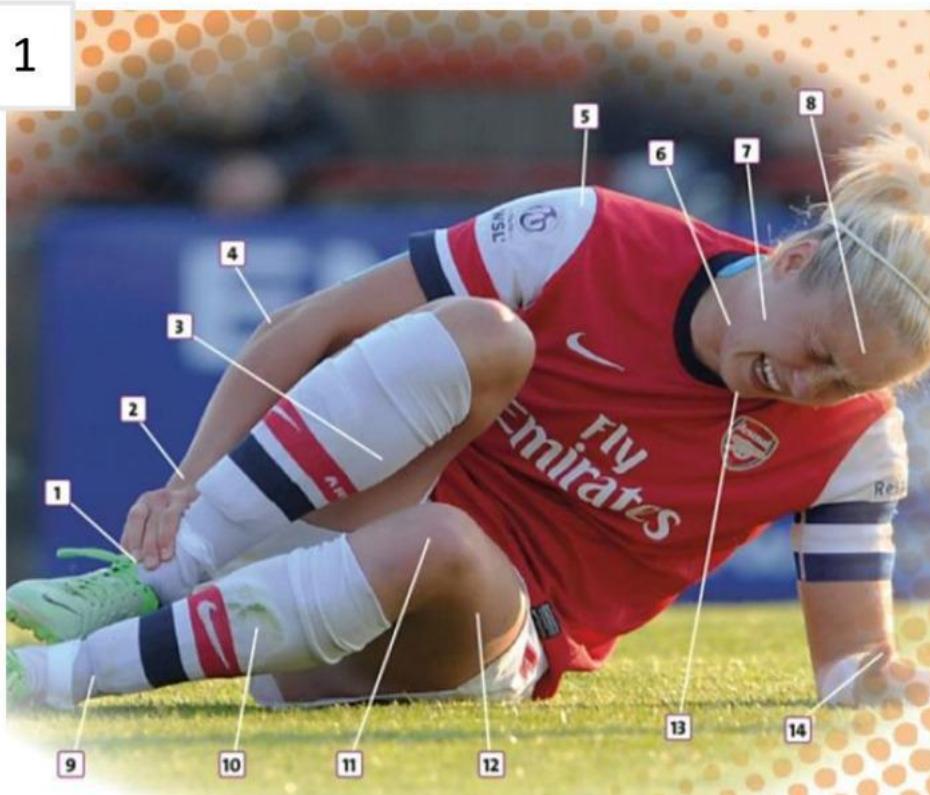


Lesson 6

1



1 **SPEAKING** Describe the photo. How is the footballer feeling?
What has happened, do you think?

2 **VOCABULARY** Match 1–14 in the photo with parts of the body from the list below.
Check the meaning of all the words in the list.

Parts of the body ankle blood bottom brain calf cheek chin
elbow eyebrow eyelid forehead heart heel hip intestine jaw
kidney knee lip lung muscle nail rib scalp shin shoulder skin
skull spine stomach thigh throat thumb toe waist wrist

2

1.27 **VOCABULARY** Listen to four dialogues between doctors and their patients. Complete the table using the words below to complete the treatments.

Treatments antibiotics bandage cream
dressing medicine painkillers X-ray

Patient	1	2	3	4
Part of the body injured				
When				
Treatment				

3

1.27 Read the **Recycle!** box. Complete the extracts from the dialogues with the verbs in brackets. Use the present perfect or past simple. Listen again and check your answers.

Dialogue 1

a My ankle really hurts. I think I _____ (twist) it.
 b Yes, it's a bit swollen. You _____ (sprain) it.

Dialogue 2

c I _____ (have) an accident. I _____ (bang) my head.
 d I _____ (trip) over the cat and _____ (hit) my head on the corner of a table.

Dialogue 3

e I _____ (hurt) my thumb. I _____ (trap) it in the car door.
 f You _____ certainly _____ (bruise) it.
 g It's really painful. Do you think I _____ (break) it?

Dialogue 4

h I _____ (burn) my hand. I _____ (pick up) a very hot saucepan.
 i When _____ it _____ (happen)?

4

1.29 Read and listen to the article. Complete the article with numbers and measurements from exercise 2.

There are many amazing stories of human survival, but actually our bodies are very fragile and do not cope well with extremes. Polar explorers can cope with temperatures of ¹_____, but only if they keep warm. Most people will collapse if their body temperature drops by only ²_____, and if it drops by ³_____, they'll die. Heat can be just as dangerous. Temperatures of 35°C are safe, provided humidity is not above ⁴_____. High altitudes are dangerous too. We pass out when the pressure falls below ⁵____% of normal atmospheric pressure. This happens at about ⁶____ metres. Climbers can go higher because their bodies gradually get used to it, but no one survives for long at 8,000 metres. At high altitudes, lack of oxygen is another problem. At ground level, about ⁷____% of the air is oxygen. If that falls below ⁸____%, we die.

5

1.30 Read the sentences. Each one contains a mistake with a number. Listen and correct the mistakes.

- 1 Normal body temperature for humans is 36.5–37.5°C.
- 2 An increase of just 5°C above normal body temperature can make you feel unwell.
- 3 About a quarter of people who go to Accident and Emergency have a fever.
- 4 You can get frostbite if the temperature of your skin falls to 10°C or below.
- 5 In 2000, a Norwegian woman survived after her body temperature had fallen to 30.7°C.
- 6 Less than 30% of adults whose temperature drops below 28°C survive.

6

1.31 Listen to an interview with a scientist. Which of the people he talks about tested the body's limits deliberately?

7

1.31 Read the sentences aloud, paying attention to the numbers. Then listen again and decide whether the sentences are true or false. Write T or F and correct the false sentences.

