

Memory and epilepsy



It is common for people living with epilepsy to have memory problems which may arise for many reasons.

Keeping your brain alert and active is good, however on its own may not necessarily be enough to improve memory.



Memory and epilepsy in the later years

Memory is one of the most important functions of our brain. For most people, as we age, lapses in our memory become more common. This can be frustrating and can affect daily life. People with epilepsy are at a higher risk of developing memory problems due to abnormalities in the frontal lobe of the brain.

There are two types of memories – short-term and long-term.

Short-term memory is used to process information which needs to be remembered for just a short time after first experiencing something. An example of this is when reading a sentence, our short-term memory allows us to remember what we read at the start of the sentence when we reach the end of the sentence. We need to use our short-term memory to complete particular tasks e.g. calculating how many hours until we need to prepare dinner or playing a game, when this information is no longer needed it is discarded by our brain.

Long-term memory is information that is stored for a long period of time. This information may include things like where our childhood home was, what we did last year or even what we did a few hours ago. It can be very distressing for people when they cannot remember their past. This can be a recurring problem for people living with epilepsy, and can be even more frequent and increasingly distressing for people in their later years.

What does this mean for the older person?

There are three phases to the memory process.

The first phase relates to learning. To be able to remember something new we must first pay attention and learn the new information. Having epilepsy can impact a person's ability to pay attention over a period of time and may slow the speed of information processing. For some people with epilepsy processing new information can be overwhelming which can restrict their ability to maintain attention for long enough to commit the matter to memory. Important facts may be missed and memory is affected because the information is not being properly received.

The second phase is storage of information in the brain. For some people with epilepsy they may have difficulty in consolidating new information. Epilepsy can cause structural problems in parts of the brain responsible for memory and the storage of these memories.

The third phase is retrieval or recall. This is the brain's way of finding and using the information that has been learnt. There are a number of factors which can make it difficult to recall information such as time pressure, being put on the spot or being asked to recall information out of context. Often, later in the day when the pressure is off, the information may be remembered more easily. It is difficult to remember information in isolation but when given further information the memory may more easily be recalled.

There are a number of ways that people with epilepsy can develop memory problems. These include:

- **Seizures** – Seizures are believed to affect the storage of memory in people with epilepsy. Having seizures over a long period of time can negatively affect memory functions.
- **Anti-epileptic drugs** – Anti-epileptic drugs (AEDs) have a number of side effects, one of them can be a negative impact on people's cognitive functioning. The impact of AEDs on attention and memory is common although some people on lower doses of AEDs find that taking the medication
- **Surgery** – Some people experience increased memory difficulties after epilepsy surgery. It has been found that the risk of this can, in most cases, be identified by a specialist
- **Anxiety and depression** – Our mood can impact on our ability to attend to, learn and recall information. When we feel anxious or depressed it is harder to focus on information which, in turn, makes it harder to remember information.
- **Stress and fatigue** – When we feel stressed or tired we place more demands on our minds which can affect our ability to retain and recall information. Keeping a healthy sleep and exercise routine is important for people with epilepsy as this helps manage stress and fatigue levels.

What can you do to help?

- Encourage the older person to write lists for tasks e.g. shopping lists.
- Put up reminder note boards or calendars.
- Label cupboards and drawers to assist with remembering what is inside them.
- Keep a regular routine for people you are supporting.
- Arrange the environment so that important items are easily visible and kept in the same locations.
- Use dosette boxes or dose administration aids (DDA) packaged by the pharmacy in either a unit dose or a multi-dose pack for medications.
- Encourage the older person to do mental exercises and challenge the brain.

Where to go for further information

Epilepsy New Zealand

<http://epilepsy.org.nz/>

Epilepsy Society UK

www.epilepsysociety.org.uk

Search: Memory



National Support Centre

Epilepsy House, 6 Vialou Street, Hamilton
Central, Hamilton 3204
PO Box 1074, Hamilton 3240
Phone: 07 834 3556
Email: national@epilepsy.org.nz

This information sheet is part of a suite of resources that are targeted to aged care workers and carers of older people, to assist with caring for older people living with epilepsy.

The information contained in this publication provides general information about epilepsy. It does not provide specific advice. Specific health and medical advice should always be obtained from an appropriately qualified health professional.