



For years video games have been criticised for making people more antisocial, overweight or depressed. But now researchers are finding that games can actually change us for the better and improve both our body and mind.

Games can help to develop physical skills. Pre-school children who played interactive games such as the ones available on Wii have been shown to have improved motor skills, for example they can kick, catch and throw a ball better than children who don't play video games. A study of surgeons who do microsurgery in Boston found that those who played video games were 27 per cent faster and made 37 per cent fewer errors than those who didn't. Vision is also improved, particularly telling the difference between shades of grey. This is useful for driving at night, piloting a plane or reading X-rays.

Games also benefit a variety of brain functions, including decision-making. People who play action-based games make decisions 25 per cent faster than others and are no less accurate, according to one study. It was also found that the best gamers can make choices and act on them up to six times a second, four times faster than most people. In another study by researchers from the University of Rochester in New York, experienced gamers were shown to be able to pay attention to more than six things at once without getting confused, compared with the four that most people can normally keep in mind. Additionally, video games can also reduce gender differences. Scientists have found that women who play games are better able to mentally manipulate 3D objects.

There is also evidence that gaming can help with psychological problems. At the University of Auckland in New Zealand, researchers asked 94 young people diagnosed with depression to play a 3D fantasy game called SPARX and in many cases, the game reduced symptoms of depression more than conventional treatment. Another research team at Oxford University found that playing Tetris shortly after exposure to something very upsetting – in the experiment, a film of traumatic scenes of injury and death was used – can actually prevent people having disturbing flashbacks.

The effects are not always so positive, however. Indiana University researchers carried out brain scans on young men and found evidence that violent games can alter brain function after as little as a week of play, affecting regions in the brain associated with emotional control and causing more aggressive behaviour in the player. But Daphne Bavelier, one of the most experienced researchers in the field, says that the violent action games that often worry parents most may actually have the strongest beneficial effect on the brain. In the future, we may see many treatments for physical and neurological problems which incorporate the playing of video games.

