

Cambridge **TECHNICALS LEVEL 3**

SPORT AND PHYSICAL ACTIVITY



Unit 17

Sports injuries and rehabilitation

T/507/4468

Guided learning hours: 60

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***changes indicated by black line**

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UNIT 17: Sports injuries and rehabilitation

T/507/4468

Guided learning hours: 60

Essential resources required for this unit: none

This unit is internally assessed and externally moderated by OCR.

UNIT AIM

If considering a future as a sports coach or leader, a fitness instructor or a leisure recreation assistant, you will need to know the different causes, types, signs and symptoms of sports injuries. You will also need to know the possible long-term effects of these injuries on the injured participant, both physical and psychological. This will allow you to support the injured participant appropriately, whether as part of the immediate response or a long-term rehabilitation programme, to avoid causing them further harm and speed up their safe return to participation. However, prevention is better than cure and so an understanding of risk factors and how to minimise risks will help maintain a safe environment, helping participants to stay injury free in the first place.

This unit will teach you how to recognise and treat common sports injuries both immediately and through long-term rehabilitation programmes, the possible psychological impacts of sports injuries and how to minimise the risk of sports injuries occurring in the first instance.

TEACHING CONTENT

The teaching content in every unit states what has to be taught to ensure that learners are able to access the highest grades.

Anything which follows an i.e. details what must be taught as part of that area of content. Anything which follows an e.g. is illustrative; it should be noted that where e.g. is used, learners must know and be able to apply relevant examples in their work, although these do not need to be the same ones specified in the unit content.

For internally assessed units you need to ensure that any assignments you create, or any modifications you make to an assignment, do not expect the learner to do more than they have been taught, but must enable them to access the full range of grades as described in the grading criteria.

Learning outcomes	Teaching content
The Learner will:	Learners must be taught:
1. Know common sports injuries and their effects	<p>1.1 The definitions of chronic and acute sports injury</p> <p>1.2 Common causes of chronic sports injuries, i.e.</p> <ul style="list-style-type: none"> • overuse • overtraining • poor technique • inappropriate kit/equipment <p>1.3 Common causes of acute sports injuries, i.e.</p> <ul style="list-style-type: none"> • collision • fall • overestimating ability <p>1.4 The signs and symptoms of common chronic sports injuries, i.e.</p> <ul style="list-style-type: none"> • tennis elbow • golfer's elbow • shin splints • stress fracture • tendonitis <p>1.5 The signs and symptoms of common acute sports injuries, i.e.</p> <ul style="list-style-type: none"> • sprains and strains • broken bones • dislocation • torn ligament <p>1.6 Possible psychological effects of suffering a sports injury, i.e.</p> <ul style="list-style-type: none"> • anger (e.g. if caused by another performer or poor coaching) • anxiety (e.g. worried about how long injury will be, whether full recovery possible) • depression (e.g. because inactive, unable to carry on as normal)

Learning outcomes	Teaching content
The Learner will:	Learners must be taught:
	<ul style="list-style-type: none"> • isolation (e.g. because not able to train, be with team mates, go to events) • frustration (e.g. during rehabilitation if progress/recovery is slow) • lack of confidence (e.g. not wanting to perform at full level when returning from injury, worried about injury recurring)
<p>2. Be able to minimise the risk of sports injuries</p>	<p>2.1 Extrinsic factors which can influence the risk of injury, i.e.</p> <ul style="list-style-type: none"> • type of activity • coaching/supervision • environmental factors • equipment • safety hazards <p>2.2 Intrinsic factors which can influence the risk of injury, i.e.</p> <ul style="list-style-type: none"> • physical preparation, i.e. <ul style="list-style-type: none"> ○ training ○ warm-up ○ cool-down ○ fitness levels ○ overuse ○ muscle imbalances • individual variables, i.e. <ul style="list-style-type: none"> ○ gender ○ age ○ flexibility ○ nutrition ○ sleep ○ previous/recurring injuries • psychological factors, i.e. <ul style="list-style-type: none"> ○ motivation ○ aggression ○ arousal/anxiety levels <p>2.3 Steps that can be taken to minimise the risk of sports injuries, i.e.</p> <ul style="list-style-type: none"> • risk assessment • use of correct equipment • wearing of correct kit • warm-up and cool-down activities, i.e. <ul style="list-style-type: none"> ○ physical benefits ○ psychological benefits ○ key components ○ specific needs (e.g. suitability for sport/physical activity being undertaken) • appropriate coaching techniques <p>2.4 Safety measures which are intrinsic to sports, i.e.</p> <ul style="list-style-type: none"> • rules • kit • equipment • technology

