

The POWER of visualization

Read the article. Match the summaries (1–5) with the paragraphs (A–E).

- 1 Visualizing the process rather than the success is probably the most effective approach.
- 2 Imagining performing an athletic activity without ever doing it can affect the parts of the body you visualize using.
- 3 Visualization can't create things that don't exist.
- 4 For athletes, visualising both the process of competition and a successful outcome improves performance.
- 5 Some people believe that visualization can be used to improve physical health.



Answer the questions.

- 1 According to the weightlifting research, what is the most effective way to use visualization?
- 2 What measurable benefit did experimental test subjects gain simply by visualizing themselves exercising?
- 3 What was Dr Taylor's explanation for the results of her experiment?
- 4 How does the golfers' use of visualization differ from what successful students do?
- 5 Whose view is more supported by the information in the other parts of the article: Dr Angell's or Dr Siegel's?

A Wouldn't it be great if you could lie in your bed and think about exercising and get some of the benefits of an actual workout? It sounds too good to be true, but researchers in the USA have discovered a stronger mind-body link than was previously realized: in experiments, the patterns of brain activity in weightlifters were the same when they lifted weights as when they only imagined lifting weights. According to the journal *Frontiers in Human Neuroscience*, other research shows that, in some cases, mental practice is almost as good for developing skills as physical practice, and that doing both together gives better results than doing either one alone. One experiment compared people who worked out at the gym and people who visualized workouts in their heads and found that people who put their mind to visualizing the repetition of certain muscle actions – without actually doing the physical actions – experienced a 13.5 per cent increase in muscle mass in the areas they'd imagined exercising. Your imagination may be more powerful than you thought.

B Psychologist Shelley Taylor, Ph.D., of the University of California conducted an experiment on a class of students who were preparing for an exam. She divided the group into two and got one group to use visualization to concentrate on the great feeling of getting a high mark on a test. The second group, by contrast, were instructed to picture themselves in the library, reviewing their notes and studying their textbooks to prepare for the test, keeping their minds focused on the process rather than on the eventual feelings of success. Who performed better? The second group, the one that imagined themselves doing the work necessary to succeed. Taylor's view is that visualization works as a 'mental rehearsal' of the actions needed to perform well when the time comes. (If you're a student, you should definitely bear this technique in mind!)

C This idea is supported by the typical use of visualization by athletes. Tiger Woods, one of the world's greatest golfers, has been using mental images to help him since he was a boy. He says that before each shot, he sees in his mind's eye exactly where he wants the ball to go. And judging by his game, the technique is highly effective. A generation before Woods, top golfer Jack Nicklaus used the same process to anticipate exactly how the shot would be played – also to great success. And it isn't just golf; more and more Olympic athletes from all over the world use the power of imagination in this way – often visualizing their competitions in great detail. 'The more an athlete can image the entire package, the better it's going to be', says sports psychologist Nicole Detling.

D Though many people have claimed to have cured themselves of serious diseases through the power of visualization and positive thinking, the medical profession appears to be in two minds about it. Dr Marcia Angell, a senior lecturer in social medicine at Harvard Medical School and a visualization sceptic says, 'There's tremendous arrogance to imagine that your mind is all that powerful.' On the other hand, Dr Bernie Siegel, a retired clinical assistant professor of surgery at Yale Medical School and author of a book called *Love, Medicine & Miracles* believes that visualization can improve the function of the human body in the same way that it has been shown to improve athletic performance. Siegel says, 'When you imagine something, your body really feels like it's happening.'

E Visualization is powerful, but it has its limits. As the comic actor Jim Carrey is supposed to have said, visualizing eating a sandwich when you're hungry isn't going to satisfy you. Our imagination may be an extremely useful tool, but it is most useful when used alongside genuine ability and actual effort and sometimes there's no substitute for the real thing.