

Planes of movement and axes of rotation



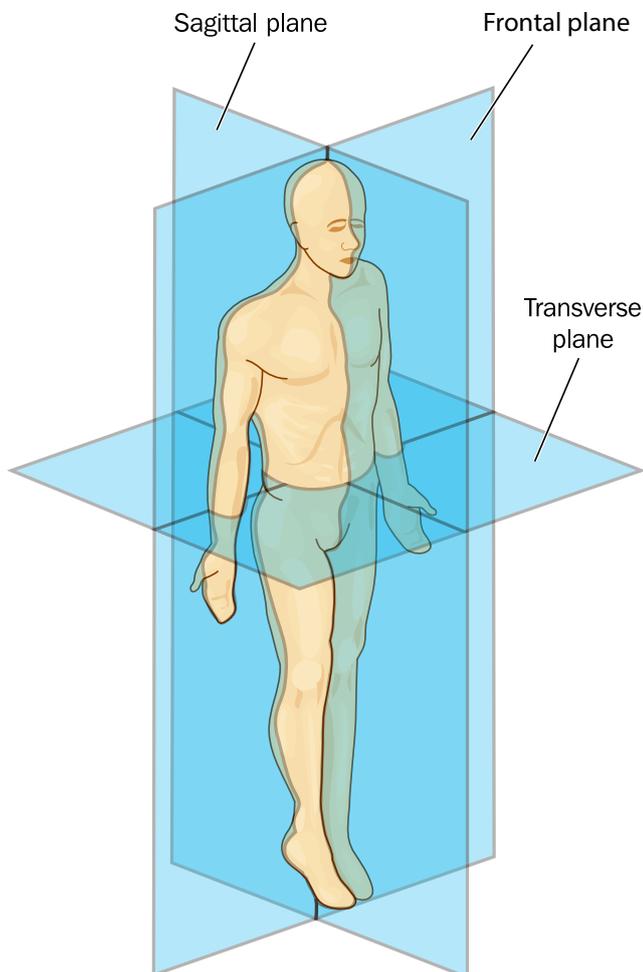
Know the location of the planes of movement in the body and their application to physical activity and sport:

- frontal
- transverse
- sagittal

Know the location of the axes of rotation in the body and their application to physical activity and sport

- frontal
- transverse
- longitudinal

PLANES OF MOVEMENT



- Frontal**
 The **frontal plane** (sometimes called the coronal plane) is perpendicular to the ground and divides the body into back (or posterior) and front (or anterior) portions. Movements in this plane are sideways movements, called abduction and adduction.
- Transverse**
 The **transverse plane**, (also known as an axial plane or cross-section), divides the body into top and bottom. Movements in this plane are rotational in nature, such as internal and external rotation, pronation and supination.
- Sagittal**
 The **sagittal plane** passes through the body front to back, so dividing it into left and right. Movements in this plane are the up and down movements of flexion and extension.

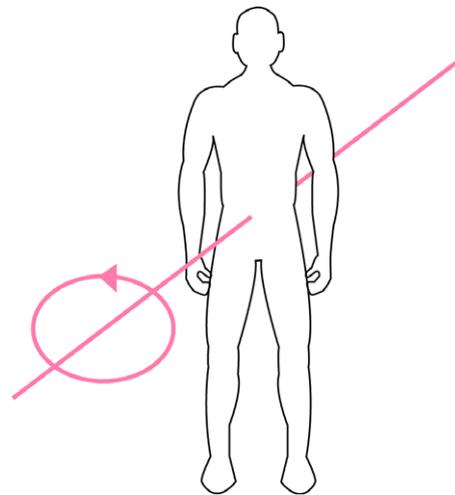
AXES OF ROTATION

An axis is a straight line around which an object rotates. Movement at a joint takes place in a plane about an axis. There are three axes of rotation:

- Frontal
- Transverse
- Longitudinal

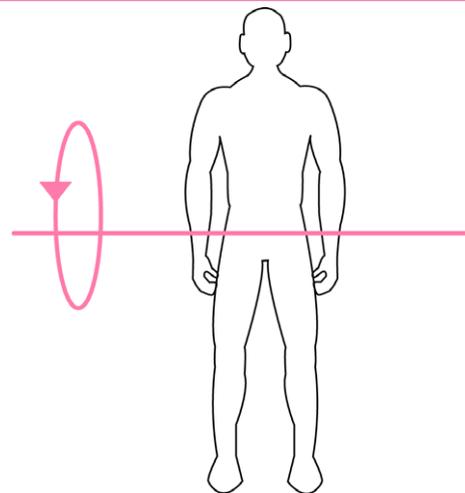
Frontal axis - runs horizontally from the front to back of your body and is formed by the intersection of the sagittal and transverse planes.

When a gymnast performs a cartwheel they have rotated around the frontal axis.



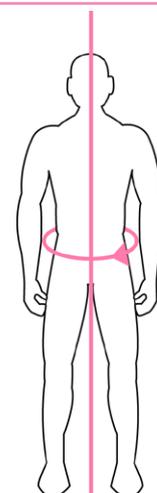
Transverse axis - passes horizontally from left to right and is formed by the intersection of the frontal and transverse planes.

A somersault is a rotation through the transverse axis.



Longitudinal axis - passes vertically from the top to the bottom of your body and is formed by the intersection of the sagittal and frontal planes.

When a gymnast performs a three hundred and sixty degree turn, they're rotating around the longitudinal axis.





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