Unit 25: Sport Injuries Management

Delivery guidance

Approaching the unit

This unit gives learner an opportunity to understand different sports injuries and their symptoms, in order to effectively administer treatment and develop a functional rehabilitation programme. It also allows learners to explore injury risk reduction through effective preventative measures.

Learners can review and discuss experiences of injury, treatment and rehabilitation. This review and discussion process should be engaging with the use of specific and informative examples and may include, for example, learners' own experience, case studies and scenarios, and information gained from websites such as video-sharing websites, television and news articles. A variety of visual aids including posters, x-rays and anatomical models may also be useful, as well as taking opportunities to deliver some aspects practically. Any genuine medical examples mustn't reveal personal information in order to maintain confidentiality.

The treatment of injury must be practically based, allowing plenty of opportunities for learners to explore confident and effective application of all treatment methods in a range of situations. For rehabilitation, there is no practical requirement, but delivery could be practically based to engage learners and reinforce learning.

Delivering the learning aims

Learning aim A focuses on types and causes of common sports injuries and their associated physiological and psychological responses. Injuries should be discussed with regard to aetiology, mechanisms of injury, and signs and symptoms. This can be achieved via a combination of formal lectures and learner-centred learning (for example individual or group research using the internet and textbooks). Learning can be reinforced by watching video recordings or clips on video- sharing websites (you can select from the wide range available), with small-group discussion and completion of worksheets focusing on an injury overview, aetiology, mechanism of injury, and signs and symptoms.

Physiological and psychological responses to injury can be delivered via a combination of learner-directed research, discussion of learner experiences, use of video clips and guest lectures by semi/elite/pro athletes who have sustained injuries or sports therapists or physiotherapists. Guest lecturers should give first-hand descriptions of how they have coped, the help they received and allow question and answer discussion. Tutor-led delivery may be used to further support theoretical understanding. Group work should be encouraged using mini presentations to encourage peer learning and personal knowledge checks.

For **learning aim B,** intrinsic and extrinsic injury risk factors could be explored via a learner-centred research approach. Research may be carried out using the internet, books, video clips, observation of sporting games, and class visits to sports events and environments. Group and individual tasks could be set and information pooled within the group to encourage peer learning and consolidate learner understanding. An example of a group task could be the identification of all intrinsic and extrinsic risk factors, and appropriate preventative measures. Specific sporting examples could then be used by learners to discuss specific intrinsic and extrinsic risk factors and explore preventative measures.

Scenarios should be provided for learners to explore the application of injury prevention measures. Mini presentations can be used to encourage peer learning and personal knowledge checks.

Learners could also complete risk assessments, emergency action plans and/or other safety checks to consolidate their understanding of steps that can be taken to minimise risk.

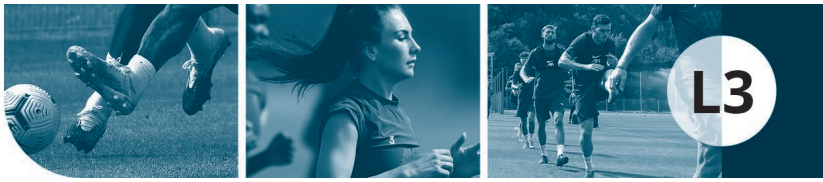
Guest lecturers with responsibility for sports injury management should be encouraged, such as sports and rehabilitation therapists, physiotherapists, sports coaches, sports management staff, and health and safety officers. Realistic examples are always good ways to promote learner engagement.

For **learning aim C**, learners should, where possible, be engaged in practical activities during the delivery of common treatment methods. Live demonstration of common treatment methods is effective initial delivery for this. This could be recorded and played for learners, to be used as a visual reference when practising their skills. You might also consider engaging the support of a qualified first aider. Learners should explore application of their practical skills via role play and/or a range of scenarios to allow the development of confident and effective application.

