






Paper 1: Movement at a joint

Movement at Different Joints

Different joints allow for different movements. The table below outlines the movements possible at different joints and the bones and muscles located at each joint.

Joint	Joint type	Bones of the joint	Movement possible	Main muscles contracting to cause movement
	Hinge	Femur, tibia, fibula and patella	Flexion	Hamstrings
			Extension	Quadriceps
	Hinge	Humerus, radius and ulna	Flexion	Biceps
			Extension	Triceps
	Hinge	Tibia, fibula and talus	Plantar flexion	Soleus
			Dorsiflexion	Tibialis anterior
	Ball-and-socket	Clavicle, scapula and humerus	Abduction	Deltoid
			Adduction	Latissimus dorsi, Pectorals
			Rotation	Rotator cuff
			Flexion	Pectorals, Deltoid
			Extension	Latissimus Dorsi, Deltoid
	Ball-and-socket	Pelvis and femur	Abduction	Gluteals
			Adduction	Hip flexor
			Rotation	Gluteals
			Flexion	Hip flexor
			Extension	Gluteals

Ball-and-socket joint:

- Has the largest range of motion
- Movement can occur in all planes



Hinge joint:

- Has a limited range of motion
- Movement can only occur in one plane

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