Learning outcomes	Teaching content
The Learner will:	Learners must be taught:
<p>3. Be able to respond to acute sports injuries when they occur</p>	<p>3.1 Appropriate courses of action immediately following an acute sports injury, i.e.</p> <ul style="list-style-type: none"> • on-field assessment (e.g. SALTAPS, RICE) • giving first aid • getting help • protecting others • reassuring the injured person <p>3.2 Emergency Action Plan (EAP), i.e.</p> <ul style="list-style-type: none"> • the importance of an EAP • key components of an EAP, i.e. <ul style="list-style-type: none"> ○ emergency telephone numbers ○ directions to nearest hospital ○ access points to pitch/field/court ○ evacuation procedures • key personnel and their roles and responsibilities (e.g. coaches, officials, volunteers, parents) • designated personnel and their roles and responsibilities (e.g. first aider, fire officer, health and safety officer)
<p>4. Know the role of different agencies in the treatment and rehabilitation of sports injuries</p>	<p>4.1 The different agencies and professionals that could be involved in the treatment of sports injuries (e.g. doctor, physiotherapist, sports therapist, alternative therapist)</p> <p>4.2 The way in which each of the identified agencies or professionals could support rehabilitation from sports injury, i.e.</p> <ul style="list-style-type: none"> • short-term injuries (e.g. concussion, abrasion) • medium-term injuries (e.g. hairline fracture, sprain) • long-term injuries (e.g. compound fracture, muscle tear) • ways of supporting rehabilitation (e.g. pain relief, massage, advice, rehabilitation exercises, etc.) <p>4.3 Under what circumstances an injured person might seek out external help (e.g. injury is very painful, is not healing as hoped, is restricting lifestyle, is affecting the sports person psychologically)</p>

Learning outcomes	Teaching content
The Learner will:	Learners must be taught:
<p>5. Be able to plan a rehabilitation programme for a specific sports injury</p>	<p>5.1 The different types of treatment that can be used to support rehabilitation from sports injury, i.e.</p> <ul style="list-style-type: none"> • RICE • hot/cold/contrast bathing • immobilization • anti-inflammatory drugs • exercise rehabilitation <p>5.2 The physiological response to each of the rehabilitation techniques identified</p> <p>5.3 The indications for and against each identified treatment for a range of common sports injuries</p> <p>5.4 Different grades of muscle injury, i.e.</p> <ul style="list-style-type: none"> • graded 0–4 based on MRI features • grades 1–4 include an additional suffix ‘a’, ‘b’ or ‘c’ <p>5.5 Different phases of treatment, i.e.</p> <ul style="list-style-type: none"> • acute • sub-acute • remodelling • concentric/eccentric strengthening • functional • return to participation, moving from one phase of treatment to the next <p>5.6 Exercises that can be used as part of a rehabilitation programme, i.e.</p> <ul style="list-style-type: none"> • low grade exercises • intermediate grade exercises • late grade exercises <p>5.7 ‘Client-based’ factors when planning a sports injury rehabilitation Programme, i.e.</p> <ul style="list-style-type: none"> • firm diagnosis of injury • training aims • current ability level • timescales/available time <p>5.8 Assessing the needs of a client, i.e.</p> <ul style="list-style-type: none"> • diagnosis of the client (e.g. by seeking medical evidence, talking with the client, talking with an external agency) • discussion and agreement of training aims with a client • baseline assessment to inform planning, including establishing a client’s current ability level • discussion of exercise likes and dislikes with a client to ensure the programme meets their needs • consultation with external agencies as appropriate

Learning outcomes	Teaching content
	<p>5.9 Plan a client's rehabilitation programme, i.e.</p> <ul style="list-style-type: none"> • types and phases of treatment • related exercises • planning for move from one phase of treatment to another • using SMART, i.e. <ul style="list-style-type: none"> ○ Specific (e.g. addresses client's needs) ○ Measurable (e.g. progress can be determined and monitored) ○ Achievable (e.g. takes account of 'client-based' factors) ○ Realistic (e.g. plan considers how and when progress can be expected) ○ Time-bound (e.g. has a defined time-scale) <p>5.10 Consideration of possible adaptations to programme if it does not work as planned</p>