Learners could explore theoretical aspects of rehabilitation via formal delivery, group work and visual application of theory. Methods of rehabilitation and progression should be delivered practically, allowing learners to explore the application of theory to practice. For example, rehabilitation exercises for muscular conditioning and neuromuscular control can be delivered to allow learners to actually do the exercises.

On-the-spot quizzes during practical activities and oral questioning should be encouraged to help learners apply the information they have learned to the practical exercise.

Guest lecturers from the industry, such as sports and rehabilitation therapists and physiotherapists, could be used to further explore real-life examples of rehabilitation programmes. Discussion should include the appropriateness of the programme to the individual, possible adaptations and any recommendations or considerations the learner should contemplate. Client confidentiality should be maintained at all times.



Assessment model

Learning aim	Key content areas	Recommended assessment approach
A Explore different types and causes of common sporting injuries and how they affect sports performers	**A1** Types of sports injuries **A2** Mechanisms of sports injuries **A3** Physiological responses to injury **A4** Psychological responses to injury	A report detailing the different types of sporting injuries that affect sports performers and the causes of the injuries.
B Explore risk factors for the management and prevention of common sporting injuries	**B1** Extrinsic risk factors **B2** Intrinsic risk factors **B3** Preventative measures	A report detailing the treatment and management of sporting injuries.
C Develop treatment and rehabilitation programmes for common sporting injuries	**C1** Treatments and interventions **C2** Planning programmes **C3** Rehabilitation programmes	

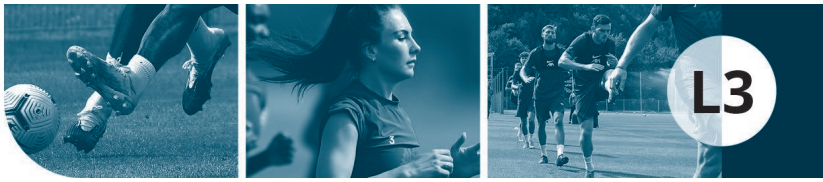
Assessment guidance

This unit is internally assessed. There is a maximum number of two summative assignments for this unit. Tutors should refer to the assessment guidance in the specification for specific detail, particularly in relation to the requirements for Pass, Merit and Distinction grades.

It is suggested that Learning aim A is assessed via a report exploring types of common sports injury and their causes. Learners should base their response on two different sports within which common injuries may occur, including the grades and classifications of injuries where relevant and any effects on surrounding body tissue. Learners will need to include details of the body's responses to the identified different sporting injuries over varied timeframes and how the healing process and pain can affect sports participants' responses to injury. Learners should also show an understanding of the impact of sports injuries psychologically as well as physiologically, as well as the link between the cause and type of injury and its possible psychological effects.

Learning aims B and C could also be assessed using a report. Learners will investigate internal and external risk factors and preventative measures that are, or could be, used to reduce these identified risks in both individual and team sports. Key features of risk assessment, injury prevention strategies and emergency action planning may support their understanding of this topic. Learners will plan safe and appropriate treatment rehabilitation programmes for two specific sporting injuries. These may be based on a professional sports performer with a well-publicised injury and/or another diagnosed sports injury (for example of a peer, teammate or family member). It would be advisable for learners to ensure their selected injuries give sufficient scope for treatment (for example a bruise gives limited opportunity for the development of a detailed rehabilitation programme, compared to a ruptured ligament or a broken bone). And programmes should include potential treatments and rehabilitation techniques that are appropriate at acute through to functional stages.

When presenting the report or presentation, learners should be encouraged to use headings, sub-headings and annotations such as pictures and diagrams to support explanations. Refer to the assessment guidance in the unit specification for specific detail.



Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

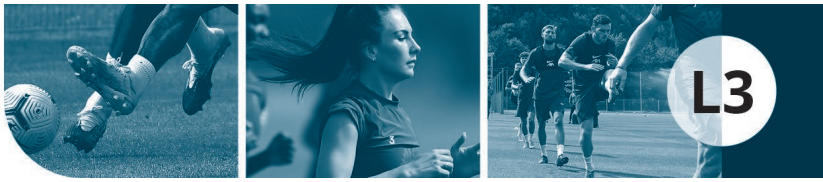
Introduction

Introduce the unit to your learners by designing a quiz on sports injuries that incorporates the use of injury clips (video-sharing website) or photos. Photos could include a selection of injuries, while video clips could be of an athlete sustaining an injury, accompanied with simple question and answers. This will enable you to assess previous learning and is a fun way to engage learners.

