

Directions: In this section, you are going to read a passage with ten statements attached to it. Each statement contains information given in one of the paragraphs. Identify the paragraph from which the information is derived. You may choose a paragraph more than once. Each paragraph is marked with a letter. Answer the questions by marking the corresponding letter on **Answer Sheet 2**.

Exercise and Dementia

- A) If this doesn't encourage you to squeeze in a workout today, nothing will: a new study from Sweden shows that women who were highly fit in mid-life were nearly 90% less likely to get dementia(失智) decades later.
- B) After initial exercise tests in middle age, researchers followed the women for 44 years. Both groups lived just as long, but those who could ride an exercise bike at a fast rate for 6 minutes in the initial test had a much lower risk of dementia later on than those who couldn't complete the workout.
- C) The study, published Wednesday in the journal *Neurology*, couldn't prove that exercise prevented dementia, and the findings aren't a surprise—it's long been known there's a correlation between exercise and decreased dementia risk—but the results were particularly dramatic. About 5% of the women with the highest peak workload—those who were able to bike the hardest over those 6 minutes—developed dementia, compared to 25% of those with medium fitness and 45% who weren't fit enough to finish the test, the study found. Overall, women who were highly fit compared to those who were moderately fit decreased their risk of dementia by 88%. The few highly fit women who did develop dementia became symptomatic at age 90 on average, 11 years later than the moderately fit.
- D) "I'm very surprised that the finding was so strong," said Ingmar Skoog, the paper's senior author and a psychiatry(精神病学) professor at The University of Gothenburg in Sweden. "It really shows the importance of exercise."
- E) Dementia, as defined in medical dictionaries, is a broad term that describes a loss of thinking ability, memory, attention, logical reasoning, and other mental abilities. These changes are severe enough to interfere with social or occupational functioning. Dementia isn't a disease. Instead, it's a group of symptoms caused by other conditions. It happens when the parts of your brain used for learning, memory, decision making, and language are damaged or diseased. About 5%-8% of adults over age 65 have some form of dementia. This percentage doubles every 5 years after 65. As many as half of people in their 80s have some form of dementia.
- F) Dementia is not temporary confusion or forgetfulness that might result from an infection that heals without treatment. It can also come from an underlying(潜在的) illness or side effects of medications. Dementia typically gets worse over time. People with dementia have problems with thinking and remembering that affect their ability to manage their daily life.
- G) Dementia is typically associated with declines in cognitive function. Yet researchers have found an association between dementia and declines in hearing and other basic sensory functions.
- H) Though the study mentioned above was fairly small (only 191 women took the initial fitness test, which means it's hard to maintain statistical significance while breaking the group down into sub-categories of more

or less fit), it does give us hope that dementia can be prevented or delayed through exercise in one's middle age.

- I) Alzheimer's(阿尔茨海默症) and other dementias are believed to begin 15-20 years before symptoms even appear, so it makes sense that exercising in mid-life would affect the risk, Skoog said. Exercise alone is not likely to prevent Alzheimer's, but the study shows people are not helpless in the face of one of the most feared, costliest and common diseases of old age, he added. And the same activities that help prevent Alzheimer's—including avoiding smoking, getting adequate exercise and sleep and eating a healthy diet—also prevent heart disease, he said, making them even more worthwhile. "You can do something yourself to decrease your odds," Skoog said.
- J) Maintaining a healthy lifestyle in mid-life, decades before disease sets in, makes sense, said David Knopman, a fellow of the American Academy of Neurology, who was not involved in the study. "I suspect it's a dose," said Knopman, also associate director of the Alzheimer's Disease Research Center at Mayo Clinic in Rochester, Minnesota. "Starting in late life is better than not starting at all, but starting in mid-life seems to offer a larger benefit."
- K) Although it is not entirely clear why exercise helps put off or prevent Alzheimer's, Knopman said it's likely that exercise maintains good blood flow to the brain. "When the brain is healthier from a vascular(血管的) point of view, it can absorb more Alzheimer's pathogen(病原体) before people become symptomatic," he said.
- L) The message isn't that everyone needs to run marathons in middle age, Knopman said, but a healthy lifestyle pays off.
- M) This type of study can't say exactly what kind of exercise is best, or how much is needed—only a study that has a placebo(安慰剂) group and tracks people going forward can do that, said Keith Fargo, director of scientific programs and outreach at the non-profit Alzheimer's Association. "The literature has not yet settled on an amount or type of exercise that is going to be key, although the bulk of literature has suggested that aerobic(有氧的) exercise is what you need to be doing," he said. That doesn't mean you have to compete in marathons but "more than a 10-min dog walk" would be a good idea, Fargo said.
- N) Several lifestyle studies are getting underway soon, including one backed by the Alzheimer's Association called the US POINTER study, which will offer at-risk adults, ages 60-79, a series of lifestyle interventions(干预) to see if they impact Alzheimer's risk. That and other Alzheimer's-related studies are always looking for volunteers to participate, he said.
- O) In the next three to five years, these studies should allow researchers to provide clearer recommendations for exercise and other lifestyle modifications that might reduce Alzheimer's risk, such as sleep, diet and social activities, Fargo said. But it's already quite clear that exercising at any point in life is better for your brain than not exercising at all, Fargo added.
- P) "If you don't want to have dementia when you're 80, the time to start getting fit is now," he said. "It may not necessarily give you a longer life, but there's a compelling body of work that it will give you more good years."

36. It is typical for dementia to worsen with the passage of time.

37. According to Knopman, the study gives the message that a healthy lifestyle is beneficial, but not that all the middle-aged need heavy exercise.

38. The results of a new study will encourage middle-aged women to find time exercising however busy they are.
39. Hopefully, one can postpone or prevent dementia by exercising in their mid-life.
40. In a few years, researchers should be able to offer clearer advice on exercise and other lifestyle changes for reducing the incidence of Alzheimer's.
41. Dementia refers to a loss of multiple mental abilities such as memory and logical reasoning.
42. One researcher believes that exercise may keep the brain well supplied with blood.
43. Medical literature has not concluded as to what exercise or how much exercise is crucial, although it generally agrees that people should do aerobic exercise.
44. It has long been common knowledge that exercise correlates with reduced risk of dementia.
45. Activities helpful in the prevention of Alzheimer's also prevent heart disease.