A LEVEL PE

Anatomy & Physiology

The Muscular Skeletal system

The aim for this module is to learn and understand:

- 8 joints
- 15 pairs of muscles

Key Vocabulary

These words will be crucial to understanding the movement of the muscular skeletal system:

Articulation – where two bones meet together at a joint

Flexion – when the joint angle decreases
Extension – when the joint angle increases

Abduction – moving a limb away from the body's mid-line
Adduction – moving a limb towards the body's mid-line

Circumduction – circular motion of the arm
Rotation – When a body part turns about its long axis

Pronation – turning the wrist to make palm face the ground
Suppination – turning the wrist to make palm face the sky

Lateral flexion – bending the spine sideways

Dorsiflexion – making the toes point upwards
Plantarflexion – making the toes point to the floor

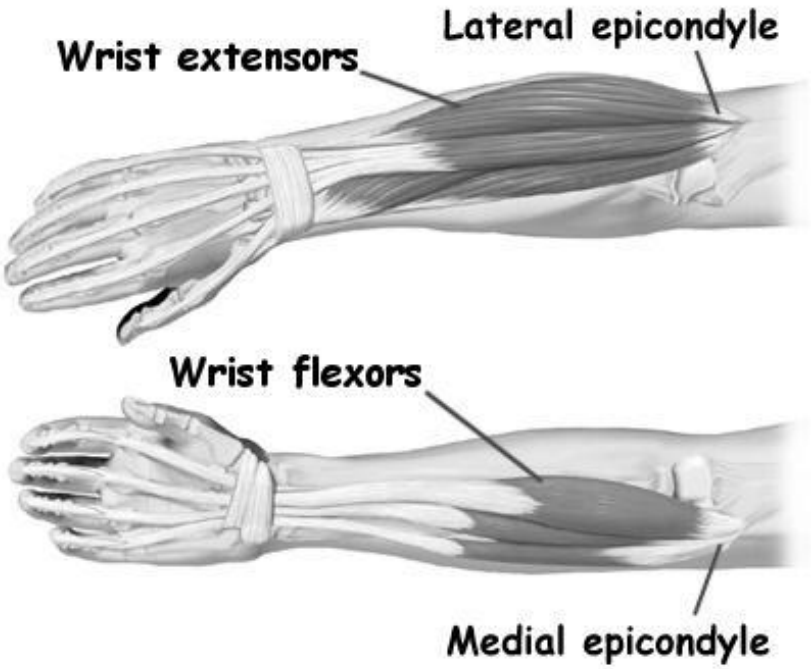
Agonist – the prime mover muscle that is contracting
Antagonist – the resisting muscle that is lengthening

The Wrist Joint

Joint type:

……..

The articulating bones at the wrist are the radius, ulna and carpals.



The movements possible at the wrist are:

…….. & ……..

	Movement 1	Movement 2
Agonist		
Antagonist		

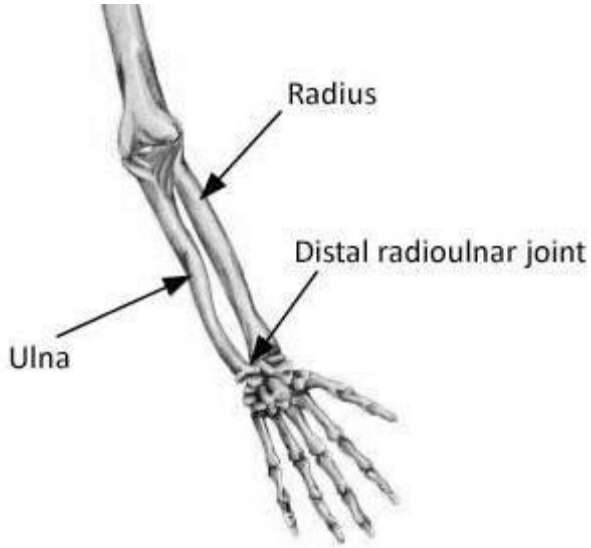
Examples from sport:

The Radio-ulnar Joint

Joint type:

……

The articulating bones at the radio-ulnar joint are the radius and ulna.



The movements possible at the radio-ulnar joint are:

…… & ……

	Movement 1	Movement 2
Agonist		
Antagonist		

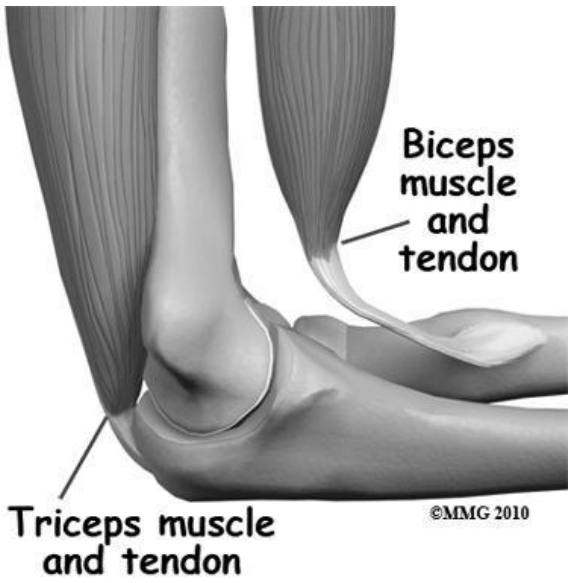
Examples from sport:

The Elbow Joint

Joint type:

……

The bones that articulate at the elbow joint are the humerus, radius and ulna.



