



National Unit Specification: general information

UNIT Sports Injuries: Identification, Prevention and Treatment: An Introduction (SCQF level 5)

CODE F40J 11

SUMMARY

This Unit is an optional Unit of the NC in Sport and Fitness (SCQF level 5) award, and can also be taken as a free-standing Unit. The Unit is suitable for candidates with some knowledge of anatomy and physiology *and* exercise and fitness training *or* sports coaching.

In this Unit, candidates will gain basic underpinning knowledge of the types of common sports injuries and their principal signs and symptoms, the potential causes of sports injuries, how they may be prevented and how they may be treated.

It should be noted that successful completion of this Unit does not qualify candidates to diagnose sports injuries nor practice treatment techniques on others.

OUTCOMES

- 1 Identify common sports injuries and their principal signs and symptoms.
- 2 Describe how common sports injuries may occur.
- 3 Explain how common sports injuries may be prevented.
- 4 Describe the treatment and personnel required for common sports injuries.

Administrative Information

Superclass: PB

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RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates would normally be expected to have attained the following, or equivalent:

F40E 11 *Human Anatomy, Physiology & Physical Activity: Intermediate 2*

and at least one of the following:

F40B 11 *Contemporary Exercise & Fitness Training Methods: An Introduction: Intermediate 2*

F40D 11 *Developing Leadership within Physical Activities: Intermediate 2*

CREDIT VALUE

1 credit at Intermediate 2 (6 SCQF credit points at SCQF level 5*).

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

CORE SKILLS

There is no automatic certification of Core Skills components in this Unit.

Opportunities for developing aspects of Core Skills are highlighted in Learning and Teaching Approaches for this Unit.

National Unit Specification: statement of standards

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Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

OUTCOME 1

Identify common sports injuries and their principal signs and symptoms.

Performance Criteria

- (a) Outline the difference between principal signs and symptoms of injury.
- (b) Identify acute sports injuries by type and principal signs and symptoms.
- (c) Identify chronic sports injuries by type and principal signs and symptoms.
- (d) Categorise mild, moderate and severe soft-tissue injuries and their principal signs and symptoms.

OUTCOME 2

Describe how common sports injuries may occur.

Performance Criteria

- (a) Accurately describe internal factors which may lead to injury in a sporting situation.
- (b) Accurately describe external factors which may lead to injury in a sporting situation.

OUTCOME 3

Explain how common sports injuries may be prevented for a given situation.

Performance Criteria

- (a) Perform an accurate risk assessment for a sporting activity.
- (b) Describe how an individual may prevent personal injury for that sporting activity.
- (c) Explain how the rules/protocols of that sporting activity help to prevent an individual sustaining injury.
- (d) Identify any action/behaviour that resulted or may have resulted in an injury during that sporting activity and describe why an injury may have occurred.

OUTCOME 4

Describe the treatment and personnel required for common sports injuries.

Performance Criteria

- (a) Describe the initial treatment of acute sports injury conditions.
- (b) Describe the treatment of chronic sports injury conditions.

National Unit Specification: statement of standards (cont)

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- (c) Identify personnel who may be involved with, and describe their role in, the treatment of a sports injury.
- (d) Identify personnel to whom individuals may contact following a sporting injury and describe the advantages and disadvantages of taking this course of action.

EVIDENCE REQUIREMENTS FOR THIS UNIT

Evidence that covers all the Outcomes and Performance Criteria is required.

- ◆ Outcome 1: this will take the form of written and/or oral recorded evidence obtained under controlled, supervised conditions. The assessment will be closed-book, restricted response questions.
- ◆ Outcome 2: this will take the form of written and/or oral recorded evidence obtained under controlled, supervised conditions. The closed-book assessment may be either:
 - restricted response questions *or*
 - case studies relating to two specific sporting activities
- ◆ Outcome 3: For an identified sporting activity, candidates will be required to:
 - undertake and record a risk assessment of the facility and activity
 - observe the sporting/physical activity taking place, followed by extended response questions requiring the candidate to describe the actions which the player/competitor should take in order to prevent injury to him/herself, the rules/protocols of the sporting activity which aid injury prevention, any actions/behaviours that did or may have caused an accident and how they could be prevented
- ◆ Outcome 4: will take the form of a project or assignment, where the candidate has been involved in research to gain the underpinning knowledge required to achieve these criteria. The project/assignment can be focused via a case study scenario.

