BBC LEARNING ENGLISH Media English 媒体英语 The secret behind body clock 人体生物钟之谜



人体内有一个独特的生物钟,来适应地球的昼夜变换。它在一天之中的不同时段,对我们的生理功能进行着非常精准的调节,这个生物钟到底是如何工作的? 2017 年诺贝尔生物学奖获得者们通过分离基因,为我们揭示了到底是什么样的机制使得细胞内的生物钟持续工作。请听报道。

We spend around a third of our lives like this.

Sleeping at night and being active during the day is **second nature**. That's because we're **at the mercy of** the **constant** ticking of clocks inside nearly every cell of our bodies. Our mood, strength, **hormone** levels, body temperature, **metabolism** and even the risk of a heart attack all fluctuate in a daily **rhythm**.

This clock is not controlled by **cogs** and **pendulums**. Instead, it's the swing in gene activity over 24 hours that keeps our body's time. The US's **trio** Jeffrey Hall, Michael Rosbash and Michael Young found the genes involved.

Dr Michael Hastings, a **circadian rhythm** scientist in Cambridge, said it took the discovery for the field to be treated seriously.

Nobody now doubts the importance of our body clocks. Ask someone who is **jet lagged** or working shifts what it's like to live **out of sync** with your internal clock.

Long-term circadian rhythm disruption is linked to a host of diseases, from cancer to type 2 diabetes, but understanding how the body's timepiece works is also unlocking new ideas, like taking medicines at the time of day when they will have the biggest impact on the body.

词汇表

second nature	第二天性; 习性
at the mercy of	任凭的摆布,完全受的支配
constant	连续不断的
hormone	荷尔蒙,激素
metabolism	新陈代谢
rhythm	(人的生物)节奏,规律
cogs	(齿轮的)嵌齿
pendulums	钟摆
trio	三人组
circadian rhythm	昼夜生理节律
jet lagged	有时差感的
out of sync	不同步的

测验

请听报道并回答下列问题。

- 1. True or false: the strength of emotions, hormone levels, body temperature, metabolism and even the risk of a heart attack all fluctuate in a daily rhythm.
- 2. What keeps our body's time?
- 3. What can the long-term disruption of circadian rhythms cause?
- 4. Which word in the text means "watch or clock"?

答案

1. True or false: the strength of emotions, hormone levels, body temperature, metabolism and even the risk of a heart attack all fluctuate in a daily rhythm.

True. According to the report, mood strength, hormone levels, body temperature, metabolism and even the risk of a heart attack all fluctuate in a daily rhythm.

- 2. What keeps our body's time? It's the swing in gene activity over 24 hours that keeps our body's time.
- 3. What can the long-term disruption of circadian rhythms cause? Long term circadian rhythm disruption is linked to a host of diseases, from cancer to type 2 diabetes.
- 4. Which word in the text means "watch or clock"? **Timepiece**.