Chapter 5 The Human Body

The Planes of the Body

- Front side (Ventral)
- Back side (Dorsal)
- Imaginary line that divides body
- Imaginary line at center of clavicle (collar bone)
- 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
- further inside the body
- palm/front of hand
- bottom of foot
- 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
- body sitting up, knees bent
- recumbent: on side
- body supine with head lower than feet
- 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 ______________________
• ______________________ :
  – Allows for only hinging

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

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<thead>
<tr>
<th>Digestive System</th>
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<tbody>
<tr>
<td>Stomach:</td>
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<tr>
<td>• Located in left _______________________ quadrant (LUQ)</td>
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<tr>
<td>• Stores food in large quantities and transfers to small intestines in regular portions</td>
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<td>Pancreas:</td>
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| • Aids in digestion of fat, starch, and _______________________
| • Produces about 2 liters of pancreatic juices per day |
| • Produces _______________________

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<thead>
<tr>
<th>Digestive System</th>
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<tbody>
<tr>
<td>Liver:</td>
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<tr>
<td>• Largest _________________ organ of the body</td>
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<td>• Poisonous substances produced by digestion are rendered harmless</td>
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<tr>
<td>• Storage of _________________ and starch</td>
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<tr>
<td>• Produces factors necessary for blood clotting and for producing plasma</td>
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<tr>
<td>• Solid organ very rich in _______________________</td>
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<td>• Fragile and easily _______________________</td>
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<tbody>
<tr>
<td>Bile Ducts:</td>
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<tr>
<td>• Connects the liver to the _______________________</td>
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<td>• The gall bladder is an outpouching of the bile ducts and stores bile</td>
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<tr>
<td>• Major function of bile is the digestion of _________________</td>
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<td>Small Intestine:</td>
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<tr>
<td>• The major _________________ organ of the abdomen</td>
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<tr>
<td>• Composed of the duodenum, jejunum, and ileum</td>
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<tr>
<td>• Produces enzymes and _________________ to aid in digestion</td>
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<tbody>
<tr>
<td>Large Intestines:</td>
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<tr>
<td>• Consists of the cecum, _________________ , and rectum</td>
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<tr>
<td>• The major function of the colon is to absorb the final 5-10% of digested food and water from the intestine to produce _________________ waste</td>
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<td>Appendix:</td>
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<tr>
<td>• 3 to 4” long that opens into the cecum in the right _________________ quadrant (RLQ) of the abdomen</td>
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<td>• Easily obstructed, inflamed and infected</td>
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<td>• Major cause of _________________ distress</td>
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<tr>
<td>• No known _______________________</td>
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| 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