An Assessment Support Pack has been produced for this Unit. This pack includes a sample of activity plans, a template for the plan, candidate review sheets and an observation checklist. Centres wishing to produce their own instruments of assessment should refer to the Assessment Support Pack to ensure that they are of a comparable standard.

National Unit Specification: support notes

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This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

The purpose of this Unit is to provide the candidate with basic underpinning knowledge to be able to identify common sports injuries and their potential causes, suggest preventative measures to reduce the risk of injury and understand the treatment required for different types of injury. It should be noted that the Unit does not qualify candidates to practice treatment techniques on others.

The Unit is designed to increase candidates' awareness of safe practices so that they may minimize the risk of injury to themselves when participating in sporting activities. It forms the basis of essential knowledge to be carried forward to aid the prevention of sports injury to others, should they consider a career in the health and fitness industry.

Although the content of this Unit is primarily theoretical information, it is important that candidates can transfer this to a variety of sporting situations. It is highly recommended therefore, that they have some personal experience of participating in sporting activities and the teaching and learning approaches adopted should use a wide range of practical activities in order to aid and develop the skill of transferability.

Outcome 1: candidates should be introduced to the concept of acute and chronic injuries and their principal signs and symptoms. Candidates should be made aware of the distinction between a sign and a symptom, however, this should be at a basic level as symptoms may vary between individuals — the emphasis is on principal signs or symptoms, ie classic or highly indicative of that condition. Signs may include bleeding, swelling, discolouration, redness, heat, bone deformity, loss of movement. Symptoms may include pain, nausea, altered sensation, fatigue. There will be considerable replication of signs and symptoms across injuries, however, candidates should be prevented from thinking all signs and symptoms occur in all situations and this should be reflected in the assessment.

Acute injuries: bone fractures, joint dislocation and sub-luxation, meniscus tear, ligament sprain, tendon strain, muscle tear, contusion (bruise), cuts.

Chronic injuries: shin splints, tendonitis, bursitis, blisters.

Mild soft tissue injury: grade 1 strain or sprain — few fibres torn.

Moderate soft tissue injury: grade 2 strain or sprain — up to 49% fibres torn.

Severe soft tissue injury: grade 3 strain or sprain — 50%+ fibres torn.

Outcome 2: candidates should be introduced to the concept of internal and external factors and this can be contextualised by candidates being set tasks to be able to identify & predict these in a variety of different sporting environments and across a number of activities.

Internal: Biomechanical imbalance, previous injury, lack of fitness and flexibility, size (height, weight), incorrect technique, psychological state (from self).

National Unit Specification: support notes (cont)

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External: Training errors (changes in FITT, fatigue/recovery, technique), surfaces (hard, soft, uneven), shoes and clothing (inappropriate, worn out/orn), equipment, environment (heating, lighting, size, space, acoustics, Health & Safety), psychological state (from others), nutrition

Outcome 3: offers the opportunity to be combined with assessments for practical performance Units such as Leading Physical Activities/Plan and Prepare a Series of Coaching Sessions. Candidates should be introduced to the concept of risk assessments (environment and activity) in order to minimise potential injuries and investigate a variety of scenarios to assimilate these ideas. The need for rules/protocols in sports activities should be discussed in the context of preventing injury. The role of warm-up and down as a preventative measure, and an individual's responsibility to minimise their potential for injury by wearing appropriate clothing/footwear and using the correct equipment should also be highlighted.

Outcome 4: candidates should be introduced to the treatment of common sports injuries. The type of treatment and by whom it might be administered will depend on the type and severity of injury.

Personnel: self, coach, first aider, doctor (G.P, Accident & Emergency), Consultant, Surgeon, Physiotherapist, Sports Chiropractor, Osteopath, Sport & Remedial Massage Practitioner.

Advantages of non-NHS services/personnel: seen quickly, may have more specialist knowledge than some NHS personnel.

