

IELTS PRACTICE TASK

Are germs bad?

*Scientists know that bacteria make humans sick,
but research suggests some bacteria may also keep people alive.*

A

The bacterium *Helicobacter pylori* (*H. pylori*) is able to live – indeed, thrive – inside the human stomach, which makes it relatively rare because the stomach is so acidic as to be an extremely hostile environment for most bacteria. *H. pylori* is shaped like a corkscrew and is three microns long – to give a sense of scale, a grain of sand is about three hundred microns long. Research has shown that over 50% of the world's population is infected by *H. pylori*, making it the most common infection of its kind among human beings. However, it would be a mistake to assume from its diminutive proportions or the fact that it occurs so frequently that the bacteria is a benign presence in the human body.

B

In the 1980s doctors realised that antibiotic medications could free the body of the bacterium and thus cure various illnesses including gastritis and stomach ulcers. At the time there was complete consensus among scientists that *H. pylori* did nothing but harm and all steps should be taken to eradicate it. One of those at the forefront of the research was Martin Blaser, professor of microbiology at New York University School of Medicine. Professor Blaser still remembers how certain the academic community was in those days about *H. pylori*. 'It was bad for us, so the idea was to get it out of our bodies, as fast as we can. I don't know of anyone who said, "We'd better think about the consequences."'

C

Professor Blaser's laboratory was ahead of the field and developed the original blood analysis techniques to identify the bacterium, and most of them are commonly in use today. But Professor Blaser has a mind that engages with a number of different intellectual activities; for example, in addition to his medical work, he helped to set up an important magazine of literary criticism in the United States. And perhaps it was this diversity of perspective that first caused him to wonder about *H. pylori*. In particular, he was curious to know how a bacterium that was as old as humans could survive in the human body if its only role was negative. As a result, Professor Blaser began to examine fresh aspects of the bacterium, such as its molecular make up and behaviour.

TASK TYPE 5 Matching Information

D

In 1998 Professor Blaser's findings appeared in the British Medical Journal. On the basis of extensive research into the subject, the paper concluded that, despite the prevailing consensus to the contrary, *H. pylori* might actually help promote human health, such as by regulating the level of acidity in the stomach. He pointed to the fact that, while the incidence of *H. pylori* is decreasing thanks to the widespread use of antibiotics, some diseases are actually becoming more common. Professor Blaser hypothesised that the bacterium occurs quite naturally in the human stomach and that the changes to the stomach's composition caused by its removal over recent decades account for today's increasing rates of diabetes, obesity and asthma. This is certainly an area of medical research worth watching over the years ahead.

Questions 1–7

The Reading Passage has four paragraphs, **A–D**.

Which paragraph contains the following information?

Write the correct letter, **A–D**, next to each question.

NB You may use any letter more than once.

- 1 some details of the first test to determine the presence of *H. pylori*
- 2 some details of a pioneering academic publication
- 3 the suggestion that one man's range of interests led to a new approach
- 4 a warning about underestimating the importance of *H. pylori*
- 5 an example of a medical benefit attributed to the presence of *H. pylori*
- 6 a comparison between *H. pylori* and a natural substance familiar to most people
- 7 examples of some medical problems caused by *H. pylori* being present