

- ◎ **True/False/Not Given**判断题

- ◎ 1.题目需要精确读懂。

- ◎ （例： **A single injection can provide permanent protection.** ）

- ◎ 2.题型内部答案多数顺序

- ◎ 3.考语言+逻辑

- ◎ **T**—原文和题目大意相同（褒贬一致，方向、趋势一致）
- ◎ **F**—原文中有看得见的和题目的冲突
- ◎ **NG**—没有定位点或原文中没有证据证明题目的正误

## ◎ 猜答案

- ◎ （题目中有并列举例的写**T**）
- ◎ （题目违反常理的写**F**）
- ◎ （有绝对词汇的——**only, all, every, very** 写**F**）
- ◎ （题目中将两者相联系——**NG**）
- ◎ （剩余写**T**）

- ◎ **Matching**配对题

- ◎ 1. 题型内部多数乱序。

- ◎ 2. 用题目中的重点辅助定位，不可用备选项定位。

## ◎ **Flow chart**流程图

- ◎ 1.一般出现在科普类的文章，定位容易
- ◎ 2.填空所在的那一步如果没有名词可定位的时候，可用上一步或下一步中的名词定位
- ◎ 3.题型内部答案按顺序给出

◎ 剑六Test 3 READING PASSAGE 3

**The Search for the Anti-aging Pill**

*In government laboratories and elsewhere, scientists are seeking a drug able to prolong life and youthful vigor. Studies of caloric restriction are showing the way*

- As researchers on aging noted recently, no treatment on the market today has been proved to slow human aging - the build-up of molecular and cellular damage that increased vulnerability to infirmity as we grow older. But one intervention, consumption of a low-calorie\* yet nutritionally prolonging good health. Those findings suggest that caloric restriction could delay aging and increase longevity in humans, too.
- Unfortunately, for maximum benefit people would probably have to reduce their caloric intake by roughly thirty per cent, equivalent to dropping from 2500 calories a day to 17050. Few mortals could stick to that harsh a regimen, especially for years on end. But what

- if someone could create a pill that mimicked the physiological effects of eating less without actually forcing people to eat less? Could such a 'caloric-restriction mimetic', as we call it, enable people to stay healthy longer, postponing age-related disorders (such as diabetes, arteriosclerosis, heart disease and cancer) until very late in life? Scientists first posed this question in the mid-1900s, after restriction's benefits. No compound that would safely achieve the same feat in people has been found yet, but the research has been informative and has fanned hope that caloric-restriction (CR) mimetics can indeed be developed eventually.



- ◎ The benefit of caloric restriction

- ◎ The hunt for CR mimetics grew out of a desire to better understand caloric restriction's many effects in the body. Scientists first recognized the value of the practice more than 60 years ago, when they found that rats fed a low-calorie diet lived longer on average than free-feeding rats and also had a reduced incidence of conditions that become increasingly common in old age. What is more, some of the treated animals survived longer than the oldest-living animals in the control group, which means that the maximum lifespan (the oldest

attainable age), not merely increase a population's average survival time, but only approaches that slow the body's rate of aging will increase the maximum lifespan.

- The rat findings have been replicated many times and extended to creatures ranging from yeast to fruit flies, worms, fish, spiders, mice and hamsters. Until fairly recently, the studies were limited to short-lived creatures genetically distant from humans. But caloric-restriction projects underway in two species more closely related to humans -rhesus and squirrel monkeys - have made scientists optimistic that CR mimetics could help people.

- The monkey projects demonstrate that, compared with control animals that eat normally, caloric-restricted monkeys have lower body temperatures and levels of the pancreatic hormone insulin, and they retain more youthful levels of certain hormones that tend to fall with age.
- The caloric-restricted animals also look better on indicators of risk for age-related diseases. For example, they have lower blood pressure and triglyceride levels (signifying a decreased likelihood of heart disease), and they have more normal blood glucose levels (pointing to a reduced risk for diabetes, which is marked by

- unusually high blood glucose levels). Further, it has recently been shown that rhesus monkeys kept on caloric-restricted diets for an extended time (merely 15 years) have less chronic disease. They and the other monkeys must be followed still lifespans in monkeys. Unlike the multitude of elixirs being touted as the latest anti-aging cure, CR mimetics would alter fundamental processes that underlie aging. We aim to develop compounds that fool cells into activating maintenance and repair.

- ◎ How a prototype caloric-restriction mimetic works
- ◎ The best-studied candidate for a caloric-restriction mimetic, 2DG (2-deoxy-D-glucose), works by interfering with the way cells process glucose. It has proved toxic at some doses in animals and so cannot be used in humans. But it has demonstrated that chemicals can replicated the effects of caloric restriction; the trick is finding the right one.

- Cells use the glucose from food to generate ATP (adenosine triphosphate), the molecule that powers many activities in the body. By limiting food intake, caloric restriction minimizes the amount of glucose entering cells and decreases ATP generation. When 2DG is administered to animals that eat normally, glucose reaches cells in abundance but the drug prevents most of it from being processed and thus reduces ATP syntheses. Researchers have proposed several explanations for why interruption of glucose processing and ATP production might retard aging. One possibility relates to the ATP-making machinery's emission of free

radicals, which are thought to contribute to aging and to such age-related diseases as cancer by damaging cells. Reduced operation of the machinery should limit their production and thereby constrain the damage. Another hypothesis suggests that decreased processing of glucose could indicate to cells that food is scarce (even if it isn't) and induce them to shift into an anti-aging mode that emphasizes preservation of the organism over such 'luxuries' as growth and reproduction.

- ⦿ ***Question 28-32***
- ⦿ Do the following statements agree with the views of the writer in Reading Passage 3?
- ⦿ *In boxes 28-32 on your answer sheet, write*
- ⦿ ***YES***     *if the statement agrees with the views of the writer*
- ⦿ ***NO***     *if the statement contradicts the views of the writer*
- ⦿ ***NOT GIVEN***     *if it is impossible to say what the writer thinks about this*



- ◎ **28** Studies show drugs available today can delay the process of growing old.
- ◎ **29** There is scientific evidence that eating fewer calories may extend human life.
- ◎ **30** Not many people are likely to find a caloric-restricted diet attractive.
- ◎ **31** Diet-related diseases are common in older people.
- ◎ **32** In experiments, rats who ate what they want led shorter lives than rats on a low-calorie diet.

- ⦿ ***Question 33-37***

- ⦿ *Classify the following descriptions as relating to*

- ⦿ ***A*** *caloric-restricted monkeys*

- ⦿ ***B*** *control monkeys*

- ⦿ ***C*** *neither caloric-restricted monkeys nor control monkeys*

- ⦿ *Write the correct letter, **A**, **B** or **C**, in boxes 33-37 on your answer sheet.*
- ⦿ **33** Monkeys were less likely to become diabetic.
- ⦿ **34** Monkeys experienced more chronic disease.
- ⦿ **35** Monkeys have been shown to experience a longer than average lifespan.
- ⦿ **36** Monkeys enjoyed a reduced chance of heart disease.
- ⦿ **37** Monkeys produced greater quantities of insulin.

- ◎ ***Question 38-40***
- ◎ Choose ***NO MORE THAN TWO WORDS*** from the passage for each answer. Write your answer in boxes 38-40 on your answer sheet.

## How a caloric-restriction mimetic works

