# INTRODUCTION: WHAT IS THE STRUCTURE OF MY BODY?

#### **Human Anatomy**

The study of the structures that make up the human body and how those structures relate to each other.

The Human Structure determines function

The structures of the human body are well-designed for efficient movement

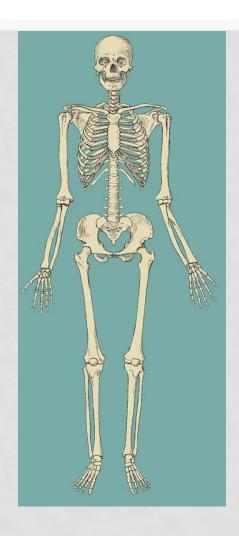


#### ANATOMICAL POSITION

- Starting reference point for describing the human body
- It is universally accepted
- it is used in all anatomical descriptions

#### ANATOMICAL POSITION

- Standing erect
- Facing forward
- Arms hanging at the sides
- Palms facing forward and thumbs outward
- Legs straight
- Heels, feet and great toes parallel to each other

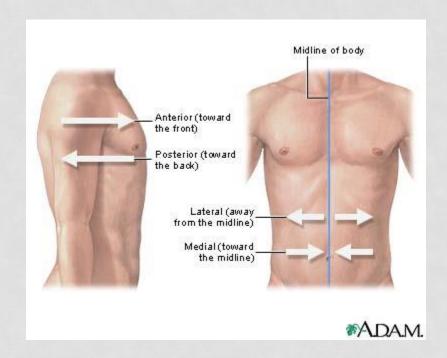


#### DIRECTIONAL TERMS

 All directional terms are based on the assumption that the body is in the anatomical position.

#### LATERAL-MEDIAL

- Lateral- away from the midline of the body
- Medial- toward the midline
- E.g. Your ears are lateral to your cheeks and your cheeks are medial to your ears



# ANTERIOR-POSTERIOR VENTRAL-DORSAL

- Anterior- In front of or front of your body
- Posterior behind or back of your body
- E.g. Your lips are anterior to your teeth and your teeth are posterior to your lips
- E.g. In the anatomical position, your palms are facing the anterior of your body

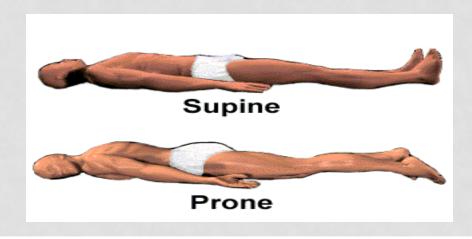


#### SUPERIOR-INFERIOR

- Inferior Below
- Superior Above
- E.g. your lips are superior to your chin and your chin is inferior to your lips

#### **SUPINE & PRONE**

- SUPINE
  Lying on the back
  e.g. when performing a bench press
- PRONE
  Lying face down
  e.g. when preparing to perform a push-up



#### **PLANES**

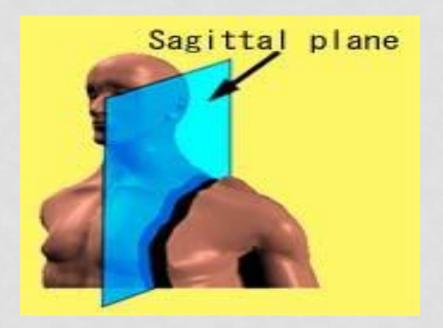
- Are imaginary flat surfaces that divide the human body
- They are used to:
   divide the body for further identification of
   particular areas
   describe different movements or actions
- Always refer to the body in the anatomical position

### MEDIAN OR MIDSAGITTAL PLANE

 A vertical plane that bisects the body into right and left halves

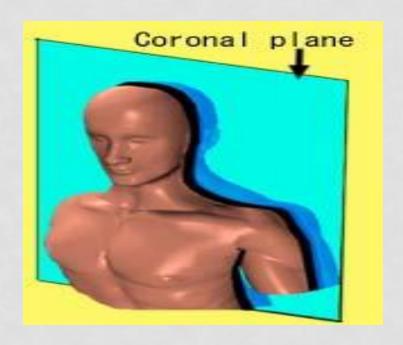
Sagittal plane is any plane parallel to the median

plane



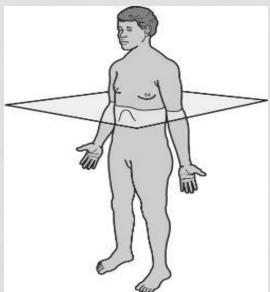
#### CORONAL OR FRONTAL PLANE

- A vertical plane that bisects the body into front and back
- It is at right angels to the median plane



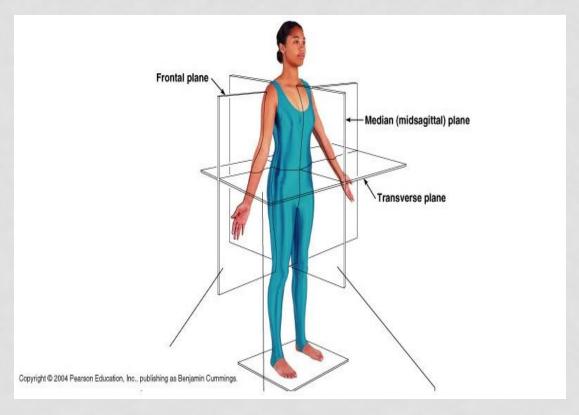
### TRANSVERSE OR HORIZONTAL PLANE

- A horizontal plane that bisects the body into top and bottom
- It's at right angles to both the median and coronal planes



### **CENTRE OF GRAVITY**

 The point at which the medial, frontal and transverse planes intersect



#### ANATOMICAL AXES

- A series of imaginary lines
- Used to describe the direction of movement at joints

- Horizontal axis extends from one side of the body to the other
- Longitudinal axis is vertical, running from head to toe
- Antero-posterior axis extends from the front of the body to the back
- A body movement can be described in terms of the anatomical plane through which it occurs and the axis around which it rotates
- The general rule is that the axis of rotation is always perpendicular to the plane of movement