

## Exercise in a pill: have scientists really found a drug that's as good for you as a 10km run?

### Level 1: Elementary / Pre-Intermediate

#### 1 Warmer

a. Discuss these questions.

1. Why is it good to do exercise and eat healthily?
2. Is it easy to do exercise often and always choose healthy food to eat? Why / why not?
3. What is the easiest way to stay healthy that you can imagine?

#### 2 Key words

a. Complete each definition with the correct word from the wordpool. Then find and highlight them in the article to read them in context.

benefit

mimic

physical effects

pill

produce

1. to grow or make something \_\_\_\_\_
2. a change or a reaction in the body \_\_\_\_\_
3. something that helps you \_\_\_\_\_
4. to have the same qualities as something else \_\_\_\_\_
5. a small piece of medicine that you swallow \_\_\_\_\_

appetite  
endurance

energy  
genes

psychological effect

6. parts of a cell that are passed on from a parent to a child \_\_\_\_\_
7. the ability to keep doing something difficult or painful for a long time \_\_\_\_\_
8. the feeling someone has when they want to eat food \_\_\_\_\_
9. a change or a reaction in the mind \_\_\_\_\_
10. the power to do work that comes from a source, e.g. food or drinks \_\_\_\_\_

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b. Complete the sentences with words from the previous activity. You might have to change the form of the word.

1. One of the \_\_\_\_\_ of exercise is that it makes your heart do more work.
2. You really need to develop your \_\_\_\_\_ if you want to run a marathon.
3. Your dad's \_\_\_\_\_ must be very strong. You look exactly like him!
4. That cake looks really good, but I don't have much of a(n) \_\_\_\_\_ today.
5. As an actor, he was famous for his impressions. He could \_\_\_\_\_ almost anyone.
6. Even walking for 30 minutes a day can have real \_\_\_\_\_ for your health.
7. We have a lot of work to do, so eat a good breakfast — you'll need the \_\_\_\_\_.
8. Feeling mentally relaxed is only one of the many \_\_\_\_\_ of being in nature.
9. The doctor told me to take two of these \_\_\_\_\_ for a week for my infection.
10. I work for a company that \_\_\_\_\_ films for TV and cinema.

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*Just how excited should we be about LaKe, the substance discovered by researchers at Denmark's Aarhus University?*

**Joel Snape**

**4 November 2024**

- 1 Can a pill really give you all the benefits of exercise? Aarhus University in Denmark has announced that a pill called LaKe "brings the body into a metabolic state similar to running 10 kilometres at high speed on an empty stomach".
- 2 Pills like LaKe mimic the physical effects of doing exercise. Although, this idea is not new. In 2008, San Diego's Salk Institute produced a pill called GW501516 (516 for short), which tells genes to burn fat and not sugar.
- 3 In tests, two mice (Lance Armstrong Mouse and Couch Potato Mouse) had the same diet high in fat and sugar and did the same exercise. However, Lance Armstrong Mouse also had 516. This improved the mouse's endurance and kept it much slimmer than Couch Potato Mouse.
- 4 LaKe is still in animal testing so possibly, it may not have the same effect on humans. What it seems to do is mimic two physical effects: it helps to produce lactate quickly, like after doing very strong exercise. It also makes more beta-hydroxybutyrate (BHB), which gives the body energy when it doesn't have enough glucose.
- 5 These two changes lower the level of fat in the blood and also lower appetite – which is the same as working out without eating. Also, early versions of 516 produced cancer cells but LaKe doesn't.
- 6 But no pill can do everything: exercise is a full-body experience, which improves how you feel. Even if pills can mimic all the physical effects, it would be difficult to create the psychological effect of running a 5k with friends.
- 7 We're still a long way from finding safe exercise pills that can produce all of the physical and psychological benefits of exercise. When they exist, they'll probably be best for old or sick people. One day, perhaps we might take pills instead of doing exercise, but right now, it's much easier to go for a run.

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#### 3 Comprehension check

a. Are these sentences True (T) or False (F) according to the article? Correct any that are false.

1. LaKe puts the body in a state like someone running 10 kilometres very quickly after eating.
2. 516 tells cells in the body to stop burning sugar and start burning fat.
3. Lance Armstrong Mouse was less fat than Couch Potato Mouse and ran for longer.
4. LaKe works by reducing feelings of wanting to eat food and producing more energy.
5. 516 and LaKe do not produce any physical problems.
6. Pills can produce the same effects as going for a long run with a group of friends.

#### 4 Key language

a. Read the sentences from the text and answer the questions.

- a. 'Pills like LaKe mimic the physical effects of doing exercise. **Although**, this idea is not new'.
- b. 'Two mice (Lance Armstrong Mouse and Couch Potato Mouse) had the same diet high in fat and sugar and did the same exercise. **However**, Lance Armstrong Mouse also had 516'.
- c. 'We might take pills instead of doing exercise, **but** now, it's much easier to go for a run'.

1. Do the words in bold connect ideas that are the same or ideas that are different?
2. Which word(s) go at the start of a sentence?
3. Which word(s) go in the middle of a sentence?

b. Complete the sentences using the words in bold from task a.

1. It is cold in the mornings, \_\_\_\_\_ I still like to go for a run.
2. \_\_\_\_\_ she doesn't like fruit, she always buys fruit for her family.
3. It can be difficult to find the time to do exercise. \_\_\_\_\_, going two or three times a week can be enough to stay healthy.
4. \_\_\_\_\_ these pills are expensive, they work much better than the other ones.

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5. I loved ice skating as a child, \_\_\_\_\_ I never go on the ice now.
6. She has a diet that is high in fat and sugar. \_\_\_\_\_, she feels healthy and does a lot of exercise.

### 5 Discussion

a. Discuss these statements.

- 'Pills like LaKe are the best way for people to stay healthy'.
- 'Companies should spend as much money as possible to make pills like LaKe'.

### 6 In your own words

- a. In pairs or small groups, list the good things and the bad things about pills like LaKe.
- b. Present your ideas to the class. Use words to connect ideas that are different.