

Unit 4 Sports Injuries

Homework Task: Describing a home exercise

** Prepare instructions for an exercise.*

** Describe what type of exercise it is, what conditions it may be used for, how to do the exercise and any other instructions that could be important.*

** We will review some of these examples next seminar.*

Revision from seminar 3

** Complete the gaps in the text using the words below:*

increase joints recovery health immune regular cardiovascular

Physical exercise is the performance of some activity in order to develop or maintain physical fitness and overall _____. Frequent or _____ exercise is an important component in the prevention of diseases such as cardiovascular disease, Type 2 diabetes and obesity.

Exercises may be grouped into several types, depending on the overall effect they have on the human body:

1. Flexibility exercises such as stretching improve the range of motion of muscles and _____.
2. Aerobic exercise such as walking and running focus on increasing _____ endurance.
3. Anaerobic exercise such as weightlifting or sprinting _____ muscle strength.

Physical exercise is important for physical fitness including healthy weight, building and maintaining healthy bones, muscles and joints; and strengthening the _____ system.

Proper nutrition is at least as important to health as exercise. When exercising it becomes even more important to have a good diet to ensure the body has the correct ratio of micro and macronutrients to help the body with the _____ process after exercising.

(Adapted from: http://www.sciencedaily.com/terms/physical_exercise.htm)

** Name the exercises described below from the list.*

** What type of exercise is each one? Eg flexibility, strengthening etc.*

straight leg raise quads stretch shoulder elevation push ups
standing balance bridge position calf stretch
heel slides (knee flexion) standing forward bend sit ups

- Laying supine with the knees bent, lift your bottom up off the ground:

- In standing, link your hands then lift both arms forwards and up towards the sky:

- Standing on one leg, pull your foot up behind you towards your bottom:
- In supine with one knee bent up and keeping the other leg completely straight, tighten your quad muscles and lift the leg straight up and down 10 x:
- Laying on your back, hands behind your head and knees bent up, lift your trunk up and down to work your abdominal muscles:
- Standing on one leg, lift the other leg up and try and maintain your balance, while closing your eyes:
- Laying on your back with the legs out straight, slowly slide one heel up towards your bottom, then return back down:
- Leaning into the wall with one leg behind you, one leg in front – lean forwards until you feel a stretch in the back leg:
- Starting in prone, lift your body up and down off the floor using your arms with your knees straight and feet contacting the floor:
- In standing with your knees straight, slowly stretch your arms down towards your toes, until you feel a stretch in your hamstrings or lumbar spine:

Unit 4 Sports Injuries

1. Speaking: Answer the following questions:

- * *Why do people get injured playing sport or exercising?*
- * *If sport causes injuries should people avoid playing sport?*
- * *Does playing sport or doing exercise bring other benefits? If so what are they?*
- * *What are some common sports injuries? What is the usual mechanism of injury of these?*

2. Sports injuries – Vocabulary

a) Check the pronunciation of these words and explain what they mean:

inflammation - concussion – contusion – fracture – meniscus – cartilage – recovery – severe - chronic

b) Study the injuries in the list, then answer the questions below:

Achilles Tendinitis

The Achilles tendon attaches the muscles of the lower leg (gastrocnemius and soleus) to the heel. Achilles tendinitis is inflammation of this tendon generally caused by overuse or excessive loading during sport or exercise.

Cruciate Ligament Injury

The anterior cruciate ligament (ACL) and the posterior cruciate ligament (PCL) attach the thighbone (femur) to the shin bone (tibia), acting to stabilize the knee joint. The ACL and PCL can be injured primarily by rotational forces on the knee. ACL and PCL sprains are categorized as first, second, and third-degree.

Concussion

A concussion is caused by a direct blow to the head. Depending upon the severity of the concussion, injury can cause varying levels of **impairment** of brain function. Concussions are categorized as mild (grade 1), moderate (grade 2), or severe (grade 3) depending upon symptoms.

Contusion

A contusion is basically a deep bruise that is caused by direct **impact**. In football we generally hear about quadriceps (thigh) contusions.

Dislocation

A dislocation occurs when the ball of a joint is forced out of its socket (i.e. the arm / head of the humerus is forced out of the shoulder joint). A dislocation usually needs to be **reset** or relocated by a medical professional.

Fracture

A fracture is a break, crack, or shattering of a bone. In closed fractures, the broken bone does not **pierce** the skin, while in open fractures, the broken bone breaks the skin's surface.

Meniscus Injuries

The medial and lateral menisci are the cartilage shock absorbers located inside the knee joint. These can be damaged by **excessive** twisting, turning, or compression at the knee joint, which can produce a tear. Due to the poor blood supply, meniscal injuries may require surgery for repair.

Sprain

This is an injury that involves the stretching, partial tearing, or complete rupture of a ligament. Sprains are categorized as first, second, or third degree. Sprains occur when a joint is forced beyond its normal range of motion, such as spraining or twisting your ankle.

Stinger

A stinger, also called a burner or nerve pinch injury, is a common injury in football. This injury involves a stretch or compression of the brachial plexus (a complex system of nerves that involve the back, neck, shoulders, and arms). Stingers generally cause shooting pain down the arm(s).

Strain

Strains are injuries that involve the stretching, **partial** tearing, or complete tearing of a muscle. Strains are categorized as first, second, or third degree. Chronic strains are injuries that recur, usually when proper injury recover or rehabilitation hasn't occurred.

(http://www.fftoolbox.com/football/football_injury_glossary.cfm)

c) Complete the gaps with the expressions highlighted above, change the form if necessary:

The operation was only a success.

Renal needs to be treated urgently.

If you suffer a fracture, you may need to see a professional to have it

..... exercise can lead to muscle strain.

The needle his skin.

