READING PASSAGE 2

# The Pill That Does Nothing

*How much of the placebo's reputed power survives a closer look*

**A** A placebo is, by definition, a treatment that does nothing: a sugar pill, an injection of saline, a sham procedure, given to a patient as though it were a genuine remedy. And yet patients who receive one often get better. From this simple observation has grown one of the most appealing ideas in modern medicine — that belief alone can heal, and that the mind, suitably persuaded, can mend the body. The placebo effect, as the phenomenon is called, has been invoked to explain everything from apparent miracle cures to the rituals of alternative therapy. The reality, as careful study has gradually revealed, is both more limited and more interesting than the legend allows.

**B** The notion of a powerful placebo owes much to a single influential paper. In 1955 the American anaesthetist Henry Beecher surveyed a number of studies and concluded that, on average, about a third of patients improved when given a dummy treatment. The figure was widely repeated and rapidly hardened into received wisdom. If an inert pill could help one patient in three, the placebo was no mere absence of treatment but a force in its own right — and one that every trial of a new drug would henceforth have to reckon with, since a medicine now had to prove itself better not against nothing but against this surprisingly potent rival.

**C** There was, however, a flaw in the reasoning, and it lay in a confusion between sequence and cause. That a patient improves after taking a placebo does not establish that the placebo brought the improvement about. Many illnesses simply run their course and get better on their own — the natural history of the complaint. Others fluctuate; and since people tend to seek help when their symptoms are at their worst, any subsequent change is likely to be for the better, as the symptoms drift back towards their usual level — a tendency known as regression to the mean. Add the mere passage of time, and a great deal of apparent improvement turns out to have nothing to do with any treatment at all. To measure what a placebo genuinely contributes, it is not enough to watch a group that has taken one get better; that group must be compared against another given no treatment whatever.

**D** This is precisely the comparison that, for decades, was seldom made. In 2001 two researchers set out to make it, gathering the trials that had included both a placebo group and an untreated group and asking whether the placebo groups had really fared the better. For most measures, the difference was small or absent. Where placebos did seem to make a difference was in subjective outcomes — symptoms that patients report for themselves, and above all pain — rather than in objective ones that can be measured from outside. A placebo did not shrink a tumour, mend a broken bone or clear an infection. The powerful placebo of legend shrank, under scrutiny, to something far more modest: a genuine but narrow influence, felt mainly in how patients say they feel.

**E** Modest, however, is not the same as imaginary, and the effect on subjective symptoms appears to be real. Expectation and past experience shape how the brain interprets the signals reaching it from the body, and pain — being as much a construction of the brain as a message from the injured part — is especially open to such influence. Strikingly, the pain relief a placebo provides can be partly undone by a drug that blocks the body's own natural painkillers, which shows that

genuine physiological machinery is engaged, and not merely a wish to please the doctor. The placebo response, where it occurs, is something the nervous system actually does.

**F** Two further findings have complicated the picture. The first concerns deception. It had long been assumed that a placebo could work only if the patient was fooled into thinking it real; yet in some conditions, patients told frankly that they were being given an inert pill have nonetheless reported improvement — which suggests that the ritual of being treated may matter as much as any belief in the pill itself. The second is the placebo's shadow, the so-called nocebo effect, in which negative expectation produces real symptoms: patients warned of a possible side effect prove more likely to suffer it, even when what they have taken is inert. This carries a practical edge, for it means that the very act of informing a patient can, in some measure, bring about the harm it describes.

**G** What survives, then, is a chastened version of the original idea. The placebo effect is real, but it is not the wonder of popular belief: it acts chiefly on how patients feel rather than on the diseases that afflict them, it is easily exaggerated whenever improvement is measured without a proper comparison, and it travels with a darker twin in the nocebo. The episode carries two lessons. One is about evidence — how readily a simple before-and-after can be mistaken for proof of cause. The other is about medicine itself: that the manner in which care is delivered, and the expectations it raises, are not incidental to treatment but a working part of it.

