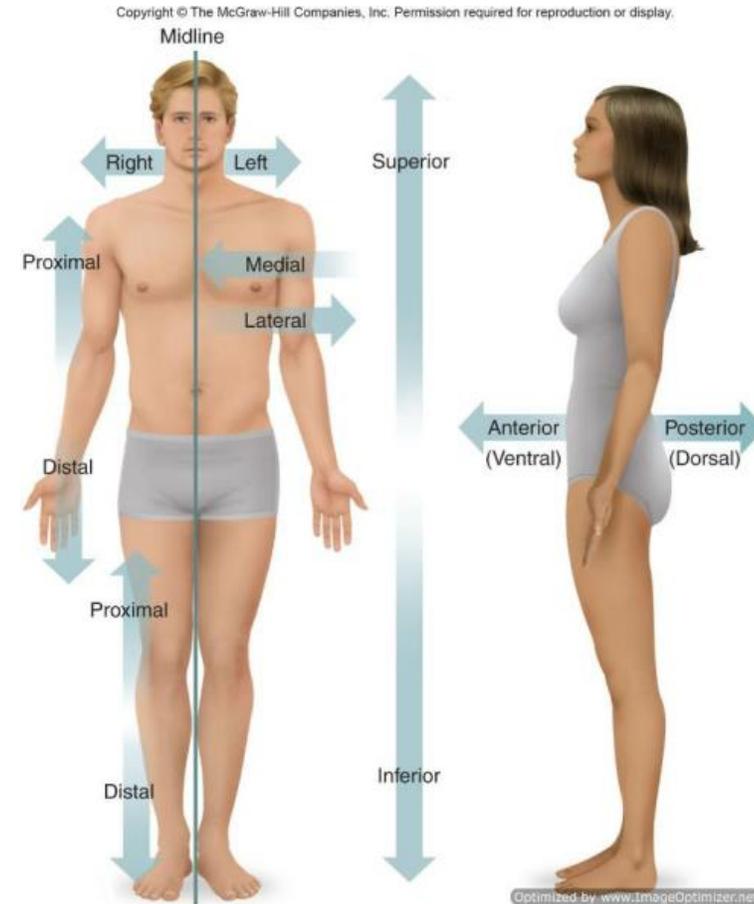
Directional Terms

- Medial (med)
 - Pertaining to the middle
- Lateral (lat)
 - Pertaining to the side
- Unilateral
 - Pertaining to one side
- Bilateral
 - Pertaining to two sides
- Contralateral
 - Pertaining to the opposite side
- Ipsilateral
 - Pertaining to the same side