GRADING CRITERIA

LO	Pass	Merit	Distinction
	The assessment criteria are the Pass requirements for this unit.	To achieve a Merit the evidence must show that, in addition to the Pass criteria, the candidate is able to:	To achieve a Distinction the evidence must show that, in addition to the pass and merit criteria, the candidate is able to:
1. Know common sports injuries and their effects	P1*: Describe the signs and symptoms of common chronic and acute sports injuries	M1: Analyse the link between the way in which a sports injury occurs and the physiological and psychological affect it may have on the sports person	
	*P2: Describe possible psychological effects of suffering a sports injury		
2. Be able to minimise the risk of sports injuries	*P3: Explain intrinsic and extrinsic factors which influence the risk of sports injuries	M2: Explain how appropriate warm-ups and cool-downs can reduce the risk of sports injuries	D1: Analyse how measures to optimise player safety are recognised and legislated for in a specific sport
	P4*: Take steps to minimise the risk of sports injuries occurring during a sports activity		
3. Be able to respond to acute sports injuries when they occur	*P5: Respond appropriately to acute sports injuries		
	P6: Create an Emergency Action Plan for a specified organisation		
4. Know the role of different agencies in the treatment and rehabilitation of sports injuries	*P7: Describe the roles of different agencies and professionals involved in the rehabilitation of a sports injury	M3: Explain how different agencies and professionals may be involved in the rehabilitation of different types of short, medium and long-term sports injuries	
5. Be able to plan a rehabilitation programme for a specific sports injury	*P8: Describe the different types of treatment that can be used to support the rehabilitation of sports injuries	M4: Justify the types and phases of treatment and related exercises within the rehabilitation programme planned with clear reference to SMART principles	D2: Anticipate and explain possible adaptations that may be required to the planned rehabilitation programme if progress is not as expected
	*P9: Describe the different phases of treatment of common sports injuries		

LO	Pass	Merit	Distinction
	*P10: Plan a rehabilitation programme which is designed to support a client in their recovery from a specified sports injury		

SYNOPTIC LEARNING AND ASSESSMENT

It will be possible for learners to make connections between other units over and above the unit containing the key tasks for synoptic assessment, please see section 6 of the centre handbook for more details. We have indicated in this unit where these links are with an asterisk and provided more detail in the assessment guidance section below.

ASSESSMENT GUIDANCE

LO1 Know common sports injuries and their effects

For P1 learners must describe the signs and symptoms for all of the chronic and acute injuries and for P2 all of the possible psychological effects listed in the Teaching Content. For M1, learners must analyse the link between the way an injury occurs and the possible physiological and psychological effects for at least one chronic injury and one acute injury. For this LO, learners will benefit from drawing on learning from mandatory Unit 1, Body systems and the effects of physical activity – LO1 Understand the skeletal system in relation to exercise and physical activity and LO2 Understand the muscular system in relation to exercise and physical activity. Learners may also draw on learning from Unit 19, Sport and exercise psychology.

LO2 Be able to minimise the risk of sports injuries

For P3 learners must explain how the intrinsic and extrinsic factors listed in the Teaching Content influence the risk of sports injuries. For M2 learners need to explain how a warm up and cool down can reduce the risk of injury, basing their evidence on specific sporting examples. For P4, learners must follow the appropriate steps to minimise the risk of injury during a sports activity. This can be delivered and assessed during activities carried out in other units, including Unit 2, Sports coaching and activity leadership; Unit 6, Group exercise to music and Unit 18, Practical skills in sport and physical activities. For this LO, learners will benefit from drawing on learning from mandatory Unit 2, Sports coaching and activity leadership – LO4 Be able to plan sports and activity sessions; LO5 Be able to prepare sports and activity environments and LO6 Be able to deliver sports and activity sessions and mandatory Unit 4 Working safely in sport, exercise, health and leisure – LO2 Understand health and safety requirements in sport, exercise, health and leisure and LO3 Understand how to minimise risk in sport, exercise, health and leisure.