### True / False / Not Given

*Questions 1–5. Do the following statements agree with the information given in Reading Passage 2? Tick (✓) one box for each statement.*

**1** A placebo contains no active medical ingredient.

TRUE | FALSE | NOT GIVEN

**2** Beecher's 1955 paper concluded that placebos almost never have any effect.

TRUE | FALSE | NOT GIVEN

**3** Any improvement seen after a placebo is given must have been caused by the placebo.

TRUE | FALSE | NOT GIVEN

**4** The 2001 review found placebos to be more effective than standard drugs in treating pain.

TRUE | FALSE | NOT GIVEN

**5** A drug that blocks the body's natural painkillers can reduce the pain relief a placebo produces.

TRUE | FALSE | NOT GIVEN

### Multiple Choice

*Questions 6–9. Choose the correct letter, A, B, C or D.*

**6** According to paragraph C, why might an improvement following a placebo not be caused by it?

**A** Because patients often forget that they were given a placebo.

**B** Because many illnesses improve on their own and symptoms drift back towards their usual level.

**C** Because placebos in fact contain small amounts of active drug.

**D** Because doctors tend to overstate how far their patients have recovered.

**7** What did the 2001 review conclude about where placebos do appear to help?

**A** With objective outcomes, such as clearing infections.

**B** With subjective, self-reported outcomes, above all pain.

**C** With every kind of medical condition more or less equally.

**D** With none of the conditions that were examined.

**8** What does the effect of the painkiller-blocking drug suggest about placebo pain relief?

**A** That it is purely a matter of imagination.

**B** That it depends entirely on the patient deceiving the doctor.

**C** That it involves genuine physiological processes in the body.

**D** That it works only for objective outcomes.

**9** Why is the nocebo effect described as having a practical edge?

**A** Because it proves that placebos cannot really work.

**B** Because negative expectations can produce real symptoms, which bears on how patients are informed.

**C** Because it shows that open-label placebos are ineffective.

**D** Because it can cure conditions that ordinary placebos cannot.

### Sentence Completion

*Questions 10–11. Complete the sentences below. Choose NO MORE THAN TWO WORDS from the passage for each answer.*

**10** To measure a placebo’s true contribution, its group must be compared with one that has been given _____.

**11** When negative expectation produces real symptoms, this is known as the _____ effect.

### Matching Information

*Questions 12–14. The reading passage has seven paragraphs, A–G. Which paragraph contains the following information? Write the correct letter, A–G.*

**12** A set of factors, such as the natural course of an illness, that can be mistaken for a placebo’s effect. A B C D E F G

**13** An example showing that a placebo openly identified as such can still bring improvement. A B C D E F G

**14** The claim that first established the idea of the placebo as a powerful force. A B C D E F G

# Answer Key

*For teacher / self-study use. Fold or detach before distributing to students.*

| Q | Answer | Para | Explanation |
|---|---|---|---|
| **1** | **TRUE** | A | A placebo is “a treatment that does nothing” — a sugar pill or saline given as though it were genuine. |
| **2** | **FALSE** | B | Beecher concluded the opposite — that about a third of patients improved on a dummy treatment. |
| **3** | **FALSE** | C | Improvement after a placebo “does not establish that the placebo brought the improvement about”; natural history and regression to the mean may be responsible. |
| **4** | **NOT GIVEN** | D | The review compared placebo with *no treatment*, not with active drugs; no claim is made that placebos beat standard medicines. (A comparison trap.) |
| **5** | **TRUE** | E | Placebo pain relief can be partly undone by a drug that blocks the body’s natural painkillers. |
| **6** | **B** | C | Illnesses run their course and symptoms regress to the mean; A, C and D are not the reasons given. |
| **7** | **B** | D | Placebos helped mainly with subjective outcomes, above all pain — not objective ones (A). |
| **8** | **C** | E | Real physiological machinery is engaged — not mere imagination (A) or a wish to please (B). |
| **9** | **B** | F | Informing a patient of a side effect can itself help bring it about — relevant to how patients are told. |
| **10** | **no treatment** | C | “compared against another given no treatment whatever”. |
| **11** | **nocebo** | F | “the so-called nocebo effect”. |
| **12** | **C** | C | Natural history, regression to the mean and the passage of time. |
| **13** | **F** | F | Patients told openly that a pill was inert still reported improvement. |
| **14** | **B** | B | Beecher’s 1955 “one in three” figure established the powerful-placebo idea. |

### Approximate IELTS Band Equivalence (14 questions)

| Score | 14 | 13 | 12 | 11 | 10–9 | 8–7 | 6–5 | ≤4 |
|---|---|---|---|---|---|---|---|---|
| **Band** | 9.0 | 8.5 | 8.0 | 7.5 | 7.0–6.5 | 6.0–5.5 | 5.0 | <5.0 |