

Orthopaedic Injury: Diagnosis and Management Online Course



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Learning Outcomes

At the completion of the course the participants should be able to:

1. Identify the immediate priorities in the management of the patient presenting with limb injury
2. Identify common fracture patterns in injuries to the upper limb
3. Describe the principles of assessment and immediate management of the patient with suspected fracture to the lower limb involving the femur or tibia.
4. Identify the clinical and radiological findings in patients presenting with anterior or posterior shoulder dislocation
5. Identify the plaster splint to the fracture type

Summary of the e-Learning Program

The e-learning is interactive and requires the clinician to consider a series of blood gases and identify key abnormalities. The mastery quiz incorporates both formative and summative assessment components. There are 5 key topics with a total course time of 9 hours.

The five topics are:

1. Assessment of limb injury
2. Upper limb Injuries
3. Lower limb injuries
4. Joint dislocations
5. Splinting Limb Injuries

Outline of the Program

1. Assessment: Approach to the Patient with Limb Injury

Module summary: In this first topic we explore some of the key principles for the assessment and diagnosis of orthopaedic injury. Although it is difficult to get excited about the topics of clinical and radiological assessment they are in fact important skills that are essential for the safe delivery of acute care to the patient with an orthopaedic injury. The topic provides a foundation for the clinically based discussions on upper and lower limb injury that follow.

Interaction/Assessment:

- Video eTutorial: Clinical Assessment of Orthopaedic Injury
- Video eTutorial: Describing Fractures
- Clinical Casebook: Clinical and Radiology Assessment of Limb Injury
- Topic Quiz – Module 1

2. Upper Limb Injury

Module summary: The videos and modules present a series of clinical cases of upper limb injury. The modules utilise an interactive approach that presents the clinical case and radiological findings and then asks you a clinical question in relation to the case. Do not worry if you are unsure of the correct answer, the process of exploratory learning provides a useful way in which to assess what you already know and to assimilate new knowledge and learning. Once you are confident you understand the topic try the quiz - this is marked and is designed to assess your understanding of the topic.

Interaction/Assessment:

- Video eTutorial: Upper Limb Injury – Part 1
- Video eTutorial: Upper Limb Injury – Part 2
- Case Simulation – Upper Limb Injuries (Part 1)
- Case Simulation – Upper Limb Injuries (Part 2)
- Topic Quiz – Module 2

3. Lower Limb Injury

Module summary: In this topic we continue our journey through bony and soft tissue limb injury, this time focusing on injuries to the lower limb. We consider severe orthopaedic injuries such as fractured neck of femur and fractured femoral shaft, limb threatening injuries such as fractured tibia and fibula with the significant risk of compartment syndrome and the common soft tissue injuries around the ankle including "ankle sprain" and ruptured achilles tendon noting that these apparently less severe injuries unless diagnosed and treated correctly can lead to long term disability for the patient.

Interaction/Assessment:

- Video eTutorial: Lower Limb Injury – Part 2
- Case Simulation – Lower Limb Injuries (Part 1)
- Case Simulation – Lower Limb Injuries (Part 2)
- Topic Quiz – Module 3

4. Joint Dislocation

Module summary: In this topic we focus our attention on joint dislocation and explore the clinical and radiological diagnosis, important complications known to be associated with the particular injury and the approach to emergency management of the patient with dislocation. The video-eTutorial examines a range of common joint dislocations while the clinical case books explore in greater detail the clinically important joint dislocations in seen in acute care. Links to the clinical resources discussed in the clinical case book are provided for easy reference.

Interaction/Assessment:

- Video eTutorial: Introduction to Joint Dislocation
- Case Simulation: Joint Dislocation (Part 1)
- Case Simulation: Joint Dislocation (Part 2)
- Topic Quiz – Module 4

5. Immobilising Fractures with Plaster Splints

Module summary: Immobilisation of limb fractures is undertaken to stabilise unstable fractures, provide pain relief and prevent complications (eg bleeding, nerve injury). Fractures may be immobilised using casts or splints. Casts are circumferential and should not be placed on the acutely injured limb due to risk for swelling and potential for neurovascular compromise. Splints differ from casts as they do not completely surround the limb and are most suited to providing immobilisation in the Emergency Department. Once the swelling has settled the splint is often replaced with a cast as these are more effective at immobilising the fracture (encouraging healing) and in some cases allow greater mobility (eg walking plaster).

Interaction/Assessment:

- Video eTutorial: Plaster Splinting (Part 1)
- Video eTutorial: Plaster Splinting (Part 2)
- Topic Quiz – Module 5

6. Final Post Course Assessment

Final Course Quiz (1)

Final Course Quiz (2)