- 1 When a Russian space capsule had a major problem in 1971, the cosmonauts died in less than 30 seconds.
- 2 In 1966, a scientist passed out after 15 seconds in a vacuum.
- 3 The scientist passed out for 27 seconds.
- 4 In the 1960s, Randy Gardner stayed awake for more than 250 hours.
- 5 After staying awake for so long, Randy Gardner then slept for almost 50 hours.

HOW MUCH SLEEP DO WE NEED?

- Young children need more sleep than adults and tend to wake up earlier. A typical ten-year-old needs about ten hours' sleep.
- As you reach adolescence, your body clock changes. Most teenagers need about nine hours' sleep, but wake up later.
- As an adult, you'll need about eight to eight and a half hours' sleep a night.
- When we are much older, in our 70s and 80s, we're less able to sleep deeply and we usually need less sleep.

OUR PERSONAL BODY CLOCK

Each of us has our own personal body clock, which makes us more alert in the morning or more alert in the evening. You might be a 'lark' who likes to go to bed early and get up early, or you might be an 'owl' who prefers to go to bed late and get up late. Or somewhere in between.

A 6A.M. - 9A.M. Your body is waking up. It stops producing melatonin, the hormone which makes you feel sleepy. Blood vessels are stiffer and less flexible. Your blood is thicker and stickier and your blood pressure is at its highest, so it's not the best time to **exercise**.

B 9A.M. - 12P.M. You're at your most alert at this time in the morning. Tests show that short-term memory is at its best right now. It's a good time to get a lot of **work** done, because you'll experience a big dip after lunch.

C 12P.M. - 3P.M. Your stomach is full and working **hard** after lunch. You become much less alert and probably feel a bit sleepy. More road accidents happen at this time of day than at any other, particularly involving older people.

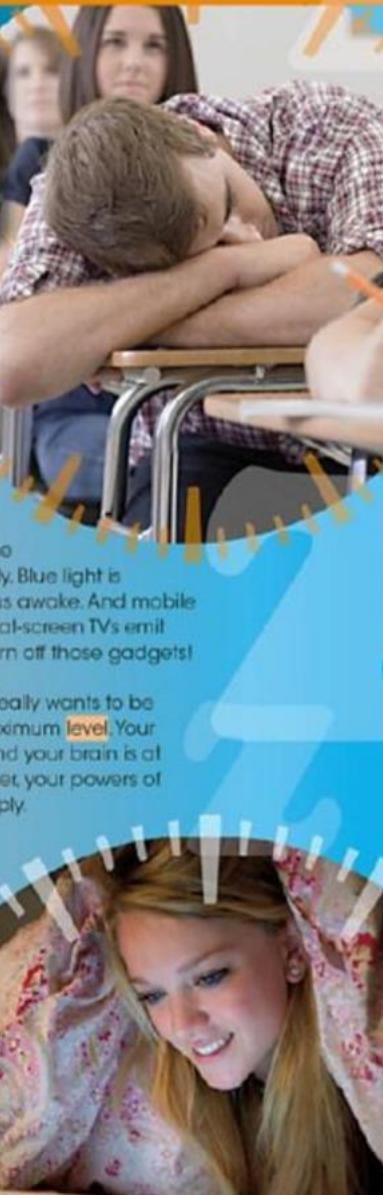
D 3P.M. - 6P.M. This is a very good time to **exercise**. Body temperature increases in the late afternoon. Your heart and lungs work better and muscles are six per cent stronger than at their lowest point in the day. Some sportspeople believe that if you try to break a world **record** at this time of day, you'll have a greater chance of success.

E 6P.M. - 9P.M. By now you'll be getting hungry. But don't eat too late! In the evening, our bodies struggle to digest fats and sugars. Studies show that people will lose more weight if they have their main meal at lunchtime rather than in the evening. (But how much you eat is always more important than when you eat.)

F 9P.M. - 12A.M. It's getting near to bedtime. Your body temperature is falling and your body clock is telling you that it's time for bed. Your body is producing lots of melatonin to help you go to sleep. It can be difficult to sleep with the **light on** because light reduces the amount of melatonin in your body. Blue light is particularly effective at keeping us awake. And mobile phones, computer screens and flat-screen TVs emit large amounts of blue light. So turn off those gadgets!

G 12A.M. - 3A.M. Your body really wants to be asleep. Melatonin reaches its maximum **level**. Your stomach has stopped working and your brain is at **rest**. If you stay awake much longer, your powers of concentration will decrease sharply.

H 3A.M. - 6A.M. Melatonin levels are still high, and you are in deep sleep. Your body temperature is much cooler than at any other time of the day. As dawn approaches, your melatonin levels will decrease and your body will prepare to wake up.



8

Match the paragraphs (A–H) with questions 1–10 below.
Two of the paragraphs match more than one question.

In which period of the day ...

- 1 do you completely stop digesting food? _____
- 2 is it best to be physically active? _____
- 3 do our bodies have difficulty digesting certain foods? _____
- 4 are older people more likely to have accidents? _____
- 5 does your body contain the most melatonin? _____
- 6 are you best at remembering things over short periods of time? _____
- 7 are you at your strongest physically? _____
- 8 does your body stop making melatonin? _____
- 9 is your body at its coolest? _____
- 10 does your body begin to become cooler? _____

9

Read the article again and answer the questions.

- 1 How much more sleep does a young child need than an adolescent?
- 2 What's the difference between 'larks' and 'owls'?
- 3 Why is it better not to exercise early in the morning?
- 4 When do sportspeople think is a good time to try to break a record?
- 5 If you want to lose weight, which is more important: when you eat or how much you eat?
- 6 Why is it not a good idea to use gadgets such as tablets and mobiles late at night?