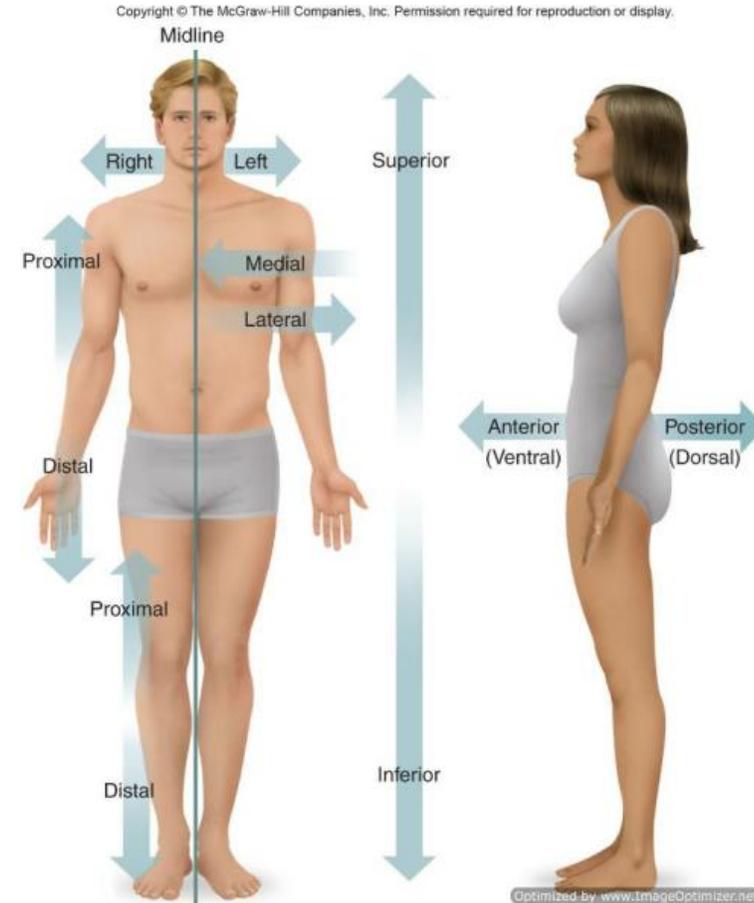
Directional Terms

- Superficial
 - At, near, or relatively close to the body surface
- Deep
 - Farther from the body surface



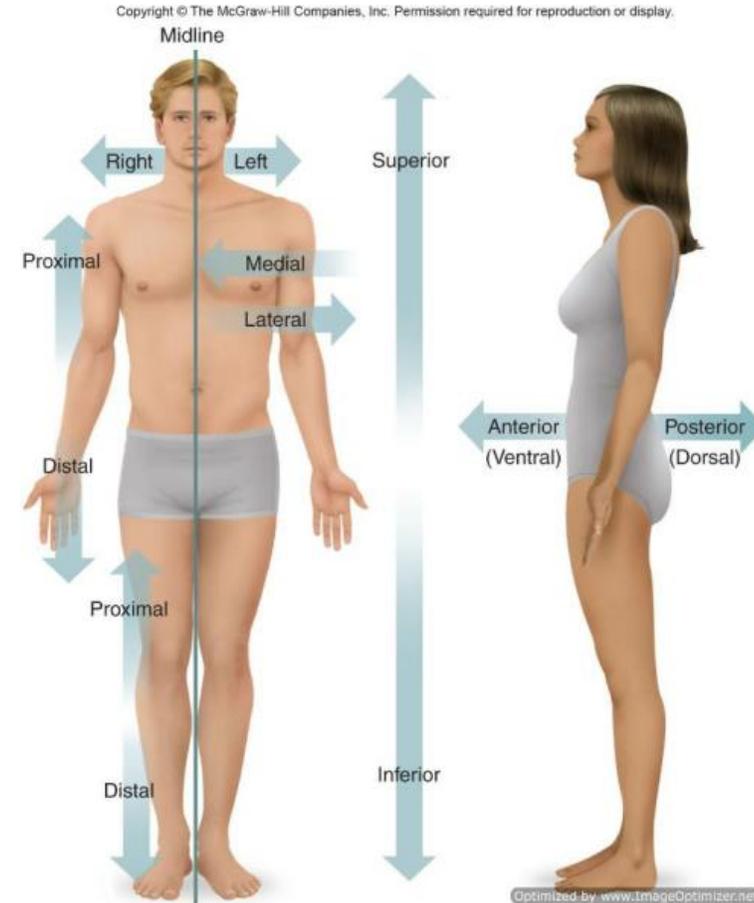
Directional Terms

- *Some directional terms are based on the relationship to the axial and appendicular skeleton*
- Axial and Appendicular Skeleton
 - Axial Skeleton includes
 - The skull (cranial and facial bones)
 - Bones associated with the cranium
 - The vertebral column
 - The thoracic cage
 - Appendicular Skeleton includes
 - Girdles (pectoral and pelvic)
 - Extremities (upper and lower)



