The Mozart Effect and epilepsy

It has been reported that listening to music may improve how well the brain works. This may be a helpful treatment for some people with a brain condition, including epilepsy.\(^1\) The piece of music which has been most studied is Mozart's Sonata for two pianos in D Major, K448 (also known as Mozart K448). This theory has been called the Mozart Effect.

The term Mozart Effect was first used in 1993, by a group of researchers.\(^2\) They studied what happened to a group of students, after they had listened to Mozart K448 for 10 minutes. The researchers noticed that for about 10 to 15 minutes after listening to the music, they had better 'spatial-reasoning skills'.\(^3\) This means they performed better in certain tasks they were given, which included paper cutting and folding.

Since then, various researchers have carried out studies to look at how listening to Mozart K448 may affect people with epilepsy. Below is information about four of these studies.

1. In 1998, researchers asked 29 people with epilepsy to listen to Mozart K448 while having an EEG (electroencephalogram) test. The people who were chosen had shown lots of epileptic activity in part or all of their brain during previous EEG tests. For 23 people who took this test, the EEG test showed less epileptic activity in their brain while they were listening to the music.\(^4\)

Find out more about EEG tests.

2. In 2011 researchers studied 58 Taiwanese children, some with focal epilepsy and some with generalised epilepsy. The children had EEG tests before, during and after listening to Mozart K448. They found that 47 of the children had reduced epileptic activity while listening to the music, and that in most this decrease continued after the music ended.\(^5\)

Find out more about focal seizures and generalised seizures.

3. Also in Taiwan in 2011, 11 children with refractory (difficult to control) epilepsy were studied. Most of the children had learning difficulties. The number of seizures they had in six months was counted. After this, they listened to Mozart K448, once a day before bed time, for six months. During this time, their seizures were counted again. Of the 11 children, eight

became seizure free, or had a high reduction in their seizures, in the months they listened to the music.\textsuperscript{6}

\textbf{4.} A recent study in the US of 73 adults and children with refractory epilepsy looked at the effect of playing music during sleep. One group was exposed to Mozart K448 during sleeping hours over a period of a year. The other group was not exposed to music. In the group exposed to Mozart K448, 80 per cent had a reduction in seizures and 24 per cent became seizure free during the treatment period. This was compared to the group who were not exposed to music, where just 36 per cent had a reduction in seizures.\textsuperscript{7}

So far most research has focused on Mozart’s K448, though a recent study using another Mozart sonata, K545, has also shown similar effects.\textsuperscript{8}

In summary, there have been a few, small studies carried out, looking at the effects of listening to particular pieces of Mozart’s music. Some people believe that the results look promising and that listening to Mozart should be considered as an extra treatment for some people with epilepsy. However, other people believe that there is still not enough evidence, understanding or proof to show that this could be helpful.

If you wish to buy Mozart K448, the link below will take you to the relevant page on Amazon.co.uk. Buying through this link will raise money for Epilepsy Action at no extra cost to yourself.

- **Mozart’s Sonata for Two Pianos in D Major K448**

By giving you this link, we are not suggesting that the Mozart Effect will work for you.

**About this information**

This information is written by Epilepsy Action’s advice and information team, with guidance and input from people living with epilepsy and medical experts. If you would like to know where our information is from, or there is anything you would like to say about the information, please contact us at epilepsy.org.uk/feedback

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