

## **Axis and plane**

Anatomical position :

It is the body is upright with the arms by the sides, shoulder in neutral rotation, palms facing forward, elbows and fingers extended and the thumbs in an adducted position with the thumb facing forward. The lower limbs are straight, the feet slightly apart with the second toes facing forward.

Axis : It is an imaginary line about which the movement takes place

Plane : It is a surface on which the movement takes place.

Axis and plane are always perpendicular to each other.

**Three basic planes are used in anatomy:**

### **PLANES**

A sagittal plane/ longitudinal plane, is perpendicular to the ground and divides the body into left and right.

A coronal or frontal plane is perpendicular to the ground and divides the body into dorsal (posterior or back) and ventral (anterior or front) portions.

A transverse plane, also known as an axial plane or cross-section, divides the body into cranial (head) and caudal (tail) portions. It is parallel to the ground, which (in humans) separates the superior from the inferior, or put another way, the head from the feet.

### **Axes**

There are three axes of rotation.

Sagittal axis - passes horizontally from posterior to anterior and is formed by the intersection of the sagittal and transverse planes.

Frontal axis - passes horizontally from left to right and is formed by the intersection of the frontal and transverse planes.

Vertical axis - passes vertically from inferior to superior and is formed by the intersection of the sagittal and frontal planes.