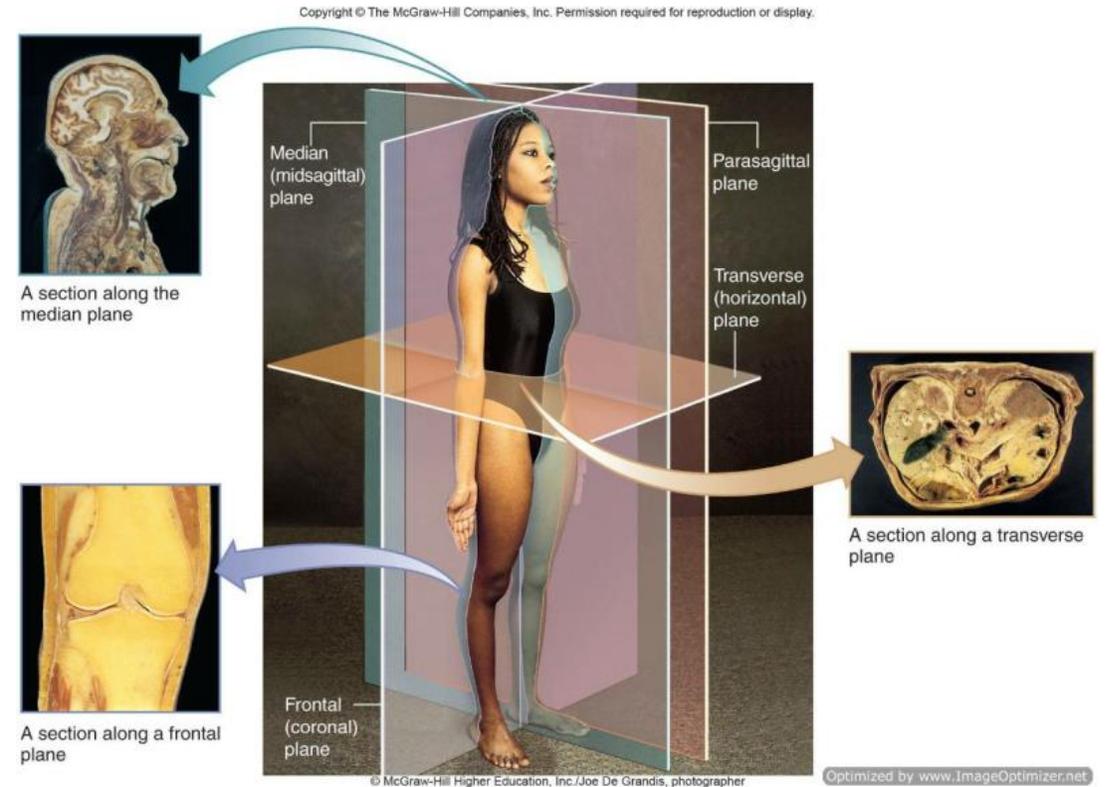
Directional Terms

- Proximal
 - Pertaining to near (to the point of attachment of a body part)
- Distal
 - Pertaining to away (from the point of attachment of a body part)



Anatomic Planes

- Frontal or Coronal
 - A plane that separates the body or structure into anterior and posterior sections
- Sagittal
 - A plane separating the body or a structure into left and right sections
 - A midsagittal plane separates into equal left and right halves
- Transverse or Horizontal
 - A plane that separates the body or structure into superior and inferior sections
- Oblique
 - A plane that separates the body or structure and is not one of those listed above

