Chapter 5 The Human Body

The Planes of the Body

Front side (Ventral):
Posterior: Back side (Dorsal):
Imaginary line that divides body:
Midclavicular line: Imaginary line at center of clavicle (collar bone):
Armpit line: Imaginary line at armpits:

Directional Terms (1 of 3)
- Right: The patient’s right
- Left: The patient’s left
- Away from the midline
- Toward the midline:

Directional Terms (2 of 3)
- Nearer or toward the head
- Nearer or toward the feet
- Toward the free end
- Toward the trunk:

Directional Terms (3 of 3)
- Close to or on the skin
- Deep: further inside the body
- Palmar: palm/front of hand
- Bottom of foot
- Apices: tip or topmost portion of a structure
- Body part that appears on both sides of midline:

Movement Terms
- Extremity (knee or elbow) in flexed position:
- Extremity in straight position:
- Extremity next to body:
- Extremity away from body:

Anatomic Positions
- Face down:
- Face up:
- Fowler’s position: body sitting up, knees bent:
- Recumbent: on side:
- Trendelenberg’s Position: body supine with head lower than feet:
- Position: Trendelenberg with legs elevated and the head and torso supine:

The Skeletal System:
• Gives _______________________ to the body
• Protects vital organs
• Consists of _______________________ bones
• Acts as a framework for attachment of muscles
• Designed to permit _______________________ of the body

12 The Skull
13 The Neck
14 Spinal Column
  • _______________________ spinal cord
  • Consists of 33 vertebrae
  • _________ Cervical
  • _________ Thoracic
  • _________ Lumbar
  • _________ Sacrum
  • _________ Coccyx

15 The Thorax
16 The Abdomen (1 of 2)
  • The abdomen is the _______________________ major body cavity.
  • It contains the major organs of _______________________ and excretion.

17 The Abdomen (2 of 2)
18 The Pelvis
19 The Lower Extremity
  • _______________________ : thighbone
    • -Largest and strongest bone of body
  • Patella: kneecap
  • Knee Joint
  • _______________________ : shin bone (lower leg)
  • _______________________ : smaller bone of lower leg

20 The Lower Extremity
  • _______________________ : ankle bone
  • Calcaneus: heel bone
  • Foot
    • tarsal bones
    • metatarsal bones
    • _______________________ -toes

21 The Lower Extremity
  • Hip
  • Thigh
  • _______________________ 
  • Leg
• Ankle

22 The Upper Extremity
• ______________________ : upper arm bone
• Elbow
• Radius: thumb side
• ______________________ : pinkie side
• Hand
  • carpal bones
  • metacarpal bones
  • ______________________

23 The Upper Extremity
• Shoulder girdle
• ______________________
• Elbow
• Forearm
• ______________________
• Hand

24 Joints
• Ball and Socket:
  • Allows hinging and ________________________

25 Functions of the Musculoskeletal System
• Gives the body ________________________
• Protects internal organs
• Provides for ________________________
• Consists of more than 600 muscles

26 Types of Muscle (1 of 2)
• _______________________(voluntary) muscle
  • Attached to the bones of the body
• _______________________(involuntary) muscle
  • Carry out the automatic muscular functions of the body

27 Types of Muscle (2 of 2)
• ________________________ muscle
• ________________________ muscle
• Has own blood supply and __________________________ system
• Can tolerate interruptions of blood supply for only very short periods

28 The Respiratory System

29 Diaphragm
• Has characteristics of both voluntary and involuntary muscles
• ________________________ -shaped muscle
• Divides thorax from _______________________
• ___________________ during inhalation
• Relaxes during _______________________

30  **Infant and Child Anatomy**
• Structures less _______________________
• Airway _______________________
• Tongue proportionally larger
• Dependent on ______________________ for breathing

31  **The Circulatory System**
• Consists of:
  • _______________________
  • _______________________
  • Blood _______________________

32  **The Nervous System**
• The nervous system controls the body’s voluntary and ______________________ actions.
  • ______________________ nervous system
    • Regulates voluntary actions
  • ______________________ nervous system
    • Controls involuntary body functions

33  **Central Nervous System (1 of 2) (Brain and Spinal Cord)**
34  **Central Nervous System (2 of 2)**

35  **Peripheral Nervous System**
• Links the organs of the body to the ______________________ nervous system.
  • ______________________ nerves carry information from the body to the central nervous system.
  • ______________________ nerves carry information from the central nervous system to the muscles of the body.

36  **The Skin (1 of 2)**
• Protects the body from the _______________________
• Regulates body _______________________
• Transmits information from environment to the _______________________

37  **The Skin (2 of 2)**

38  **Endocrine System**
• Complex message and control _______________________
  • Made up of 7 glands
  • Glands produce and release _______________________.

39  **Endocrine Glands (1 of 2)**
• ______________________ : regulates salt, sugar, and sexual function
• Ovary: regulates sexual function, characteristics, and reproduction in women
• _________________: regulates glucose metabolism
• _________________: regulates serum calcium

40  Endocrine Glands  (2 of 2)
• _________________: regulates all other endocrine glands
• _________________: regulates sexual function, characteristics, and
  reproduction in men
• _________________: regulates metabolism

41  Digestive System  (1 of 7)
• Mouth
  • Salivary Glands:
  • Located under the _________________
  • Produces _________________ (98% water)
• _________________: oral and nasal structures
• Esophagus:
  • Collapsible tube about 10” long
  • Connects mouth to stomach
• Muscle _________________ propel food

42  Digestive System  (2 of 7)
• Stomach:
  • Located in left _________________ quadrant (LUQ)
  • Stores food in large quantities and transfers to small intestines in regular portions
  • Pancreas:
  • Aids in digestion of fat, starch, and _________________
  • Produces about 2 liters of pancreatic juices per day
  • Produces _________________

43  Digestive System  (3 of 7)
• Liver:
  • Largest _________________ organ of the body
  • Poisonous substances produced by digestion are rendered harmless
  • Storage of _________________ and starch
  • Produces factors necessary for blood clotting and for producing plasma
  • Solid organ very rich in _________________
  • Fragile and easily _________________

44  Digestive System  (4 of 7)
• Bile Ducts:
  • Connects the liver to the _________________
  • The gall bladder is an outpouching of the bile ducts and stores bile
  • Major function of bile is the digestion of _________________
• Small Intestine:
  • The major _________________ organ of the abdomen
• Composed of the duodenum, jejunum, and ileum
• Produces enzymes and _________________ to aid in digestion

45  □ Digestive System  (5 of 7)
• Large Intestines:
• Consists of the cecum, _________________, and rectum
• The major function of the colon is to absorb the final 5-10% of digested food and water from the intestine to produce _________________ waste

46  □ Digestive System  (6 of 7)
• Appendix:
• 3 to 4” long that opens into the cecum in the right _________________ quadrant (RLQ) of the abdomen
• Easily obstructed, inflamed and infected
• Major cause of _________________ distress
• No known _________________

47  □ Digestive System  (7 of 7)
• Rectum:
• Lowermost end of the _________________
• Stores _________________ until it is expelled
• Contains _________________ to control the escape of waste products

48  □ Urinary System