Football is a low- sport – there is little stress on joints.

d) Grammar: Correct the below sentences if needed. Are they true?

An ACL injury is one of the most mild injuries that can happen to the knee.

A third degree ankle sprain is severer than a first degree sprain.

An open fracture is most painful than a closed fracture as it pierces the skin.

A contusion is more deep than a regular bruise, so it's also more long to heal.

Muscle strains can become chronic if proper rehab isn't performed on the injury.

A stinger is a commoner injury than a meniscal injury in football.

If someone continues to run on a severe ankle sprain, then it will get worsen.

A fracture is the painfulest injury that can occur to a bone.

3. Injuries - Causes and symptoms

** Which of the below are the causes and which are the symptoms of sports injuries?*

** Can you think of some other causes and symptoms?*

- athletic equipment that malfunctions or is used incorrectly
- weakness and pain
- falls
- limited range of motion
- swelling
- forceful high-speed collisions between players
- instability or obvious dislocation of a joint
- inability to move a limb
- overloading or overstress of a particular structure / part of the body
- muscle spasm

4. Treatment of injuries

a) Explain what the acronym RICE means. Why is it relevant in sports physiotherapy?

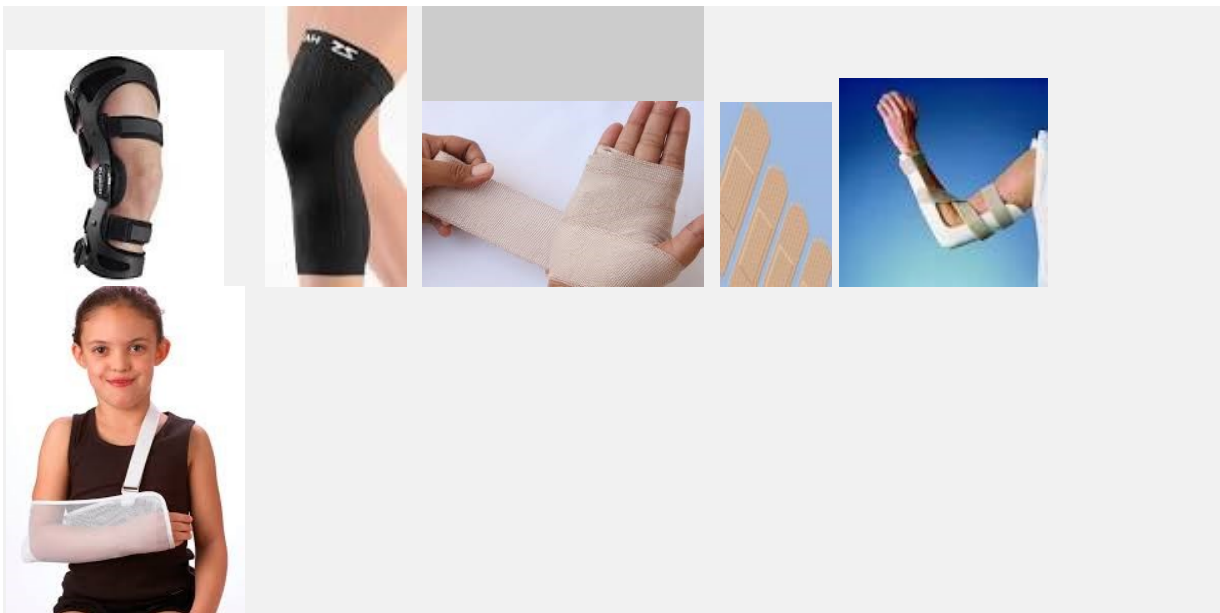
R
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b) Now explain what HARM means. Why is this important for a patient with a sports injury to know?

H
A
R
M

c) Match the words below with pictures:

bandage – sling – knee sleeve – arm splint - sticking plaster - knee brace



d) What other forms of treatment do physiotherapists use for sports injuries:

5. Subjective questions for the injured patient. Complete the phrases:

- Do you know what _____ or triggered the problem?
- _____ this problem before, so far in your life?
- Are you in p _____?
- Where does it h _____?
- Is it _____, moderate or severe pain?
- Is the pain s _____ or dull, _____ or intermittent?
- Do you have any tingling s _____ or _____ and needles in your hands or feet?
- Does the pain feel deep or _____ (on the surface of the skin)?
- Did the symptoms start _____ or come on more gradually?
- Do you have any _____ pain going down into your lower limb?

- k) Have you noticed any dizziness or _____ (problem with the eyes) disturbance?
- l) Have the symptoms got _____ or _____ since it started?
- m) Have you noticed any _____ or other noise in your knee since the injury?
- n) What movements _____ your pain? What positions ease your symptoms?

6. Injuries - Quiz

1. The floor is wet, you might _____.
a) trip b) slip c) flip
2. Your room is very messy, you might _____ over all those cables.
a) kick b) bump c) trip
3. I hit my arm hard against the table and now I've got a big _____.
a) bruise b) blister c) scar
4. He _____ the stairs, but he's OK. Don't worry.
a) fell off b) fell out c) fell down
5. Put your foot into cold water to help the _____ go down.
a) graze b) wound c) swelling
6. He wasn't careful and _____ his hand on the stove.
a) cut b) bruised c) burned

Homework task:

Listening: How to prevent youth sports injuries
<http://www.youtube.com/watch?v=JwJHit6j5QU&feature=related>

** Discuss the questions below with your partner before you listen – how would you answer?*

** Then listen to an interview with a sports program director talking about prevention of injuries and note down his answers.*

1. What has caused an increase in youth injuries?
2. How many kids are hurt annually?
3. What are the 6 tips given to parents to help injury prevention in children?

.....

4. What is the most dangerous sport for girls and why?