

## Unit 2 Fitness and medical problems

### Task 1 Fitness

- a) **Talk to your partner. The purpose of your conversation is to find out who is fitter. What questions will you use to find out?**
- b) **Reading**

Overall fitness is made up of five main components:

*Body composition*

*Cardiorespiratory endurance*

*Flexibility*

*Muscular strength*

*Muscular endurance*

### Match the components of fitness from above with their definitions:

.....is the ability of the body's circulatory and respiratory systems to supply fuel during sustained physical activity. To improve it, try activities that keep your heart rate elevated at a safe level for a sustained length of time such as walking, swimming, or bicycling. Start slowly with an activity you enjoy, and gradually work up to a more intense pace.

.....is the ability of the muscle to exert force during an activity. The key to making your muscles stronger is working them against resistance. If you want to gain muscle strength, try exercises such as lifting weights or rapidly taking the stairs.

.....is the ability of the muscle to continue to perform without fatigue. To improve it, try cardiorespiratory activities such as walking, jogging, bicycling, or dancing.

.....refers to the relative amount of muscle, fat, bone, and other vital parts of the body. A person's total body weight (what you see on the bathroom scale) may not change over time. But the bathroom scale does not assess how much of that body weight is fat and how much is lean mass (muscle, bone, tendons, and ligaments).

.....is the range of motion around a joint. In the joints it can help prevent injuries through all stages of life. If you want to improve this skill, try activities that lengthen the muscles such as swimming or a basic stretching program.

(Adapted from <http://www.seekwellness.com/fitness/>)

## Task 2 Benefits of exercise

- a) **Discuss. What benefits of exercise do you enjoy?**
- b) **Read the text. Explain the phrases in italics in your own words.**

The benefits of exercise are *far-reaching*. Clinical and epidemiological studies have demonstrated that regular aerobic *exercise reduces the risk of death due to heart disease and stroke*, aids in reducing weight, helps prevent diabetes mellitus, strengthens bones, and enhances immune function. The psychological benefits are also broad, and most studies suggest *a positive relationship between physical fitness and mental achievement*.

How much exercise is enough to improve general health, reduce the risk of heart disease, and *increase longevity*? It is clear that regular exercise, along with a generally healthy lifestyle, is beneficial. People who have *sedentary lifestyles* make up half the population of industrialized societies.

(Adapted from "Exercise," Microsoft® Encarta® Online Encyclopedia 2)

- c) **Complete the text using the first and last letters of the word:**

To summarise, regular exercise improves blood *c*\_\_\_\_\_n, prevents and manages high blood *p*\_\_\_\_\_e, keeps *w*\_\_\_\_\_t under control and improves your *s*\_\_\_\_\_h and flexibility.

Furthermore, physical activity improves your self-*i*\_\_\_\_\_e, as well as the ability to sleep well, manage *s*\_\_\_\_\_s and tension.

## Task 3 Illness and exercise

Physical activity is good for our bodies in many ways. However, there are times when illness makes some type of exercise difficult or unwise. On the other hand, there are specific exercises that can be used to help with particular conditions.

- a) **Read the recommendations for people with one specific condition – can you guess which one it is?**

*Start gradually if you are not used to regular exercise. Make sure you have a snack or drink of water when you need it, as becoming dehydrated will make you feel worse. If at any point you feel pain in your chest, arms or neck, stop exercising and rest. You must be careful about the exercise you take, especially aerobic exercise. Overdoing it will put a strain on the damaged tissue and could bring on angina.*

- b) **Write down advice on exercising for people with another medical condition and let the others guess what condition you have in mind.**

- c) **Listening**

**Exercise and asthma** ([https://www.youtube.com/watch?v=Oi\\_bJXG7MyE](https://www.youtube.com/watch?v=Oi_bJXG7MyE))

**Listen to an expert giving tips on exercising to people with asthma and take down the main points.**

- What does asthma cause?
- What triggers asthma attacks?
- What are common symptoms?
- What kinds of exercise should asthmatics do? What precautions should they take?

## Task 4 Modals

### a) Match phrases with similar meaning:

You don't have to...	He managed to...
He was able to...	Do you mind if I...?
May I ...?	It isn't necessary for you to...
Shall we ...?	It is forbidden ...
You mustn't ...	You are supposed to...
You should ...	It was necessary for them to...
They had to...	Let's ...

### b) Modals expressing certainty

**certain** - must

E.g. *It must be true.*

**possible** – may/might

*It may be true.*

**unlikely** – can't

*It can't be true.*

#### Complete the gaps with modal verbs **must/ may/ might/ can't**:

I'll probably be going to the conference so I ..... see you there.

John is sweating and can hardly speak. He ..... be very well.

I'm sure it's true. It simply ..... be true.

Oh, you ..... be Mrs. Blunt. Nice to meet you.

Jenny is on an assignment in Bali, she ..... be in her office now.

You can't be serious. You ..... be joking.

