

DAY 48

BRAIN HEALTH AND TECHNOLOGY

We live in the digital age but some people say that too much use of technology will have a negative effect on our psychology and mental abilities. According to them, if school children use, for example, calculators instead of working out a sum in their head, they will not be able to understand basic arithmetic. Similarly, adults will become too lazy to check their spelling if they can rely on a spell-check program. In other words, if computers do the work for people, they may not learn to think for themselves. However, a number of research studies have shown that technology does not necessarily limit mental abilities. It seems that it can, in fact, actually have a positive impact on them.

The brain is extremely important when it comes to being healthy and living well. Exercise makes more blood flow to the brain, so it is one of the simplest ways to get the brain working better. It also improves the chemicals which protect **nerves* from damage. However, exercise must be energetic enough to be effective. People can use technology like heart monitors to check that they are exercising at the right level. Another way to use technology to make exercise more effective is to use devices with a GPS (Global Positioning System). This allows people to know, for example, how great a distance they have run and to plan future runs in their area.

Music is known to have a positive impact on feelings of happiness and well-being. In addition, there is a theory, called the Mozart Effect, that listening to classical music makes a person cleverer. Experiments have indeed shown that listening to music has improved language ability in patients with certain illnesses. Electronic devices now make it possible to listen to music on public transport, at work, while exercising or at any other time during the day. So this is another way in which digital devices may be making people's mental abilities stronger.

Changes in diet can also help to improve brain function. Omega-3 fats, for instance, are good for the brain and provide important support to the **nervous system*.

Similarly, research shows that having coconut oil in the diet is especially helpful for the brain and can help improve memory. Vitamin D is also good as it improves nerve growth in the brain. Technology provides a quick and easy way for people to check what nutrients there are in specific foods. Having this information easily available on a smartphone app is very convenient when shoppers are selecting food. They can choose products based on accurate information rather than just guessing what a particular food contains.

Many people use their electronic devices to help them stay in contact with others. And having a network of social relationships is also important in keeping the brain working well. Research shows this to be a key factor in keeping older people happy. Social media sites, texting and video calls all make staying in touch with one another so much easier than it used to be, even if they live on different continents. Moreover, the internet means it is possible for people who share the same interests to make contact with each other.

Another way for people to improve their brain function is by exercising it with challenging mental tasks. Psychologists have shown that learning new things actually changes the size and structure of brain **neurons* and develops more connections between them. Smartphones, tablets and computers make it very easy for people to have access to information and tasks that are both fun and stimulating. For instance, the internet offers all sorts of amazing opportunities for study. Research has shown that surfing the web increases activity in the parts of the brain used for decision-making.

To sum up, despite frequent criticisms of the impact of technology on people today, electronic devices can have a very positive impact on brain health and mental powers. They can help people exercise, listen to music, diet, stay in contact with friends and find mental challenges. All these activities play a very valuable role in improving not only health and happiness but also mental ability.

** nerves: parts inside the body which carry messages between the brain and other parts of the body*

** nervous system: all the nerves in the body that make moving, feeling pain, feeling heat, etc. possible*

** neuron: a cell (= the smallest living part of a plant or animal) that sends and receives messages to and from the brain*

Questions 1-5

Look at the following features and types of technology below. Match each feature with the type of technology that has that feature.

Features

1. can accompany other activities
2. means that distance is no longer a problem
3. helps record achievements
4. helps make everyday decisions
5. informs when something is too much or too little

Types of technology

- A technology related to exercise
- B technology related to music
- C technology related to diet
- D technology related to social networking
- E technology related to mental challenge

Questions 6-10

Complete the sentences below. Choose **ONE WORD ONLY** from the passage for each answer.

6. Elderly people with several good _____ are happier than those without any.
7. Being on a different _____ is not a problem for communication these days.
8. People with similar _____ can get to know each other on the web.
9. Being mentally active can increase the number of _____ that brain neurons create.
10. Taking advantage of online options for _____ can help challenge the mind.