

Common myths about the brain

We only use ten per cent of our brain.

We don't just use 10% of our brain, we use all of it. This myth may have started because nine-tenths of the cells in the brain are so-called glial cells. These are support cells that provide help for the other, for the neurons, the grey matter, that does the thinking.

Right-brainers are more creative and emotional. Left-brainers are logical and like facts.

There is no left-brain or right-brain personality type. This myth may have started because we know that the right and left sides of the brain do specialise in different tasks. However, no research has found that the size of the right or left sides of the brain have an impact on personality.

It's all downhill after 40 (or 50 or 60 or 70).

It's true, some mental skills do decline as you get older. Children are better at learning new languages than adults. Young adults are faster than older adults to judge whether two objects are the same or different, and they are faster to count backward by sevens. But plenty of mental skills improve with age. Vocabulary, for instance, older people know more words. They also score higher on tests of social wisdom, such as how to settle a conflict.

Listening to Mozart improves memory and concentration.

Listening to certain music can improve memory and concentration but there's nothing unique about Mozart. Although Mozart was a genius, there is no evidence that listening to his music will make you one too.

People with bigger brains are cleverer.

The size of the brain does not relate to intelligence. Elephant brains are three times heavier than human ones, and whale brains can weigh up to seven times as much. This does not make them cleverer! The human brain has the most brain cells (neurons) of any animal. Albert Einstein's brain was an average size, even if his genius was not.