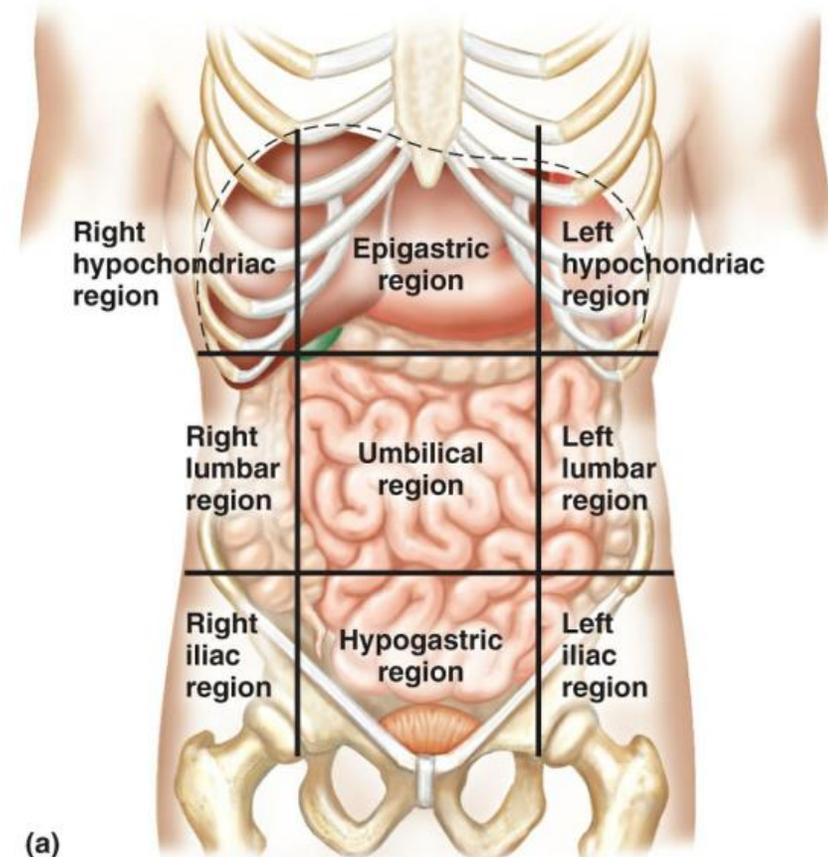


Abdominopelvic Regions

Divisions of the abdominopelvic cavity into 9 artificial divisions for note taking and communication

- Umbilical region
 - Around the navel (umbilicus)
- Epigastric region
 - Directly above the umbilical region
- Hypogastric region
 - Directly below the umbilical region
- Hypochondriac region
 - To the right and left of the epigastric region
- Lumbar region
 - To the right and left of the umbilical region
- Iliac region
 - To the right and left of the hypogastric region

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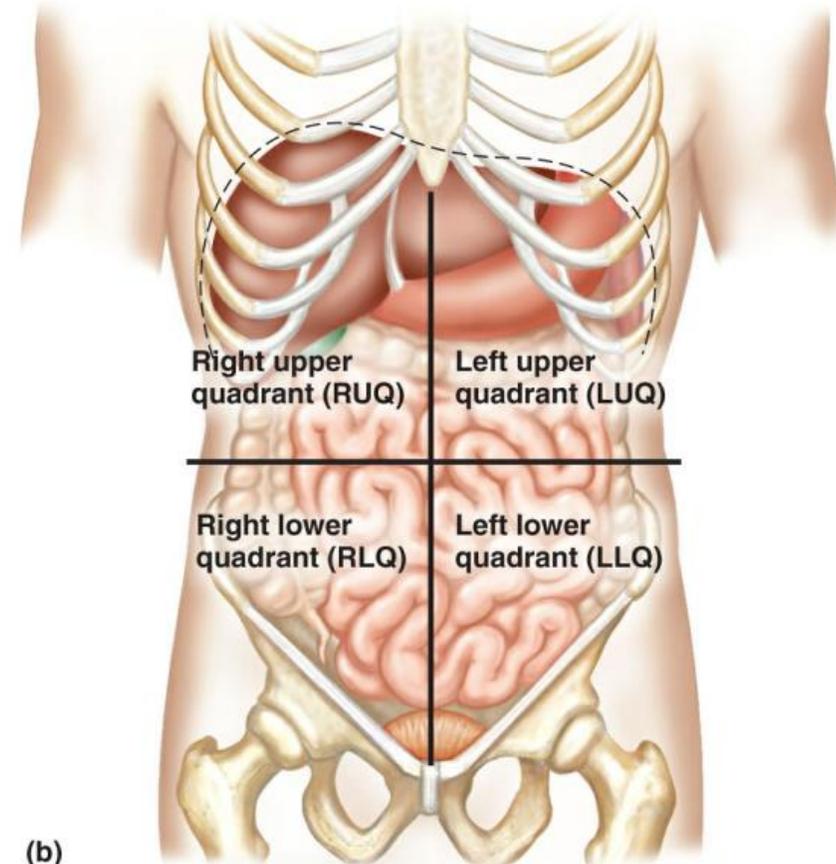


Abdominopelvic Quadrants

Divisions of the abdominopelvic cavity into 4 artificial divisions for note taking and communication

- **Right upper quadrant (RUQ)**
 - Refers to the area encompassing the right lobe of the liver*, the gallbladder*, part of the pancreas, portions of the small and large intestines, the right kidney
- **Left upper quadrant (LUQ)**
 - Refers to the area encompassing the left lobe of the liver, the stomach, the spleen, part of the pancreas, portions of the small and large intestines, the left kidney

