



## YEAR 11 Sport Science

### Autumn Term 1 and 2: R180 – Reducing the risk of sports injuries and dealing with common conditions

**Key Vocabulary for lessons – Extrinsic and Intrinsic factors of injury, Physiological benefits of warming up, Psychological benefits of warming up, Cool down, Acute soft tissue injury, fractures and concussion, chronic injury, safety checks and risk assessments, emergency action plan, responses and treatment for injuries, therapies, asthmas, diabetes, epilepsy, sudden cardiac arrest, hypothermia, heat exhaustion, dehydration**

<b>Ability</b>	Having the skill to do something
<b>Abrasion</b>	Surface damage to the skin; grazes
<b>Achilles tendon</b>	The largest tendon in the body; it stretches from the bones of the heel to the calf muscles
<b>Achilles tendonitis</b>	Inflammation of some part of the Achilles tendon
<b>Acronym</b>	A word composed of the first letters of the words in a phrase
<b>Acute injuries</b>	Injuries caused by impacts or collisions
<b>Aggression</b>	Intention to cause harm
<b>Alzheimer's disease</b>	Irreversible, progressive brain disorder that slowly destroys memory and thinking skills and, eventually, the ability to carry out everyday tasks
<b>Anabolic steroids</b>	Performance enhancing drugs that help performers increase muscle size and strength
<b>Anaerobic</b>	Without oxygen; oxygen is not used to produce energy during high-intensity, short-duration anaerobic exercise
<b>Analgesics</b>	Medication used to relieve pain
<b>Anterior cruciate ligament (ACL)</b>	Ligament that runs diagonally in the middle of the knee joining the femur to the tibia
<b>Adrenaline</b>	Hormone that prepares the body for exercise
<b>Anti-epileptic drugs (AEDs)</b>	Medicine taken to help control seizures
<b>Anxiety</b>	Negative emotional state due to nervousness
<b>Arousal</b>	Level of activation or excitement
<b>Asthma</b>	A condition in which the airways narrow and swell, which can make breathing difficult
<b>Bandaging</b>	Used to prevent swelling, reduce pain, provide support or decrease blood flow to an injured area
<b>Blister</b>	Bubble on the skin caused by friction
<b>Cast</b>	Hard fibreglass or plaster casing designed to prevent broken bones from moving
<b>Channelled aggression</b>	When feelings of aggression are diverted into positive, productive actions
<b>Chronic injuries</b>	Injuries caused by continuous stress
<b>Closed fracture</b>	A broken bone with no break in the skin
<b>Commotio cordis</b>	A sudden trauma, such as a blow to the chest directly over the heart at certain points in the heartbeat cycle, that can cause sudden cardiac arrest
<b>Concussion</b>	Head injury in which the brain is shaken inside the skull
<b>Confidence</b>	Belief in your own ability to master a situation