Disadvantages of non-NHS services/personnel: cost, individual's responsibility to ensure personnel are fully qualified and insured to administer treatment.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

It is suggested that a very visual approach is used, discussion is encouraged and individual and/or group problem-solving practical activities reinforce the theoretical information being assimilated.

Common sports injuries should be introduced through pictures, photographs and video clips. Live and videoed events could be used as well as discussion relating to recent or high profile sports injuries reported in the press. The internet is a good source of information. In addition, candidates should collect recent press reports on athletes' injuries. Candidates can gain much information from visiting sporting venues and considering the environment and the proposed activities as potential factors for injuries. Similarly, watching video clips of games/matches/competitions/sporting activities allows candidates to assimilate knowledge in context. Ensuring a wide variety of examples allows them to develop appropriate transferability of skill/knowledge.

Following the introduction of common sports injuries in Outcome 1, candidates should be introduced to their treatment (Outcome 4), ideally presented through flow charts. This will be greatly aided by presentations from experienced personnel, eg Sports Medicine Doctors, Physiotherapists, Sports Chiropractors, Osteopaths and Sport & Remedial Massage Practitioners describing the injuries they see and the treatment given. Visits to multi-disciplinary clinics/physiotherapy Units would also be advantageous.

National Unit Specification: support notes (cont)

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Candidates should be made aware of those medical professionals who may deal with their injury under the NHS, and also those who work out with the NHS whom may also deal with sports injuries. The advantages and disadvantages of accessing the latter group should be discussed. Candidates should also be encouraged to research information individually and/or in small groups and this would be most useful if based on their own locality. Background information can be accessed on the web.

Given the close association this Unit has with other Units (listed in the '*recommended entry*' section of this Unit) of the NQGA Sport & Fitness award and the recommended prior learning required, it is therefore advised that this Unit be delivered after delivery of some or all of the afore-mentioned Units.

OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

Practical activities developing *Problem Solving* skills and *Working with Others* can be devised in the teaching of Outcomes 2 and 3. The research and compilation of the project/assignment for Outcome 4 may allow for the development of *Communication* and *IT* skills. There is no perceived opportunity for the development of *Core Skill Numeracy* in this Unit.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by information and communications technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

Outcome 1: Identify common sports injuries and their principal signs and symptoms

Assessment should be written or oral closed-book restricted response questions, and should take approximately 30 minutes.

PC (a): should be a simple statement of the difference between principal signs and symptoms, with an example of each.

PC (b)–(d): Ideally questions would be presented with photographs/diagrams indicating injury, although these may be alternated with those posed in prose or in tabular form. At least one question should be asked in each category of acute injury (eg bone fractures, joint dislocation and sub-luxation, meniscus tear, ligament sprain, tendon strain, muscle tear, contusion (bruise), cuts), one question in each category of chronic injuries (eg shin splints, tendonitis, bursitis, blisters), and one question for each soft tissue injury (eg mild, moderate and severe). Questions would allow the candidate to *identify* the injury, signs and symptoms. Reassessments should include different examples where possible.

National Unit Specification: support notes (cont)

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Outcome 2: Describe how common sports injuries may occur.

Assessment should be written or oral closed-book, and could either be restricted response questions, or posed as case studies:

- ◆ restricted response questions which should take approximately 45 minutes.
- ◆ candidates should be asked to describe a minimum of five intrinsic (eg Biomechanical imbalance, previous injury, lack of fitness & flexibility, size (height, weight), incorrect technique, psychological state (from self) and five extrinsic (eg Training errors (changes in FITT, fatigue/recovery, technique), surfaces (hard, soft, uneven), shoes & clothing (inappropriate, worn out/torn), equipment, environment (heating, lighting, size, space, acoustics, H&S), psychological state (from others), nutrition) factors that may lead to sports injury.

or

- ◆ case studies relating to two specific sporting activities, and should take approximately 45 minutes.
- ◆ candidates could be given two case studies detailing sporting events where injury occurred to participants. The case study could document a variety of accidents or potential accidents which may have occurred due to intrinsic or extrinsic factors. Each case study would depict a different environment and activity and the two together would cover a minimum of five internal and five external factors (from same list as restricted response questions above), that led or may have led to injury.