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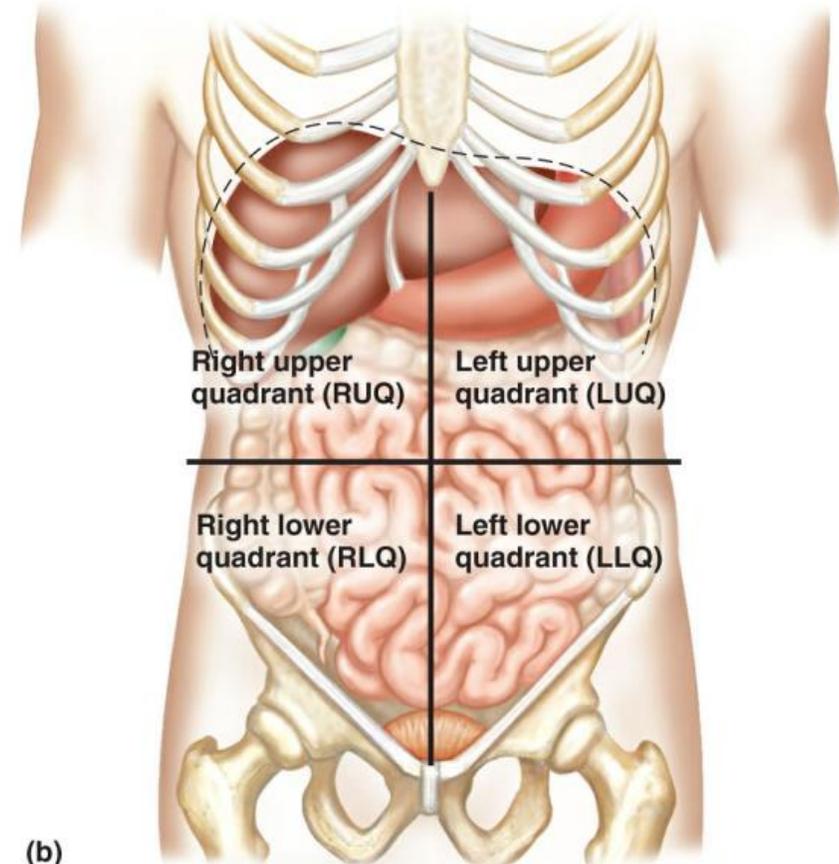


Abdominopelvic Quadrants

Divisions of the abdominopelvic cavity into 4 artificial division for note taking and communication

