

Directions: *There are 2 passages in this section. Each passage is followed by some questions or unfinished statements. For each of them there are four choices marked A), B), C) and D). You should decide on the best choice and mark the corresponding letter on **Answer Sheet 2** with a single line through the centre.*

Passage One

Questions 46 to 50 are based on the following passage.

All living organisms on Earth are exposed to a 24-hour day-night cycle. This cycle is the reason why people rest at night and are active during the day. Consequently, all human body functions also follow this daily rhythm, and the timing of behaviors like exercise or food intake can significantly influence your health. For example, eating at night can lead to weight gain over time because food intake at night leads to increased fat storage.

Many drug targets in the body follow a 24-hour cycle, too. This means that the specific proteins a drug is designed to modify can react differently to the medicine over the course of a 24-hour time period. Because how the body responds to a drug can differ depending on the time it is taken, it logically follows that taking medicines at specific times could help increase their effectiveness and reduce unwanted side effects.

When doctors prescribe medicine for people, they rarely consider the best time to take it. There are two main reasons for that oversight. First, many physicians are not aware that some drugs work better during a specific time of the day. And second, most drugs have not been studied for possible different effects during a 24-hour cycle. Therefore, patients are directed to take most drugs during the morning or evening primarily to ensure compliance.

Over 50 years ago, researchers found that the cholesterol drug simvastatin is more effective at lowering cholesterol levels when taken at night rather than during the day. This is because the liver enzyme(酶) these drugs target is more active at night.

Taking medicine at the wrong time can even cause harm. My colleagues and I wondered whether midazolam, the most common sedative(镇静剂) used in surgical procedures worldwide, might interfere with the internal clock that protects the heart at night. Currently, there are no guidelines regarding when midazolam should be administered.

More research is needed to determine the best times to administer treatments for different diseases. I believe taking drug timing into account could help make treatments more effective and help more people worldwide.

46. What do we learn from the passage about the timing of our behaviors?

- A) It has a considerable impact on our health.
- B) It confines us to a 24-hour day-night cycle.
- C) It requires us to follow a particular rhythm.
- D) It holds the key to all human body functions.

47. What does the author say about the proteins in our body?
- A) They can modify the effects of medicines in different ways.
 - B) They can reduce unwanted side effects of certain medicines.
 - C) Their reaction to medicines changes during the day-night cycle.
 - D) Their design determines how differently they react to medicines.
48. What do doctors do when prescribing medicine for people?
- A) They give little thought to the time of taking it for maximum effect.
 - B) They rarely consider which medicine works better for which patient.
 - C) They tell patients its possible side effects during a period of 24 hours.
 - D) They tell patients to comply with the directions of drug manufacturers.
49. Why do doctors advise patients to take most drugs in the morning or in the evening?
- A) To discourage them from making complaints.
 - B) To ensure they take the drugs as instructed.
 - C) To comply with new research findings strictly.
 - D) To guarantee the maximum effect of the drugs.
50. What does the author suggest near the end of the passage?
- A) Considering drug-taking timing when prescribing drugs for patients.
 - B) Making treatments less complex by taking drug timing into account.
 - C) Conducting more studies to find out the best timing for treating different diseases.
 - D) Finding out the most effective drugs for treating diseases through further research.