### c) We use **should(not) have + past participle** to talk about and criticise things we did and didn't do in the past.

E.g. *They **should have thought** more carefully before putting the information on social media.*

*He **shouldn't have used** that language at a job interview.*

#### Comment on these sentences using **should have + past participle**:

1. Angela didn't follow the doctor's advice and didn't take her medicine.

.....

2. Paul didn't study for his exams. He spent his evenings going out with his friends.

.....

3. Jenny neglected warm-up .

.....

4. Tom didn't drink enough water on a hot day.

.....

**Task 5 Reading** More than 10 million sports injuries occur each year. Most sports injuries are due to either traumatic injury or overuse of muscles or joints.

### Wounds

A **wound** is any break in the skin or body surface. **Cuts** can be caused by sharp edges such as jewellery or stones. When the skin is cut, the blood vessels at the wound edges are cut straight across, so blood loss is very likely. **Grazes** are wounds in which the top layers of skin are scraped off. Grazes are commonly caused by a sliding fall (trip on a running track) or friction burn (hands sliding along a rope).

### Bone injuries

A **fracture** is a break or crack in the bone. Bones can break when a *direct impact* is received (hockey stick striking the shin) or *indirect force* is produced by a twist or a wrench (a trip or stumble).

### Joint/Muscle Injuries

#### **Sprain**

Injury to a ligament at, or near, a joint. It is often the result of a sudden or unexpected wrenching movement at the joint that pulls the bones within the joint too far apart and tears the tissues surrounding the joint.

#### **Strain**

Overstretching of the muscle, which may result in a partial tearing.

#### **Deep bruising (soft tissue injury)**

These injuries are usually accompanied by bleeding into the damaged area, which can lead to pain and swelling.

#### **Rupture**

Complete tearing of the muscle, which may occur in the fleshy part or in the tendon.

### Heat Exhaustion

Heat exhaustion, an advanced condition of *hyperthermia*, is very common in marathon runners; especially in hot, humid conditions. The body temperature rises, which makes blood rush to the skin to cool it down. This makes less blood available to the working muscles and so extreme tiredness, breathlessness and dizziness occurs.

### Unconsciousness

Unconsciousness occurs from an interruption of the brain's activity.

#### Shock

The circulatory system distributes blood round the body, so that oxygen and nutrients can be fed into the tissues. When the system fails, circulatory shock will develop. If not treated immediately, vital organs such as the brain may fail. A typical cause of shock is a blow to the chest (winding).

**Symptoms** include: cold and pale skin, shaking or chills, chest pain, a weak but rapid pulse, shallow breathing, dizziness or general weakness, vomiting, unconsciousness.

### **Task 6 Test your knowledge of injuries. Mark the following statements True or False.**

1. A wound where the top layers of skin are scraped off is called a rupture. **T/F**
2. Both sprains and strains affect muscles. **T/F**
3. Hypothermia occurs when the body is exposed to excessive heat. **T/F**
4. A player who is winded and knocked to the ground could go into shock. **T/F**
5. Shock occurs when blood pressure drops and the organs do not receive enough blood. **T/F**

### Task 7 Vocabulary

Complete the sentences with the words below.

*bleed scar concussion minor pain swollen blister bruise scratched wound sprained*

1. My ankle is very.....
2. Do you ..... easily?
3. I've ..... my wrist.
4. This ..... was caused by flying glass.
5. The .....will disappear in a few days.
6. The operation only left a small .....
7. Look where the cat ..... me.
8. His injuries are all fairly.....
9. Are you in.....? Do you need an Aspirin?
10. I've got a terrible.....on my foot.
11. He lost consciousness as a result of a blow to the head and was taken to hospital with .....

### Task 8 Listening

(<https://ed.ted.com/lessons/what-happens-during-a-heart-attack-krishna-sudhir>)

Watch and answer the questions below:

1. What causes a heart attack?
2. What are the symptoms of a heart attack?
3. How should one respond to a heart attack?
4. How do doctors diagnose and treat a heart attack?
5. What can we do to prevent a heart attack?

Watch again and fill in the missing words:

1. Cardiovascular disease causes problems such as heart attacks and \_\_\_\_\_ .
2. Arteries are the \_\_\_\_\_ that supply oxygenated blood to the heart.
3. If one of the plaques \_\_\_\_\_ or cracks, a blood clot will form around it.
4. The situation can quickly get worse in the absence of \_\_\_\_\_ .
5. In the worst case scenario a heart attack can cause \_\_\_\_\_ .
6. Some people experience nausea and \_\_\_\_\_ of breath.
7. In people with diabetes a heart attack can be \_\_\_\_\_ .
8. Doctors use a blood test to \_\_\_\_\_ heart muscle damage.
9. Cardiologists can reopen the blocked artery by \_\_\_\_\_ it with a balloon.
10. More serious blockages might require coronary artery bypass \_\_\_\_\_ .