ANATOMICAL TERMINOLOGY: Directional Terms

There is universal agreement in the field of anatomy that the relative description of the human body is always in a specific position called ______________. In this position, the individual is standing upright, face forward, with the upper limbs positioned at the sides, the palms turned forward, and the feet flat on the floor.

**FIGURE A**

Directional terms are used by anatomists to locate numerous body structures in relationship to one another. Label the following directional terms on Figure B, based on their description below. Then, using the same directional terms, fill in the blanks to describe the body parts relationship to one another.

1. Superior: ____________________________________________________________________________
   
   *Example:* The head is ______________ to the shoulders.

2. Inferior: ______________________________________________________________________________
   
   *Example:* The intestines are ______________ to the lungs.

3. Anterior (also known as ventral): __________________________________________________________________________
   
   *Example:* The trachea is ______________ to the esophagus.

4. Posterior (also known as dorsal): __________________________________________________________________________
   
   *Example:* The esophagus is ______________ to the trachea.

5. Medial: ______________________________________________________________________________
   
   *Example:* The ulna is ______________ to the radius.

6. Lateral: ______________________________________________________________________________
   
   *Example:* The lungs are ______________ to the heart.

7. Intermediate: __________________________________________________________________________
   
   *Example:* The index finger is ______________ to the thumb and middle finger.

8. Proximal: ______________________________________________________________________________
   
   *Example:* The knee is ______________ to the shin.

9. Distal: ________________________________________________________________________________
   
   *Example:* The elbow is ______________ the shoulder.

10. Superficial: __________________________________________________________________________
    
    *Example:* The skin is ______________ to the muscles.

11. Deep: ________________________________________________________________________________
    
    *Example:* The ribs are ______________ to the skin.
1. The heart is ________________ to the lungs.
2. The thumb is ________________ to the wrist.
3. The kneecap is ________________ to the ankle.
4. The nose lies on the ________________ surface of the body.
5. The eyes are located ________________ to the nose.
6. The ears are situated ________________ to the head.
7. The upper arm muscle is ________________ to the skin.
8. The ring finger is located ________________ relative to the thumb.
9. The spine is located ________________ .
10. The esophagus is located ________________ to the trachea.
11. The large intestine is ________________ to the stomach.
12. The hamstrings are located ________________ to the quadriceps.
13. The brain is ________________ to the heart.
14. The index finger is ________________ to the thumb and middle finger.
15. The liver is ________________ to the diaphragm
16. Fingers are located ________________ to the wrist bones.
17. The skin on the dorsal surface of your body is said to be located on your ________________ surface.
18. The great(big) toe is ________________ to the little toe.
19. The skin on your leg is ________________ to the muscle tissue in your leg.
20. When you float face down in a pool, you are lying on your ________________ surface.
21. The lungs and the heart are located ________________ to the abdominal organs.

In Anatomy specific terms are used to explain the location of body organs, systems, as well as body movements.

1. Fill in the missing words to make the passage correct using words from the word bank provided.

| reference, side, stand, body, arms, hands, anatomical, forward |

All anatomical terms have a ________________ point which is called the ________________ position. This is a ________________ position where you stand up, head straight and ________________ by your ________________, with the palm of your ________________ facing ________________.

Complete these sentences using the terms superior and inferior.
2. The hands are ________________ to the feet
3. The knees are ________________ to the waist.
4. The elbow is ________________ to the wrist.
5. The calf muscle is ________________ to the ankle.

Complete these sentences using the terms anterior and posterior.
6. The heel is ________________ to the toes.
7. The biceps are ________________ to the triceps.
8. The hamstring is ________________ to the quadriceps.

Complete these sentences using the terms lateral and medial.
9. The arms are ______________________ to the midline.
10. The neck is ______________________ to the arms.
11. The shoulders are ______________________ to the midline.

Anatomical Terms – Word Match
Match the correct terms with their meanings. Place the correct letter in the empty column

_____ Superior a. closer to the top of the limb
_____ Inferior b. lying face downwards
_____ Anterior c. towards the head, or above
_____ Posterior d. back or at the back of
_____ Lateral e. closer toward the bottom or end of a limb
_____ Medial f. towards the feet, or below
_____ Proximal g. front, or in front of
_____ Distal h. lying face upwards
_____ Supine i. toward the side of the body, or away from the midline of the body
_____ Prone j. toward the midline of the body

Circle the answer which will make the sentence correct.

13. The big toe is on the lateral/medial side of the body?
14. The shoulder blade is on the anterior/posterior side of the body?
15. The hand is distal/proximal to the elbow?
16. The hips are superior/inferior to the shoulders?
17. The shoulders are medial/lateral to the spine?
18. The knee is distal/proximal to the ankle?
19. What is the importance of having the anatomical position?

Multiple Choice

1. Which of the following sets of directional terms are most appropriately referred to as opposite?
   a. Distal and proximal c. Superior and ventral
   b. Medial and inferior d. Anterior and deep

2. The anatomical term that means "away from the midline of the body" is
3. The ankle is _______ to the knee.
   a. deep       b. Peripheral      c. Superior      d. distal

4. The concept of anatomical position stipulates all of the following EXCEPT the
   a. forearms are supine       b. feet are slightly apart
   c. arms are held down to the sides       d. mouth is closed

Several incomplete statements are listed below. Correctly complete each statement by choosing the
appropriate anatomical term from the key. Record the key letters and/or terms on the correspondingly
numbered blanks below. Some terms are used more than once.

<table>
<thead>
<tr>
<th>a.</th>
<th>anterior</th>
<th>d.</th>
<th>inferior</th>
<th>g.</th>
<th>posterior</th>
<th>j.</th>
<th>superior</th>
</tr>
</thead>
<tbody>
<tr>
<td>b.</td>
<td>distal</td>
<td>e.</td>
<td>lateral</td>
<td>h.</td>
<td>proximal</td>
<td>k.</td>
<td>transverse</td>
</tr>
<tr>
<td>c.</td>
<td>frontal</td>
<td>f.</td>
<td>medial</td>
<td>l.</td>
<td>sagittal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the anatomical position, the face and palms are on the _1_ body surface; the buttocks and
shoulder blades are on the _2_ body surface; and the top of the head is the most _3_ part of the
body. The ears are _4_ and _5_ to the shoulders and _6_ to the nose. The heart is _7_ to the vertebral
column (spine) and _8_ to the lungs. The elbow is _9_ to the fingers but _10_ to the shoulder. The
abdominopelvic cavity is _11_ to the thoracic cavity and _12_ to the spinal cavity. In humans, the
dorsal surface can also be called the _13_ surface; however, in quadruped animals, the dorsal surface
is the _14_ surface.

1. _____________________  5. _____________________  10. _____________________
2. _____________________  6. _____________________  11. _____________________
3. _____________________  7. _____________________  12. _____________________
4. _____________________  8. _____________________  13. _____________________
9. _____________________  14. _____________________

Fill in the blank completing the analogy.
A. anterior is to ventral as posterior is to _________________
B. superficial is to external as deep is to _________________
C. cranial is to caudal as superior is to _________________
D. medial is to lateral as proximal is to _________________