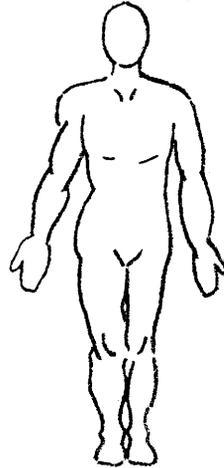


I. Anatomical Positions, Directions, and Planes

A. Anatomical Position - Standing, arms hanging, palms forward. Despite definition, the term also applies when lying or sitting. See diagram below.



B. Planes of the Body - A plane is a surface in which if any two points are taken, a straight line that is drawn to join these two points lies wholly within that plane or surface.

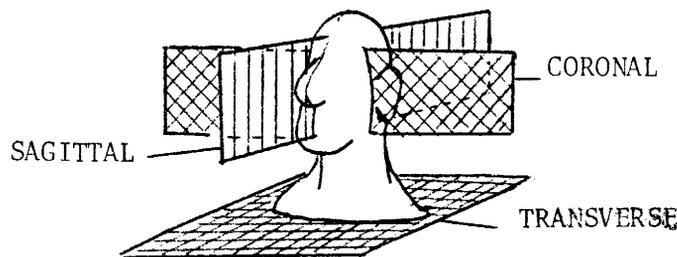
C. Sagittal or Median Plane - A vertical plane running from front to back (Antero-Posterior) dividing the body into right and left parts. If the plane divides the body into equal right and left parts by running through the middle of the breast bone (sternum) it is sometimes called the midsagittal or cardinal-sagittal plane.

D. Median Plane of an Extremity - A plane running lengthwise through an extremity from front to back. This plane must pass through the third finger of the hand or second toe of the foot. It is used as a reference plane to movements that involve spreading the toes or fingers (except thumb) apart or moving them together.

E. Transverse Plane - A plane that divides the body or limbs into upper and lower parts, in relation to gravity and the anatomical position.

F. Frontal or Coronal Plane - A plane dividing the body into an anterior and a posterior (ventral and dorsal) portion.

Diagrams of Anatomical Reference Planes



G. Anterior - Towards the front. Anatomists and zoologists differ in interpreting the two terms immediately above. When considering a four-legged animal, the zoologists refer to the head as anterior, the tail posterior, the animal back as dorsal and under or belly side as ventral. Anatomists, when considering the human body, refer to the head as superior, toward the feet as inferior, the front of the body as anterior or ventral and the back of the body as posterior or dorsal.

H. Posterior (Dorsal) - Towards the back.

I. Superior (Cephalic) - Towards the head.

J. Inferior (Caudal) - Towards the feet.

K. Proximal - Nearest; closer to any point of reference. The elbow is proximal to the wrist on the upper extremity.

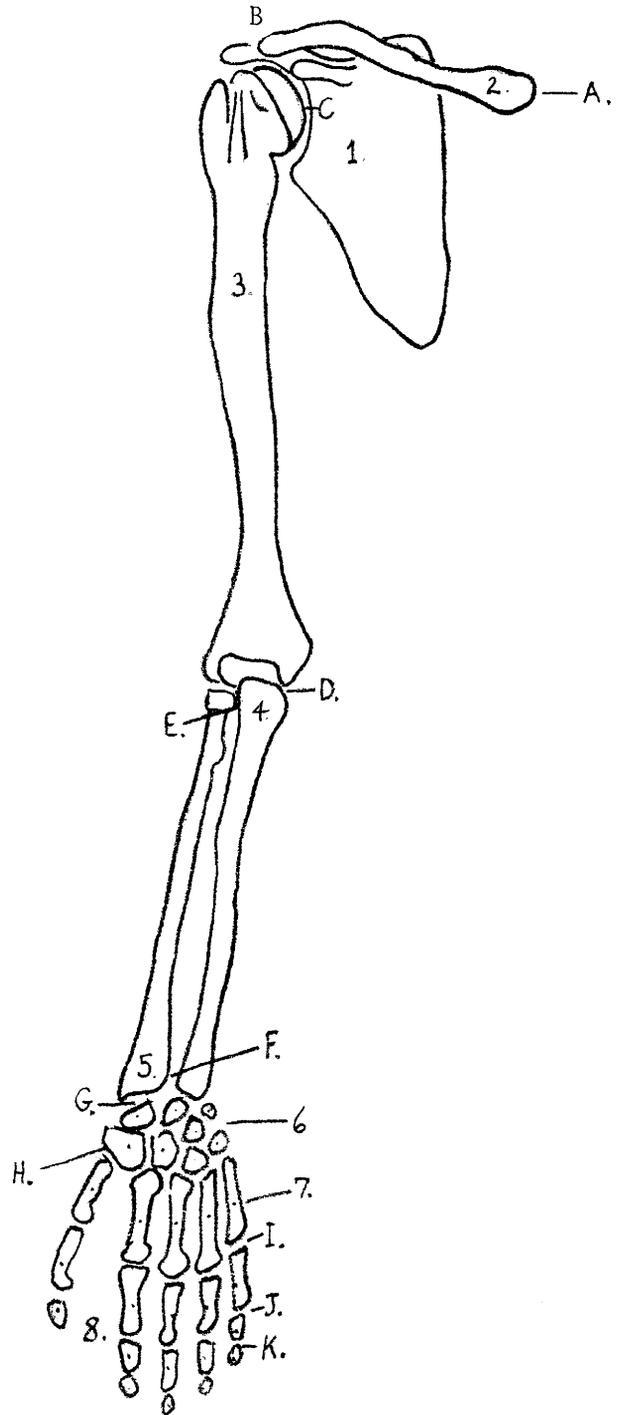
L. Distal - Remote; farther from any point of reference. The elbow is distal to the shoulder joint.

M. Lateral - A point or area that is more distant from the midsagittal or median plane. The outer side of the elbow is lateral when compared with for example, the inner side.

N. Medial - A point or area that is closer to the midsagittal plane than another point or area.

Bones of the Upper Extremity

- 1. Scapula
- 2. Clavicle
- 3. Humerus
- 4. Ulna
- 5. Radius
- 6. Carpals
- 7. Metacarpals
- 8. Phalanges



Joints of the Upper Extremity

- A. Sternoclavicular
- B. Acromioclavicular
- C. Glenohumeral
- D. Elbow
- E. Proximal Radio-ulnar
- F. Distal Radio-ulnar
- G. Radiocarpal (wrist)
- H. Carpometacarpal
- I. Metacarpal Phalangeal
- J. Proximal Interphalangeal
- K. Distal Interphalangeal