D1 requires learners to analyse measures to optimise player safety including how they are recognised (i.e. how is the safety issue spotted/highlighted) and then what action is taken to address the issues, with reference to the Teaching Content in 2.4 (for example, an incident leading to a change in rules/kit/equipment or the implementation of some form of technology). Learners should analyse a minimum of two different examples from a specific sport and consider how effective any current measures taken are; how successfully they are implemented/legislated and by who, and at what level of performance they are effective (e.g. do they really only apply to professional level in practice for whatever reason?).

LO3 Be able to respond to acute sports injuries when they occur

For P5 learners must demonstrate their ability to respond appropriately to all of the acute sports injuries outlined in the Teaching Content for LO1, this activity can be simulated. Learners may benefit from undertaking either an Emergency First Aid at Work or a First Aid qualification but this is not required. Evidence could be in the form of video/photo evidence or a comprehensive witness statement. For P6, the Emergency Action Plan should be the learners' own work and not a duplicate of an EAP the sports organisation already has in place. For this LO, learners will benefit from drawing on learning from mandatory Unit 4, Working safely in sport, exercise, health and leisure – LO1 Understand emergency procedures in sport, exercise, health and leisure and LO4 Know first aid requirements for sport, exercise, health and leisure.

LO4 Know the role of different agencies in the treatment and rehabilitation of sports injuries

For P7 learners should describe the roles of at least three different agencies and professionals involved in the treatment and rehabilitation of sports injuries. For M3, learners must explain how different agencies may be involved in the rehabilitation of at least one, short, medium and long-term sports injury.

LO5: Be able to plan a rehabilitation programme for a specific sports injury

For P8 and P9 learners must describe each of the different types and phases of treatment outlined in the Teaching Content.

For P10 learners would benefit from basing their rehabilitation programme on someone who has actually received a sports injury however if this is not possible, the centre may provide a case study for the learners to use. For M4 and D2, learners must base their evidence on the rehabilitation programme and person used in P10, ensuring for M4 that the SMART principle is used to justify the rehabilitation programme. For D2 students should think about and explain what may need to be adapted, depending on how their client responds to the programme. For this LO, learners will benefit from drawing on learning from mandatory Unit 1, Body systems and the effects of physical activity – LO1 Understand the skeletal system in relation to exercise and physical activity and LO2 Understand the muscular system in relation to exercise and physical activity. Learners may also draw on learning from Unit 7, Improving fitness for sport and physical activity; Unit 13, Health and fitness testing for sport and exercise and Unit 19, Sport and exercise psychology.

MEANINGFUL EMPLOYER INVOLVEMENT - a requirement for the Foundation Diploma and Diploma (Tech Level) qualifications

The 'Diploma' qualifications have been designed to be recognised as Tech Levels in performance tables in England. It is a requirement of these qualifications for centres to secure employer involvement through delivery and/or assessment of these qualifications for every learner.

The minimum amount of employer involvement must relate to at least one of the mandatory units (this unit is mandatory in the Sports Coaching specialist pathway in the Diploma), although we encourage you to find ways to engage with employers for other units as well.

Eligible activities and suggestions/ideas that may help you in securing meaningful employer involvement for this unit are given in the table below.

Please refer to the *Qualification Handbook* for further information including a list of activities that are not considered to meet this requirement.

Meaningful employer involvement	Suggestion/ideas for centres when delivering this unit
1. Learners undertake structured work experience or work placements that develop skills and knowledge relevant to the qualification.	Learners could work in a sports injury clinic, physiotherapy centre, sports massage clinic, chiropractic clinic, with an osteopath or similar in order to experience 'real life' sports injuries and rehabilitation programmes.
2. Learners undertake project(s), exercises(s) and/or assessments/examination(s) set with input from industry practitioner(s).	Learners could investigate the kit and equipment that are designed specifically for sports safety. Learners could visit workplaces involved in the design or manufacture or could study examples brought in by industry practitioners.
3. Learners take one or more units delivered or co-delivered by an industry practitioner(s). This could take the form of master classes or guest lectures.	Guest speakers from sports injury, rehabilitation, medical, professional sports world, design/manufacture of safety equipment, first aid, risk assessment, etc. could be invited in to talk to learners.
4. Industry practitioners operating as 'expert witnesses' that contribute to the assessment of a learner's work or practice, operating within a specified assessment framework. This may be a specific project(s), exercise(s) or examination(s), or all assessments for a qualification.	Industry experts could review learners' rehabilitation plans and give their feedback.

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