

## **Weeks 5 & 6: Muscles and Movement**

### **Learning Outcomes**

After producing the presentation on your topic, attending and taking notes at the other presentations, and revising these notes before the examination you should be able to:

1. Describe the muscles that act on the shoulder.
2. Discuss *Carpal Tunnel Syndrome*.
3. Describe general muscle function throughout the body.
4. Describe the muscles that act around the ankle joint.

This practical is not assessed directly but the material covered in this practical will form part of the examination.

#### **NOTE:**

Descriptions of all problems can be found at:

<http://mac-huwis.lut.ac.uk/~wis/lectures/>

## **Problem 1.**

A firm is producing a machine that will be used to exercise the muscles of the shoulder. They want you give a presentation to their technical division that illustrates which muscles are involved in specific movements at the shoulder and how these muscles might be exercised. Their marketing division will also be present and they are interested in how these muscles are normally used so they can put it in their advertising literature.

## **Problem 2.**

A company producing pianos wants to advise customers on carpal tunnel syndrome so that professional players are better informed about possible risks. Your group has been asked to give a presentation to their sales team on the anatomical basis of carpal tunnel syndrome, its aetiology, symptoms and treatment.

### **Problem 3.**

As part of an initiative to encourage children to take up exercise you have been asked to produce a simple, child-friendly exercise regime. As part of the evaluation process you have been asked to give a presentation illustrating the exercises you propose and the muscle groups that will be involved with each movement.

#### **Problem 4.**

As part of a screening exercise for muscular disease you have been asked to devise a simple set of tests that can be used to demonstrate the normal functioning of the major muscles in the body. An ethics committee has asked you to give a presentation describing your tests, including how they are applied and what muscles they test. They also wish to know which muscles you are unable to test in this fashion.

## **Problem 5.**

Your group has been asked to prepare a brief for a team of lawyers involved in a personal injury case. Their client got their foot and the distal half of their lower leg caught in a piece of industrial machinery and suffered severe crushing injuries. You have been asked to give a presentation on the muscular damage that may have been caused with particular emphasis on the movements and functions that may have been affected.