<b>Contact Sports</b>	Sports where physical contact between performers is an accepted part of play
<b>Contrast therapy</b>	Use of quickly changing temperatures from hot to cold and back again to treat injuries
<b>Contusion</b>	Bruise caused by blood leaking into the surrounding area
<b>Cool down</b>	Easy exercise done after a more intense activity to allow the body to gradually move to a resting condition
<b>Cryotherapy</b>	Use of cold temperatures to treat injuries
<b>Cut</b>	Skin wound where the tissues of the skin become separated
<b>Dehydration</b>	Harmful reduction in the amount of water in the body
<b>Delayed onset muscle soreness (DOMS)</b>	Muscle pain that starts a day or two after an exercise workout
<b>Dementia</b>	General term for loss of memory, language, problem-solving and other thinking abilities that are severe enough to interfere with daily life
<b>Diabetes</b>	Condition in which blood sugar levels are not regulated by the body effectively
<b>Diabetic ketoacidosis (DKA)</b>	A condition caused by excess ketones in the blood
<b>Direct aggression</b>	Involves physical contact with others
<b>Dislocation</b>	When a bone is dislodged from its position in a joint
<b>DRABC</b>	Acronym for danger, response, airway, breathing and circulation; these are the steps that should be followed when initially attending to a casualty
<b>Dynamic stretches</b>	Active stretching exercises
<b>Electrocardiogram (ECG)</b>	Technology used to detect the rhythm and electrical activity within the heart
<b>Electrolytes</b>	Minerals found in blood, urine and sweat that carry an electric charge when dissolved in water. They help with hydration, balance blood acidity and regulate nerve and muscle function
<b>Electrotherapy</b>	Use of electrical energy to treat injuries
<b>Emergency action plan (EAP)</b>	Written document identifying what action to take in the event of an emergency at a sporting event
<b>Epicondylitis</b>	Inflammation of an epicondyle of a bone
<b>Epilepsy</b>	Abnormal brain activity that causes recurring seizures
<b>Extrinsic Factors</b>	Where the factor or risk of injury comes from outside the body
<b>Fitness</b>	Set of qualities relating to a person's ability to perform physical activity
<b>Fatigue</b>	A feeling of overwhelming tiredness
<b>Flexibility</b>	The range of movement possible at a joint
<b>Fracture</b>	Partial or complete break in a bone
<b>Glucose</b>	Simple sugar found in blood used as an energy source
<b>Hard tissue injuries</b>	Injuries to part of the skeletal system, such as fractures or dislocations
<b>Hazard</b>	Something that can cause harm
<b>Heat exhaustion</b>	Fatigue and collapse resulting from prolonged exposure to excessive or unaccustomed heat
<b>Hydration</b>	Drinking the right amount of water before, during and after exercise

<b>Hydrotherapy</b>	Use of water to improve blood circulation, relieve pain and relax muscles
<b>Hyperglycaemia</b>	High blood sugar level
<b>Hypoglycaemia</b>	Low blood sugar level
<b>Hypothermia</b>	A dangerous drop in body temperature below 35°C
<b>Ibuprofen</b>	Non-steroidal anti-inflammatory medication used to ease pain and inflammation
<b>Imagery</b>	Creating an image of successful performance in the mind
<b>Immobilisation</b>	Stabilising and resting an injury by preventing unnecessary movement
<b>Inhaler</b>	Device that allows medicine to be breathed in
<b>Insulin</b>	A hormone that lowers blood glucose levels
<b>Insulin-dependent</b>	Another name for Type 1 diabetes
<b>Insulin-resistant</b>	Another name for Type 2 diabetes
<b>Intrinsic Factors</b>	Where the factor or risk of injury comes from within the body
<b>Ketogenic diet</b>	A diet high in fats and low in carbohydrates and proteins
<b>Ketones</b>	Chemicals produced by the liver during fat breakdown
<b>Kinesiology tape</b>	Stretchy tape applied strategically to provide support, lessen pain, reduce swelling and improve performance
<b>Laceration</b>	A torn or jagged wound caused by a sharp object
<b>Lactic acid</b>	Waste product of anaerobic exercise; it causes fatigue
<b>Lateral epicondylitis (tennis elbow)</b>	Inflammation of an epicondyle on the outer part of the elbow due to repetitive actions such as tennis strokes
<b>Ligaments</b>	Fibrous tissue that connects bone to bone and strengthens joints
<b>Massage</b>	Manipulating soft tissue to increase blood flow
<b>Medical</b>	A doctor's assessment of a performer's suitability for exercise.
<b>Maintenance stretches</b>	Stretches designed to just maintain flexibility
<b>Medial epicondylitis (golfer's elbow)</b>	Inflammation of an epicondyle on the inner part of the elbow due to repetitive actions such as golf strokes
<b>Mental rehearsal</b>	Going over a skill in the mind before performance
<b>Nebuliser</b>	Machine that allows medicine to be breathed in
<b>Neoprene</b>	Synthetic rubber used to make supports, mainly for joints
<b>Non-contact sports</b>	Sports where participants compete alternatively, or are physically separated or the rules detail no contact
<b>Nutrition</b>	The study of nutrients in food and how the body uses them
<b>Open fracture</b>	A broken bone that is exposed to the air through the skin
<b>Overuse injuries</b>	Chronic injuries caused by repetitive use
<b>Painkillers</b>	Medication used to relieve pain, for example paracetamol
<b>Patellar tendonitis</b>	Inflammation of the tendon that connects the kneecap (patella) to the shinbone (tibia)
<b>PRICE</b>	Acronym for protection, rest, ice, compression, elevation
<b>Proprioceptive neuromuscular facilitation (PNF)</b>	Advanced form of flexibility training, involving both the stretching and contracting of the muscles being targeted
<b>Psychological factors</b>	Mental factors that affect a performer