Outline to learners that the unit explores common sports injuries and through using sporting footage they will explore aetiology, mechanisms of injury, signs and symptoms, and their associated physiological and psychological responses to injury. This unit will also give learners a good understanding of how to identify injury risk factors and introduce preventative measures. Explain that learners will be equipped with the practical skills to apply common treatment methods to a range of sporting situations, and will also explore rehabilitation methods and programmes.

Learning aim A: Explore different types and causes of common sporting injuries and how they affect sports performers

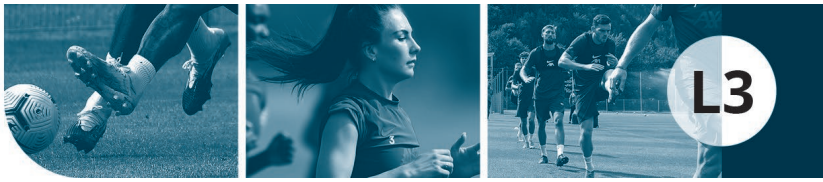
- Introduce the topic and content to your learners with regard to the types and causes of common sport injuries. Learners could then take part in a discussion regarding their own experiences of sports injuries and/or famous sports injuries suffered by professional sportspeople.
- Formal delivery on types of injury: Provide an overview of sport injuries and introduce all categories as specified in the unit content. Delivery should be highly visual, using real-life examples, video clips and photographs. Use discussion to engage learners and explore possible cause/s, signs and symptoms of a range of common sports injuries.
- Formal delivery on mechanisms of sport injuries: Provide an overview of the mechanisms of sports injuries, as specified in the unit content. Learners could (individually, in pairs or small groups) match words to their definitions (especially for less well-known terms such as 'microtrauma' or 'insidious') this could be done as a desktop activity or practically, as a relay race.
- Learner-led research using the internet and textbooks: For each type of injury, learners should be given a worksheet with columns headed 'aetiology,' 'mechanisms,' and 'signs and symptoms.' In small groups, get learners to research each injury and complete the worksheet.
- Pairs' mini presentation: pairs to be allocated an injury (so that each pair has a different injury, to avoid repetition) about which they must devise and deliver a presentation to the rest of the group. Presentations should make reference to prior learning concerning: type of injury, possible cause/s, likely location/s, mechanism/s, signs and symptoms etc.
- Introduce the topic and content of physiological and psychological response to injury.
- Formal delivery of physiological responses included in the unit content, that haven't already been covered in previous activities (e.g. signs and symptoms may already have been looked at; primary injury, secondary metabolic injury, Lewis's hunting response etc. may not have been).



- Formal delivery of injury time factors as stipulated in the unit content.
- Pairs' mini presentations split the group into the pairs they worked in for their mini presentations about a specific sports injury. For the same injury, ask each pair to fully research the physiological responses of the body to that specific sports injury. They must include the relevant elements from the unit content (e.g. tissue responses to interventions, healing process and stages, neural responses, pain, visual analogue scale) Then ask the research pairs to feed back their findings in the form of another mini presentation.
- Formal delivery of the psychological responses to injury In pairs or small groups, learners can be allocated a sports injury, along with its cause (e.g. simple fracture of the ankle caused by an opponent's mistimed tackle in a football match) and they must consider the potential psychological responses and impact, in the short, medium and longer term, of the injury and the way it happened. Be sure to include a cross section of causes, times and severity of injuries within the group. Learners can feed back their thoughts to the group and discussion around psychological responses and the link between cause and response can be explored.
- Explore the psychological response to injury by inviting semi/elite/pro athletes who have sustained injuries to share their experiences and discuss the psychological effects.
- Consolidate individual learning by producing a quiz for the learners.

