



Weather changes

Lesson code: 11C9-H468-UJ4Q

UPPER INTERMEDIATE +

1 Warm-up

Describe your country's weather.

2 Key words

Match the words on the left with their definitions on the right.

- | | |
|----------------------------|---|
| 1. migraine | a. a severe continuous headache |
| 2. trigger (<i>verb</i>) | b. authorized time off work because you are ill |
| 3. humidity | c. conclusions reached after an examination or research |
| 4. folklore | d. disagreement or argument about an important issue |
| 5. findings | e. something that causes something bad to start |
| 6. sickness absence | f. the amount of moisture in the air |
| 7. controversy | g. to cause something bad to start |
| 8. trigger (<i>noun</i>) | h. traditional old wisdom, stories and culture |

3 Find the information

Read the article about a research study in the USA linking weather changes and headaches, and find the following information:

1. The number of patients monitored in the research study.
2. The main cause of headaches among the research patients.
3. The increased risk of a severe headache caused by a rise in temperature.
4. The percentage of women who suffer from migraines.
5. The percentage of men who suffer from migraines.
6. Four typical causes of migraines.



THE
INDEPENDENT

How changes in weather can give you a headache

Scientists discover why weekend warm spell may have given you a migraine

By Jeremy Laurance, Health Editor

- 1 Did you get a headache at the weekend? If so, scientists think they know why - it was the weather. A rise in temperature or a fall in barometric pressure, which often accompanies a thunderstorm, could trigger a headache or migraine.
- 2 Headache sufferers have long suspected that changes in weather can trigger an attack. Now they have scientific backing for their claims from one of the largest studies on the link. Researchers who monitored 7,000 patients with headaches serious enough to make them seek treatment at a hospital AE department found the main trigger was a rise in temperature in the previous 24 hours.
- 3 The risk of a severe headache rose by 7.5 percent for every 5C rise in temperature. Falls in barometric pressure in the previous 48 to 72 hours also had an effect, though to a lesser extent. But other effects such as humidity and air pollution had no impact, the findings revealed.
- 4 The results of the study, done by scientists at the Beth Israel Deaconess Medical Centre in Boston in the United States, provide evidence for a piece of clinical folklore. But they do not explain the link, or what mechanism may lie behind it.
- 5 Kenneth Mukamal, who led the study published in Neurology, said: "Our results are consistent with the idea that severe headaches can be triggered by external factors. These findings tell us that the environment around us does influence our health and, in terms of headaches, may be impacting many, many people."
- 6 About 18 percent of women and 6 percent of men suffer from migraines, which are more common among the young than the old, and impose a huge drain on the economy from sickness absence. Migraines are known to be set off by triggers, including certain foods, alcohol, stress and hormones. But controversy has surrounded the supposed link with the weather. Dr Mukamal added that patients should try to identify the triggers that lead to their headaches.
- 7 Although weather-related triggers cannot be avoided, doctors might be able to prescribe drugs to prevent the effects.
- 8 Peter Goadsby, the director of San Francisco's Headache Centre said: [It is] "an interesting study that confirms earlier research that barometric pressure change and increased temperatures can precipitate migraine. The challenge for clinical science is to link this seemingly odd trigger to the brain mechanisms involved in migraine."
- 9 This week in London, Friday is forecast to be the day with the sharpest temperature rise, which could push more people to reach for their medication.

Tuesday, 10 March 2009



4 Checking understanding

Read the text again and decide whether the following sentences are true or false:

1. Scientists now believe there is a connection between weather changes and headaches.
2. According to the research, humidity and air pollution also lead to migraines and headache problems.
3. The results of the research confirm common beliefs about the influence of weather changes.
4. Scientists have been able to explain how weather changes cause headaches.
5. Older people are more likely to suffer from migraines than younger people.
6. Weather changes have an impact on the economy.
7. Weather-related causes of migraines cannot be avoided.
8. The effects of weather changes cannot be treated.