Reassessments should include different questions/case studies. Alternatively, the first assessment could be case studies and the second restricted response or vice versa.

Outcome 3: Explain how common sports injuries may be prevented for a given situation.

This Outcome offers the possibility of an integrated approach with practical Units such as Leading Physical Activities.

Candidates should observe activities and identify potential hazards/causes of injury (as introduced in Outcome 2) in preparation for the assessment.

Assessment should be based on a specific live sporting activity that candidates can observe. This may be an indoor or outdoor, properly conducted and supervised, activity (eg football/rugby match, basketball game, aerobics class, etc). It is important that the candidate has knowledge of the activity and its rules/protocols to be used for the assessment.

PC (a) In advance, candidates should undertake a risk assessment of the environment and activity, this may be conducted individually or as a small group (no more than four). If the latter, an assessor or witness testimony should be provided to verify that all members of the group participated in conducting the risk assessment. The risk assessment should cover *potential hazards* of the facility and the activity — the criteria will depend upon whether it is an inside or outside event but may cover: heating/temperature, lighting, size, space (spectators/participants), acoustics, general H&S (emergency procedures), surfaces to be used (hard, soft, uneven), equipment to be provided (quality, quantity), equipment/clothing/shoes as the responsibility of the participant (quality), equality of participant characteristics (eg all intermediate level aerobics/all under 16 football players).

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PC (b)–(d) The candidate should observe the sporting activity and make appropriate notes to use in order to answer the extended response questions. Extended response questions should be posed to allow candidates to indicate their understanding of how an individual participant of that sporting activity may prevent personal injury during that activity and how the rules/protocols of the activity aid injury prevention. One question should focus on the requirements of an individual participant in minimising personal injury. The candidate should describe a minimum of four of the following: warm up, cool down, a balanced training/recovery programme in preparation for activity, adequate nutrition and hydration, positive mental state. A further question should focus on the rules/protocols of the activity which operate to prevent injury occurring (eg no tackling from behind (football), adequate space between participants (aerobics), mandatory equipment/clothing, etc. As activities vary in the number of rules/protocols each has, the assessor must use professional judgement to indicate whether a candidate has adequately answered this question. The final question is posed to help candidates consider how any occurring/potentially occurring injury could/may have been prevented — candidates should record any injuries/near misses (dangerous tackles — not seen by referee, participants working too closely together, slippery floor because of wet weather, etc.) and describe the measures that could have been taken to ensure that injury/potential injury did not occur. Again, the professional judgement of the assessor must be applied in adequately marking this question.

In exceptional situations, it may be possible for candidates to undertake this assessment using a prepared written scenario and observing a videoed sporting activity.

Outcome 4: Describe the treatment for common sports injuries

This Outcome should take the form of a project or Assignment, where the candidate has been involved in research to gain the underpinning knowledge required to achieve this criteria. The project/assignment can be focused via a case study scenario and the candidate response should be no less than 750 words.

The candidate should describe appropriate first aid treatment for acute common sports injuries, who might administer these (self, coach, first aider, A&E staff) and indicate how this may change depending on situation/condition. The candidate should also state the management process of acute common sports injuries following first aid treatment (eg surgery, immobilisation, possible electrotherapy, joint mobilisations, soft tissue therapy, muscle strengthening and proprioceptive training, functional training) as appropriate to injury. The candidate would also be able to describe the management of overuse injuries (avoidance of aggravating activities whilst still maintaining fitness, ice, possibly electrotherapy, soft tissue therapy).

The candidate would be expected to research the roles of personnel involved in the management of common sports injuries following the ‘first aid’ stage and describe the role of each (eg when an injured individual might see a particular person and why. The personnel should include consultant, surgeon, physiotherapist, sports chiropractor, osteopath, sports massage therapist. In addition, the candidate should research how and when these professionals can be ‘accessed’ through the NHS, and if not, how an individual obtains their services. The candidate’s research of such facilities/personnel should be focused on their own locality.

National Unit Specification: support notes (cont)

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CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).