Learning aim B: Explore risk factors for the management and prevention of common sporting injuries

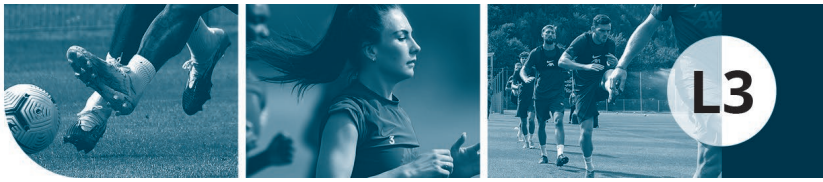
- Split the class into two teams – intrinsic and extrinsic. Each team should work together to ensure all of the unit content is researched using the internet and textbooks. Each team should devise a table identifying the risk factor, e.g. a column identifying 'Training error' and then another column stating all the risk factors associated with training errors. You should check the table to ensure all content has been included and is accurate in nature.
  - Each team should swap tables and proceed as a team to discuss preventative measures, and document these in an additional column.
  - Follow this up with tutor-led discussion regarding intrinsic and extrinsic risk factors, using visual aids such as digital footage to enhance learning.
  - Peer review should be encouraged throughout, with tutor-led questions and answers to individuals and groups.
- Learners can identify and evaluate formal processes that are designed to minimise risk, such as risk assessment, safety checks, first aid provision etc. Where documentation exists, examples can be handed out and discussed (e.g. the kind of information required on the form, why each question might be relevant, how following the designated process will minimise risk)
- Learners could select (or be allocated) a specific sport and they must research how risk is minimised through the use of rules, equipment, clothing, training techniques, playing surfaces etc. Learners could produce a poster, leaflet or presentation that 'sells' the sport in terms of how safe it is.
- Arrange guest speakers to discuss the importance of sports injury management, and its role in helping sports performers prevent or overcome common sports injuries. Guests could include sports coaches, managers or those responsible for health and safety. This could also be an opportunity to take learners to a venue, and provide wider discussion with regard to additional skills required for employability.



- Use formal delivery of principles of injury prevention and injury prevention models, utilising and applying learners' knowledge through discussion and question and answer.
- You could provide scenarios that allow learners in pairs to apply the injury prevention model. Learners then present back to the group with peer review and questions and answers.

Learning aim C: Develop treatment and rehabilitation programmes for common sporting injuries

- Introduce C1 to learners by discussing their experiences of dealing with injury and the use of first-aid skills.
- You or a qualified first aider could demonstrate common treatment methods. Learners can use role play to execute and practise practical skills. Discussion should go alongside this to encourage learners to apply theory confidently and effectively. A maximum of two skills should be delivered before learners practise them.
- Working individually or in pairs, learners could be allocated a specific treatment or equipment (as identified in the unit content) and they must develop a 'sales pitch' for it – explaining to the rest of the group what it could be used for, what's so good about it, USPs, using demonstrations as appropriate, etc.
- To consolidate learning and further develop confident and effective application, learners should be given a scenario or situation in which they need to practically execute treatment methods. You should question them during the application. The role-play situation could be digitally recorded and then analysed by the learner afterwards to see what they did correctly and what needs improvement.
- Introduce C2 and C3 to learners by using digital footage of aspects of rehabilitation, followed by a question and answer session to ascertain their prior knowledge.
- Use formal delivery of the stages and principles of rehabilitation using specific injury examples, real-life examples, and visuals aids and digital footage where possible.
- Learners could be given examples of real-life treatment and/or rehabilitation programmes in order to familiarise themselves with the content, structure, format etc.
- Methods of rehabilitation should be delivered in a practical environment and manner, ensuring learners fully engage with and experience all aspects. Discussion should include progression, alternatives, adaptations and any other considerations required, including monitoring.
- Learners could play 'rehabilitation exercise bingo' where they each fill in a blank bingo grid with rehabilitation exercises of their choice (taken from the unit content, to include range of motion, strengthening and coordination, and functional exercises, plus exercise accessories if you like) The tutor calls out each name/exercise at random and learners cross off if they have it on their card. An extension to the activity would see the tutor read out a description or definition rather than the name of the exercise or accessory.
- Learner understanding should be consolidated by splitting them into small groups and providing scenarios in response to which they design mini rehabilitation programmes or aspects of one. Peer learning should be encouraged with learners presenting to the group.



Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

This unit links to:

- Unit 16: Applied Coaching Skills
- Unit 24: Applied Sports Anatomy and Physiology
- Unit 27: Sports Psychology
- Unit 28: Fitness Testing
- Unit 29: Technical and Tactical Skills in Sport
- Unit 31: Influence of Technology in Sport and Physical Activity
- Unit 36: Functional Sports Massage.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC International L3 Qualifications in Sport. Check the Pearson website at: (http://qualifications.pearson.com/endorsed-resources) for more information as titles achieve endorsement.

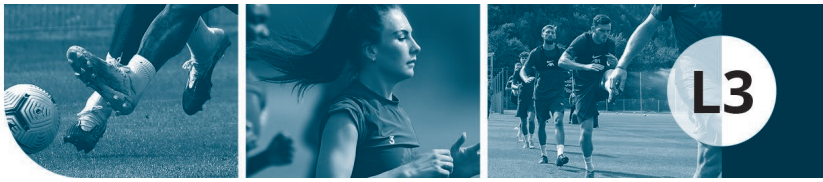
Textbooks

First aid:

- Ambulance St. J, *First Aid Manual (DK First Aid)* (10th Edition), Dorling Kindersley, 2014 ISBN 9781409342007 – First-aid manual.
- Gill W, *A Practical Guide to Sports First Aid*, Lotus Publishing, 2004 ISBN 9780954318864 – Protocols and practices regarding first aid.
- Landry G and Bernhardt D, *Essentials of Primary Care Sports Medicine,* Human Kinetics Publishers, 2003 ISBN 9780736003230 – Practices and protocols regarding treatment of injury.
- O'Byrne J and Devitt B, *Sports Emergencies: Management Scenarios*, Elsevier Science, 2010 ISBN 9780443068652 – Scenarios regarding sports emergencies and management.
- Ruben A, *Sports Injuries and Emergencies: A Quick-Response Manual*, McGraw Hill Professional, 2003 ASIN B001CNEUBO (Kindle Edition) – Practices and protocols regarding first aid and treatment of injury

Sports injuries:

- Bahr R and Maehlum S, *Clinical Guide to Sports Injuries*, Human Kinetics Publishers, 2003 ISBN 9780736041171 – Information regarding sports injuries, aetiology, mechanisms, injury risk factors and prevention.
- Brukner P and Khan K, *Clinical Sports Medicine* (Fourth Edition), McGraw Hill, 2012 ISBN 9780070998131 – In-depth information regarding all aspects of injury, prevention and rehabilitation.
- Gledhill A, Mackay N, Forsdyke D and Randerson K, *Foundations in Sports Therapy*, Heinemann, 2011 ISBN 9780435046859 – Inclusive of sports injury, physiological and psychological response, rehabilitation and professional practice. Reading for higher end learners.
- Kent M, *Oxford Dictionary of Sports Science and Medicine* (Third Edition), Oxford University Press, 2006 ISBN 9780199210893 – A sports, science and medicine dictionary.
- MacAuley D and Best T, *Evidence-based Sports Medicine*, Wiley-Blackwell, 2002 ISBN 9780727915849 – Covers an evidence-based approach to sports injury.