5 Find the words

Find the words which mean:

1. period of time for which something continues to exist (*noun, subtitle*) _____
2. exists at the same time as something else (*verb, P1*) _____
3. support (*noun, P2*) _____
4. influence (*2 nouns, P3*) _____, _____
5. something that uses up too much money or time (*noun, P6*) _____
6. to make something happen quickly and suddenly (*verb, P8*) _____
7. apparently (*adverb, P8*) _____
8. expected to happen (*past participle, P9*) _____

6 Phrases in the text

Match the verbs on the left with the nouns on the right to form phrases from the text:

- | | |
|--------------|---------------------|
| 1. trigger | a. an attack |
| 2. seek | b. drugs |
| 3. provide | c. earlier research |
| 4. confirm | d. evidence |
| 5. identify | e. treatment |
| 6. prescribe | f. triggers |



7 Grammar - Modal verbs for possibility

Study the following examples from the text and complete the rules below with 'present', 'past' or 'future':

1. Headache sufferers have long suspected that changes in weather **can trigger** an attack.
 2. Scientists discover why a weekend warm spell **may have given** you a migraine.
 3. A rise in temperature or a fall in barometric pressure [...] **could trigger** a headache or migraine.
 4. The environment around us, in terms of headaches, **may be impacting** many, many people.
 5. Although weather-related triggers cannot be avoided, doctors **might be able to prescribe** drugs to prevent the effects.
- a. We use **can/may/might/could + infinitive** to say that an event in the _____ or _____ is possible.
 - b. We use **may/might/could + be + verb -ing** to say that a _____ activity in progress is possible.
 - c. We use **may/might/could + have + past participle** to say that something in the _____ is possible.

What are the negative forms of the above structures?

8 Grammar practice

Complete the following sentences with the appropriate form of the verb in brackets:

1. Jane didn't come to Alan's birthday party. She might _____ (have) a row with him.
2. In the future, doctors might _____ (be able to) treat difficult conditions such as hers.
3. It was bitterly cold this morning. He can't _____ (be) very warm in that light jacket he was wearing.
4. Sophie has an important exam tomorrow so she could _____ (study) for it right now.
5. I don't know why you decided to stay in last night. You might _____ (enjoy) the party.
6. Paul has just moved to Spain, but he refuses to learn the language. He can't _____ (make) many friends out there.
7. He can't _____ (be) at work yet. I saw him leave home only ten minutes ago.
8. We should call the box office before we go to the theatre. The tickets may _____ (already/be sold out).
9. I decided to go on a diet. I hope that with this new regime I can _____ (lose) at least five kilos.
10. Let me carry this heavy suitcase. You might _____ (hurt) your back.
11. Right now, the global financial crisis may _____ (affect) more companies worldwide than we think.
12. We waited for Anne at the airport, but she never showed up. She may _____ (miss) her flight.



9 Talking point

Do people tend to blame the weather for their state of health in your country? Do you think that weather changes have an impact on your country's economy? Why? Why not?



2 Key words

1. a 2. g 3. f 4. h 5. c 6. b 7. d 8. e

3 Find the information

1. 7,000
2. a rise in temperature in the previous 24 hours
3. 7.5 percent for every 5C rise in temperature
4. 18%
5. 6%
6. certain foods, alcohol, stress, hormones

4 Checking understanding

1. T 2. F 3. T 4. F 5. F 6. T 7. T 8. F

5 Find the words

- | | | | |
|----------|----------------|--------------|-------------------|
| 1. spell | 2. accompanies | 3. backing | 4. effect, impact |
| 5. drain | 6. precipitate | 7. seemingly | 8. forecast |

6 Phrases in the text

1. a 2. e 3. d 4. c 5. f 6. b

7 Grammar - Modal verbs for possibility

- a. present, future
- b. present
- c. past

can't/may not/might not/couldn't +

8 Grammar practice

- | | | |
|----------------|-------------------------------|-----------------|
| 1. have had | 2. be able to treat | 3. have been |
| 4. be studying | 5. have enjoyed | 6. be making |
| 7. be | 8. have already been sold out | 9. lose |
| 10. hurt | 11. be affecting | 12. have missed |