<b>Recovery position</b>	Position for an unconscious person that keeps their airway clear and open
<b>Retaliation</b>	The act of harming someone because they have harmed you
<b>Risk</b>	The likelihood of danger
<b>Risk assessment</b>	Careful examination of what, in relation to a sports activity, could cause harm to people
<b>Rotator cuff tendonitis</b>	Inflammation of the tendons that help to move the shoulder joint
<b>SALTAPS</b>	Acronym for see, ask, look, touch, active, passive, strength
<b>Screening</b>	A way of identifying those at risk of complications from exercise
<b>Seizures</b>	Bursts of electrical activity that temporarily affect how the brain works
<b>Selective attention</b>	Filtering out irrelevant information
<b>Shin splints</b>	Pain along the shinbone (tibia) that is common in long-distance runners and dancers
<b>Sling</b>	Support, usually of folded cloth, designed to immobilise and rest the arm
<b>Splint</b>	Plastic or fibreglass support for a limb injury
<b>Spotters</b>	Suitably sized and trained non-performers who are positioned around equipment, such as a trampoline or weights, to assist performers who may fall or be hurt by the equipment
<b>Sprains</b>	Injuries to ligaments
<b>Static stretches</b>	Stretches where the stretched position is held for many seconds in an attempt to improve flexibility
<b>Strains</b>	Injuries to muscles
<b>Stress</b>	The feelings we get when we find it difficult to cope with the demands placed on us
<b>Soft tissue injuries</b>	Injuries to muscles, tendons or ligaments
<b>Stress fractures</b>	Tiny cracks in a bone caused by repetitive force, often from overuse
<b>Sudden cardiac arrest (SCA)</b>	A condition in which the heart suddenly and unexpectedly stops beating
<b>Sudden trauma</b>	An impact or collision that causes an acute injury
<b>Support</b>	Methods used to protect sports injuries
<b>Technique</b>	Method used to perform a skill
<b>Tendonitis</b>	Inflammation of the tendons
<b>Training</b>	The process of bringing a person to a suitable level of proficiency
<b>Triggers</b>	Things that make epileptic seizures more likely
<b>Ultrasound</b>	Use of high-frequency sound waves to diagnose and treat injuries
<b>Veterans (Vets)</b>	Performers above a certain age that is specific to the sport
<b>Warm up</b>	Exercises to prepare the body for exercise so that the chances of injury or ill effects are reduced

## Homework

- Will be set every two weeks.
- Task set will be a range of questions on retrieval practice of prior knowledge and longer written questions focused on GCSE style questions.
- All tasks will be focused on reinforcing the learning to date in Key Stage 4.

## Additional opportunities

If you wish to further develop your knowledge for Sports Science, you can use the following links:

[CNAT Sport Science R180 Revision \(Summer 2024\) \(youtube.com\)](#)

[Cambridge Nationals Sports Science Exam Unit R180 Topic Area 1 Flashcards | Quizlet](#)

[R180: Reducing the risk of sports injuries and dealing with common medical conditions Sample Question Paper \(ocr.org.uk\)](#)

[Revision Notes 2024 CNAT Sport Science R180 \(theeverlearner.com\)](#)