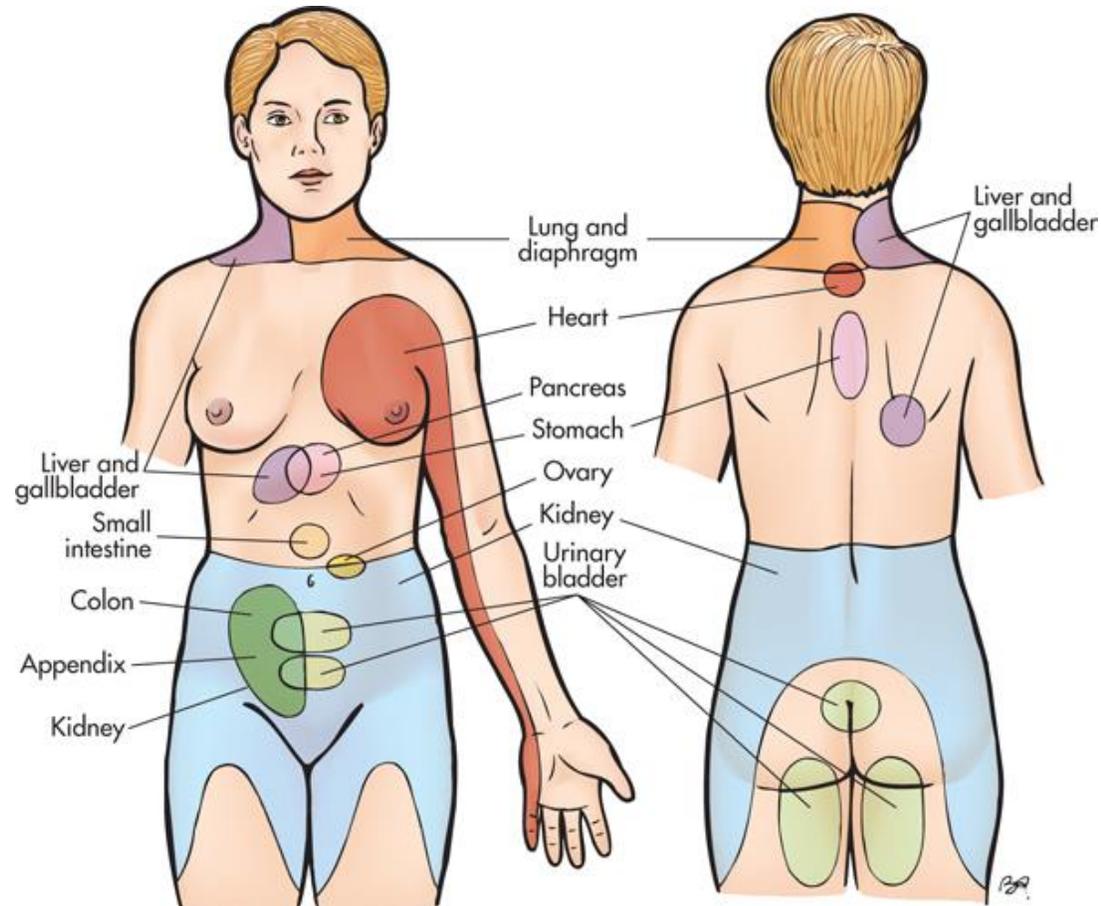
- **Right lower quadrant (RLQ)**
 - Refers to the area encompassing portions of the small and large intestines, the appendix*, the right ureter, and the right ovary and uterine tube in women and right spermatic duct in men
- **Left lower quadrant (LLQ)**
 - Refers to the area encompassing portions of the small and large intestines*, the left ureter, and the left ovary and uterine tube in women and the left spermatic duct in men

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(b)

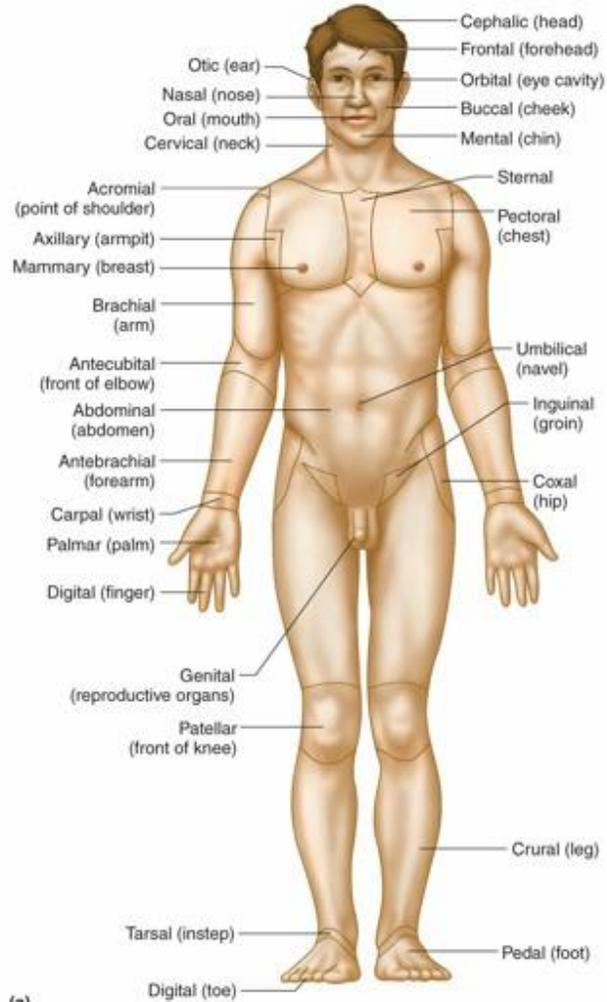
Visceral Pain Patterns



- * On the previous slides, these are key structures that may indicate pathology with pain in a particular quadrant.
- While pain in a particular quadrant is should be considered, it is important to know that visceral pathology can refer pain to areas away from their location.
- *Note: These referral zones are not part of this class.*

Terms specific for various body regions – Not on Test

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