- Norris C, *The Complete Guide to Sports Injuries*, A&C Black Publishers, 2011 ISBN 9781408130773 – Fully comprehensive resource regarding sports injury.
- The *BMA Guide to Sports Injuries*, Dorling Kindersley, 2010 ISBN 9781405354288 –This is a comprehensive guide to sports injuries.
- Walker B, *The Anatomy of Sports Injuries: Your Illustrated Guide to Prevention, Diagnosis and Treatment* (Second Edition), Lotus Publishing, 2012 ISBN 9781905367382 – An annotated book regarding treatment and prevention of injury.

Rehabilitation and injury prevention:

- Beachle T and Earle R, *Essentials of Strength Training and Conditioning* (Third Edition), Human Kinetics Publishers, 2008 ISBN 9780736058032 – Information regarding strength and conditioning for rehabilitation.
- Comfort P and Abrahamson E, *Sports Rehabilitation and Injury Prevention,* Wiley- Blackwell, 2010 ISBN 9780470985632 – A comprehensive resource on rehabilitation and injury prevention.
- Peterson L and Renstrom P, *Sports Injuries: Their Prevention and Treatment* (Third Edition), CRC Press, 2000 ISBN 9781853171192 – Clearly defined information regarding acute and chronic injuries including aetiology, mechanisms and signs and symptoms.
- Prentice W, *Rehabilitation Techniques for Sports Medicine and Athletic Training* (Fifth Edition), McGraw Hill, 2010 ISBN 9780071289535 – Information regarding rehabilitation techniques.
- Walker B, *The Anatomy of Stretching: Your Illustrated Guide to Flexibility and Injury Rehabilitation* (Second Edition), Lotus Publishing, 2011 ISBN 9781905367290 – Provides information regarding stretching and stretching techniques.
- Wise C and Gulick D, *Always at Your Side Mobilization Notes: A Rehabilitation Specialist's Pocket Guide*, F.A. Davis Company, 2009 ISBN 9780803620964 – Provides information regarding rehabilitation protocols and practices.

Journals

The following journals provide articles relating to varied aspects of sports injuries content.

BMC Sports Science, Medicine and Rehabilitation (Springer Science and Business Media)

British Journal of Sports Medicine (BMJ Publishing Group Ltd)

Clinical Journal of Sports Medicine (Lippincott, Williams and Wilkins)

Journal of Physiotherapy and Sports Medicine (PGIP)

Journal of Science and Medicine in Sport (Elsevier Science)

Journal of Sports Rehabilitation (Human Kinetics Journals) *Peak Performance* (Green Star Media)

Research Quarterly for Exercise and Sport (Routledge)

Sports Injury Bulletin (Green Star Media)

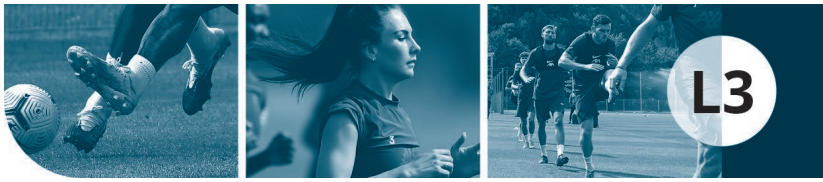
Websites

www.nsmi.org.uk – Sports Medicine Information – Provides information with regard to sports injury, classification, signs and symptoms, mechanisms, and injury prevention.

www.patient.co.uk – Patient Trusted Medical Information and Support – Contains specific information with regard to sports injuries such as signs and symptoms, treatment, and prevention.

www.redcross.org.uk – First

aid..www.sja.org.uk – First aid



www.sportsinjuryclinic.net – Sports Injury Clinic – Provides extensive information with regard to sports injuries, prevention and rehabilitation.

www.stopsportsinjuries.org – Stop Sports Injuries – Provides sport-specific injury and sport-related information.

www.topendsports.com – The Sports Fitness, Nutrition and Science Resource – Provides a range of information including sport, sport medicine and sports psychology.

Pearson is not responsible for the content of any external internet sites. It is essential for tutors to preview each website before using it in class so as to ensure that the URL is still accurate, relevant and appropriate. We suggest that tutors bookmark useful websites and consider enabling learners to access them through the school/college intranet.