

Write your answer A/B/C in the box provided:

Questions 8 to 14 are based on the following passage.

- 1 There are many compelling reasons to get up out of your desk chair and stand more at work. Most of us sit more than we should, and a majority of our sitting time occurs at work, since many modern professions are sedentary. Many of us spend six or seven hours tied to our desks each day. These long, uninterrupted periods of physical lethargy have been linked with increased risks for diabetes, heart disease, premature mortality and, not least, weight gain. 5
- 2 In response, many people, have begun to look for ways to break up our sitting time. We download smart phone apps that chirp and tell us to stand up several times every hour. Health-minded supervisors organise walking meetings, in which employees discuss business while hoofing along hallways. 10
- 3 Recent studies indicate that measures that get us off our seats can help us better regulate blood sugar and lessen the risks for diabetes and chronic disease. But more to the point, many of us are rising from our chairs in the hopes that sitting less will help keep our waistlines and nether quarters from spreading.
- 4 Surprisingly few studies, however, have closely tracked how many additional calories we burn if we stand up or walk around our offices. So for the new experiment, researchers at the University of Pittsburgh rounded up 74 healthy volunteers. Most were in their mid-20s, of normal weight, and with some acquaintance with office life. 15
- 5 These volunteers were randomly assigned to four different groups. One group was asked to sit and type at a computer for 15 minutes and then stand up for 15 minutes, moving around and fidgeting as little as possible. 20
- 6 Another group also sat for 15 minutes, but watched a television screen and did not type. Afterward, they immediately moved to a treadmill and walked for 15 minutes at a gentle, strolling pace. 25
- 7 The third group stood up for 15 minutes and then sat down for 15 minutes.
- 8 And the final group walked on the treadmills for 15 minutes and then sat.
- 9 Throughout, the volunteers wore masks that precisely measured their energy expenditure, which means how many calories they were using.
- 10 Unsurprisingly, sitting was not very taxing. The volunteers generally burned about 20 calories during their 15 minutes of sitting, whether they were typing or staring at a television screen. 30
- 11 More unexpected, standing up was barely more demanding. While standing for 15 minutes, the volunteers burned about two additional calories compared to when they sat down. It did not matter whether they stood up and then sat down or sat down and then stood up. The total caloric expenditure was about the same and was not sizable. 35
- 12 Overall, in fact, the researchers concluded, someone who stood up while working instead of sitting would burn about eight or nine extra calories per hour. Just for comparison, a single cup of coffee with cream and sugar contains around 50 calories. 40

- 13 But walking was a different matter. When the volunteers walked for 15 minutes, even at a fairly easy pace, they burned about three times as many calories as when they sat or stood. If they walked for an hour, the researchers calculated, they would incinerate about 130 more calories than if they stayed in their chairs or stood up at their desks. 45
- 14 The upshot of this experiment is that if your goal is to control your weight at work, then “standing up may not be enough,” said the lead author of the new study. You probably need to also incorporate walking into your office routine. Maybe “put the printer at the other end of the hallway, or get up to walk to the water fountain every hour or so” instead of keeping a water bottle at your desk. “Brief periods of walking can add up to make a big difference” in energy expenditure, he said, while standing barely budes your caloric burn. 50
- 15 Standing up almost certainly has other health benefits apart from weight management, better blood sugar control and less back and shoulder pain associated with hunching in a chair all day. So do not abandon your stand-up desk just yet. 55

(Adapted from *The New York Times*, 2016)

- 8 The nature of work for modern professionals leads to weight gain.
A True
B False
C Not stated
- 9 Walking during meetings is more effective than being reminded by smart phones to exercise.
A True
B False
C Not stated
- 10 The study on physical activity was conducted on 74 workers of the University of Pittsburgh.
A True
B False
C Not stated
- 11 The method used in the study involved four groups of participants sitting, standing and walking
A at regular intervals
B at different intensity
C in different combinations
- 12 Just for comparison (line 40).
Why did the writer mention this?
A To show how difficult it is to burn calories
B To show that coffee with cream and sugar is a high calorie drink
C To show that drinking coffee is common among working professionals

- 13** The findings of the study showed that
- A** standing only burned two calories
 - B** you need to walk 15 minutes a day
 - C** walking burned three times more calories than standing
- 14** The main point of the last paragraph is standing while at work
- A** can help us lose weight
 - B** can bring health benefits
 - C** reduces back and shoulder pain