A LEVEL PE

Anatomy & Physiology



The Muscular Skeletal system

The aim for this module is to learn and understand:

- <u>8</u> 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 Join	<u>t</u> Wrist extens	Lateral epicondyle
Joint type:		
The articulatin	ng 💮	
bones at the w	rist Wrist	flexors
are the <u>radius</u> ,	ulna =	
and <u>carpals</u> .	The state of the s	
•		/ Medial epicondyle
	&	
	Movement 1	Movement 2
Agonist		
Antagonist		

Examples from sport:

The Radio-ulnar J	<u>oint</u>				
Joint type:					
•••••	•••••	Distal radioulnar joint			
The articulating bones at the radio-ulnar joint are the radius and ulna.					
The movements p	oossible at the radi	o-ulnar joint are:			
	&				
	Movement 1	Movement 2			
Agonist					
Antagonist					
Examples from sport:					

The Elbow Joint Joint type: The bones that a the elbow join humerus, radius a	t are the	Tricep	Biceps muscle and tendon os muscle tendon emmg 2010			
The movements p	The movements possible at the elbow joint are:					
	Movement 1		Movement 2			
Agonist						
Antagonist						
Examples from sport:						

	<u>llder Joint</u>		Deltoid	Alexander .
Joint type	: :			1
				Subscapularis
	joint are	culate at th the <u>humer</u> ı	<u>1S</u>	pinatus ©MMG 2001
	•		shoulder jo	
	Movement 1	Movement 2	Movement 3	Movement 4
Agonist				
Antagonist				
) / · · · ·	Movement 6	Movement 7	Movement 8
J	Movement 5	Movement	Wiovellient /	Movement
Agonist	Movement 5	Movement o	Movement 7	Wiovelliene o

The Spine							
Joint types	Joint types:						
	&						
The bones that articulate in the spine are the <u>vertebrae</u> (Cervical 7, Thoracic 12, Lumbar 5, Sacrum, Coccyx).							
The moven	nents possi	ble at the sp	oine are:				
		-					
	Movement 1	Movement 2	Movement 3	Movement 4			
Agonist							
Antagonist							

Examples from sport:

The Hip Joi Joint types:			Musc	les
The bo	nes tha	t 📶	18K - /	
articulate a	t the hip ar	e 😘		
the <u>pelvis</u> a	ind <u>femur</u> .	Front view	MMG 2003	Side view
The moven	nents possil	ble at the hi	ip joint are:	
		&		
		&		
	Movement 1	Movement 2	Movement 3	Movement 4
Agonist				
Antagonist				

Examples from sport:

The Knee Joint Joint type:	•••••	Hamstrings—Quadriceps Femur (Thigh Bone)—Patella Ligament——Patella
The bones that	articulate at	Meniscus
the knee joint a and <u>tibia</u> .	re the <u>femur</u>	Knee
The movements j	possible at the &	knee joint are:
	Movement 1	Movement 2
Agonist		
Antagonist		
Examples from sp	port:	

The Ankle Joint				
Joint type:		11	1 (100)	
		Calf	Gastrocnemius —	
The bones that a		muscles	Achilles tendon	
tibia, fibula and t	<u>talus</u> .			
	Moveme		Movement 2	
Agonist				
Antagonist				
Examples from s	port:		•	