The movements possible at the elbow joint are:

…… & ……

	Movement 1	Movement 2
Agonist		
Antagonist		

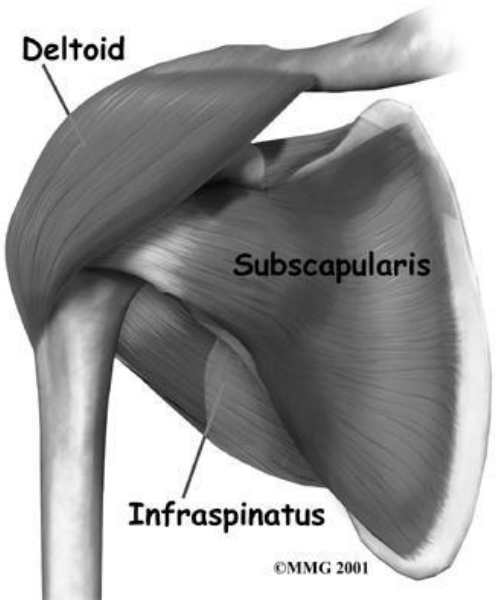
Examples from sport:

The Shoulder Joint

Joint type:

……

The bones that articulate at the shoulder joint are the humerus and scapula.



The movements possible at the shoulder joint are:

…… & ……

…… & ……

…… & ……

……

……

	Movement 1	Movement 2	Movement 3	Movement 4
Agonist				
Antagonist				

	Movement 5	Movement 6	Movement 7	Movement 8
Agonist				
Antagonist				

Examples from sport:

The Spine

Joint types:

……., ……. &

……

The bones that articulate in the spine are the vertebrae (Cervical 7, Thoracic 12, Lumbar 5, Sacrum, Coccyx).

The movements possible at the spine are:

…….. & ……

……..

……

	Movement 1	Movement 2	Movement 3	Movement 4
Agonist				
Antagonist				

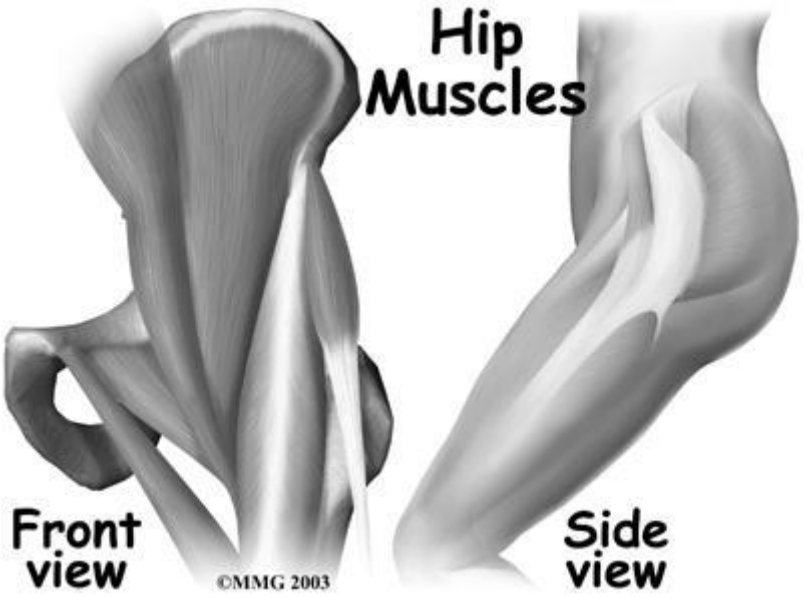
Examples from sport:

The Hip Joint

Joint types:

……..

The bones that articulate at the hip are the pelvis and femur.



The movements possible at the hip joint are:

…….. & ……..

…….. & ……..

	Movement 1	Movement 2	Movement 3	Movement 4
Agonist				
Antagonist				

Examples from sport:

The Knee Joint

Joint type:

……

The bones that articulate at the knee joint are the femur and tibia.

The movements possible at the knee joint are:

…… & ……

	Movement 1	Movement 2
Agonist		
Antagonist		

Examples from sport:

The Ankle Joint

Joint type:

……..

The bones that articulate at the ankle joint are the tibia, fibula and talus.

The movements that are possible at the ankle joint are:

…….. & ……..

	Movement 1	Movement 2
Agonist		
Antagonist		

Examples from sport: