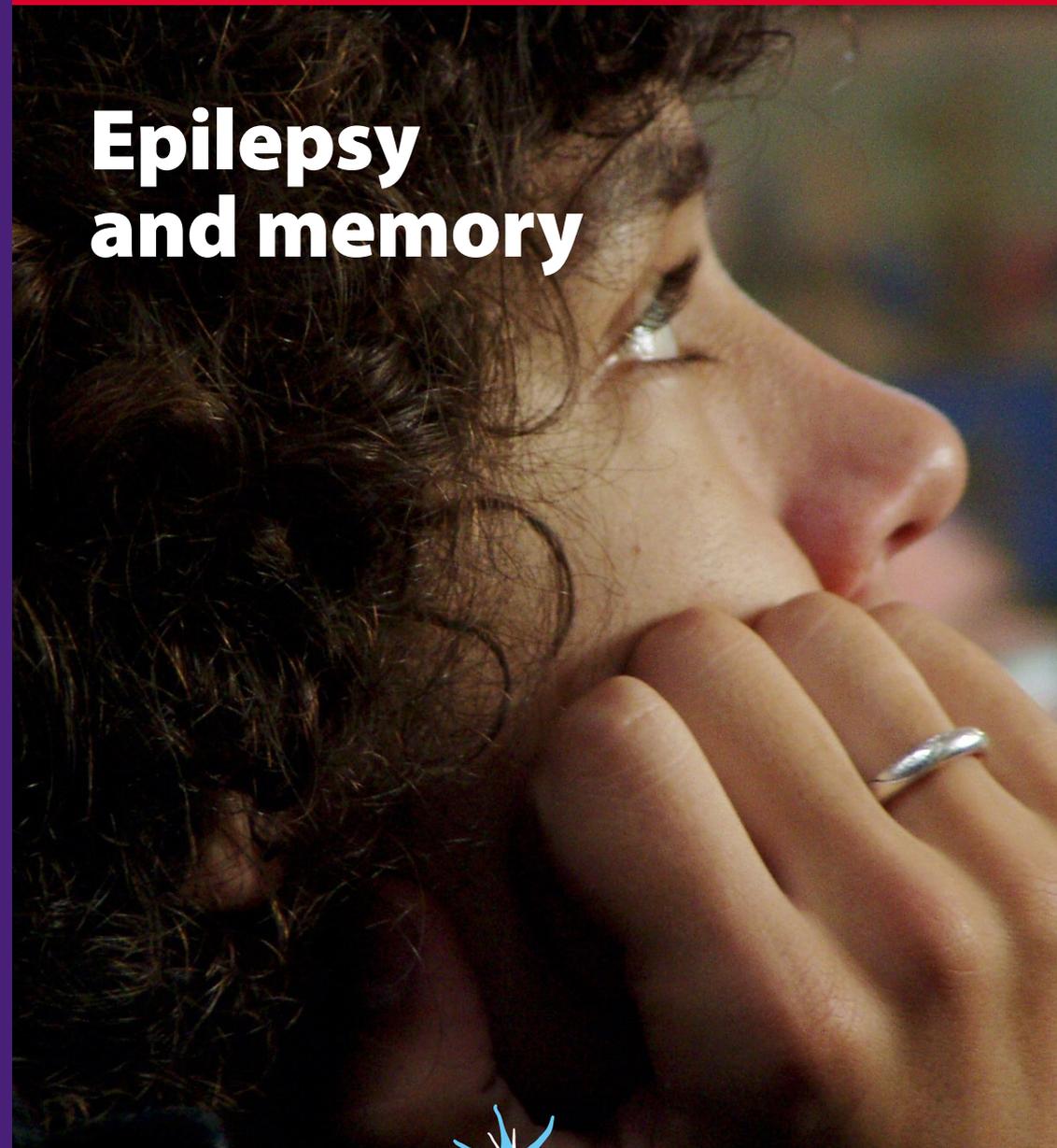


# Epilepsy and memory



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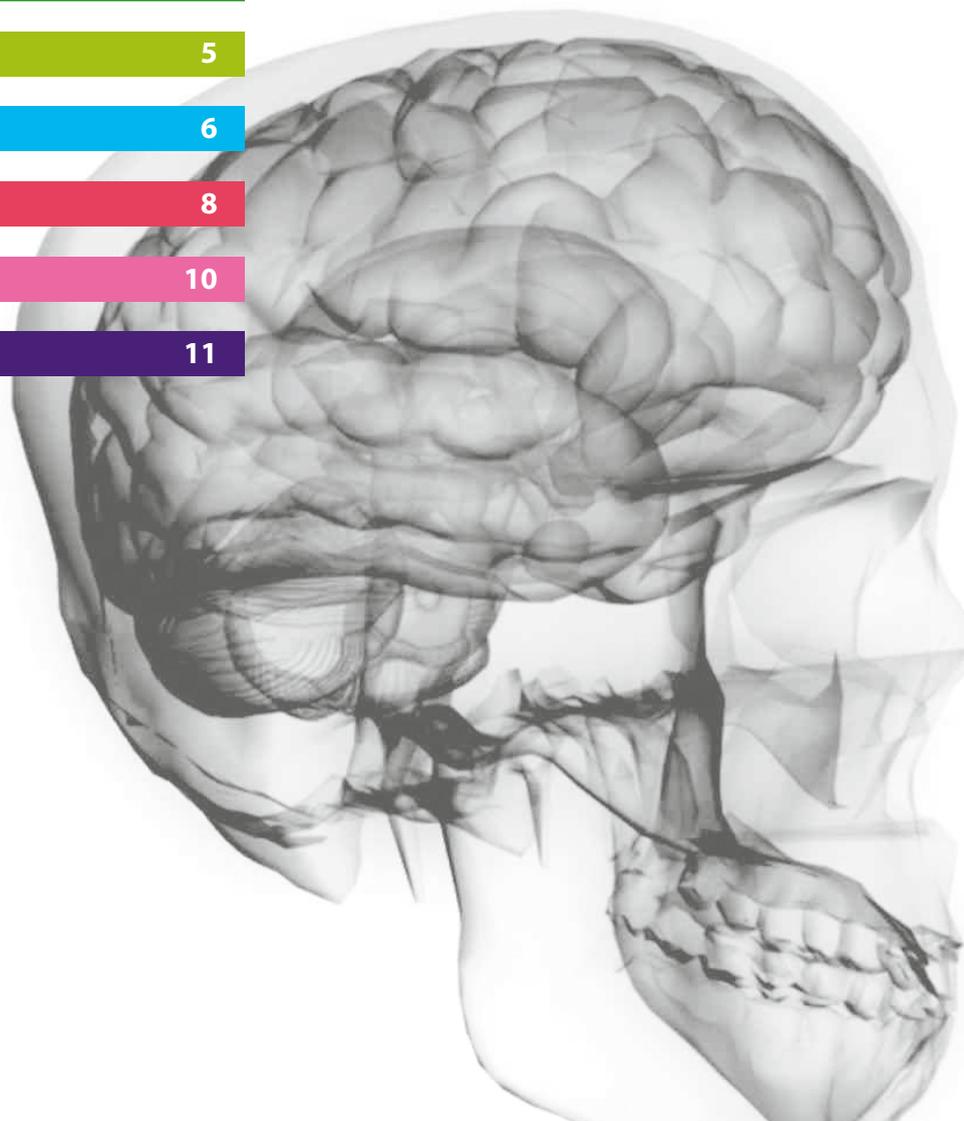


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This guide explains why people with epilepsy can have memory problems. This leaflet explains why. It also gives some ideas for improving memory.

Epilepsy is one of the most common serious neurological conditions. People with epilepsy have repeated seizures. Most seizures will stop with the right medication. People can have one seizure and not have epilepsy. The reason could be a high temperature or a head injury.

Seizures usually last a short time. The brain works normally between seizures. Billions of brain cells pass messages to each other and these control what we say and do. A seizure can happen if the brain's electrical activity is disrupted and these messages get mixed up.



# Memory

We all forget things like people's names and where we have left our keys. When this happens we can feel frustrated. Our memory holds so much information it is not surprising it can sometimes let us down. Our memory lets us recall events, people and places and all the facts we know. We use it to store and remember everything we have learned and experienced.

Our memory has two parts; our short term memory and long term memory.

## Short term memory (STM)

We use this memory to remember information for a short time, a few seconds or minutes. It is then forgotten. Often we remember for long enough to carry out a task, for example, buying today's groceries.



## Long term memory (LTM)

We use this type of memory to store and hold details for a long time. We can usually find these memories as we need them. For example, when we are first given our bank card security number we have to learn it and use it before it stays in our long term memory. Each time we need to withdraw money, our memory gives us the card number.

Information we want to store usually needs to be practiced or linked to something we already know. It then passes from our short term memory to our long term memory. This process of repeating information is called encoding or learning.

When we want to remember something we find it in our short or long term memory. Information passes daily between these two memory stores.

# Memory problems

Memory problems happen for different reasons. There are three stages to memory: learning, storing and finding the memory. Mistakes can take place at any of these stages causing us to forget. We may have problems with certain types of memory, such as those listed in the table below.

## Different ways to remember

We use different ways to help us remember. We have to be able to memorise faces, facts, dates and places we've been and how to do things.

The most common types of memory we use are:

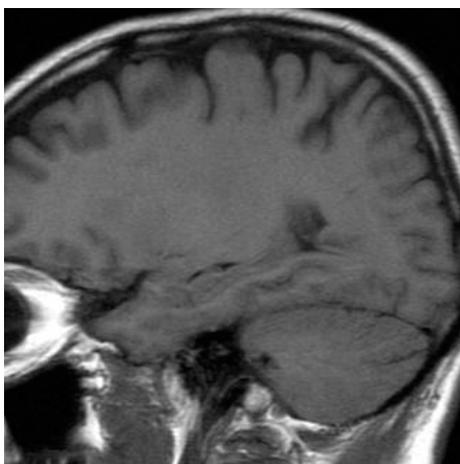
| Memory            | Use   | Example   |
|-------------------|---|---|
| Short term memory | this is our working memory. It holds information for a short time | remembering a new person's name during the first conversation |
| Long term memory  | this is our memory bank   | remembering our address                                       |
| Visual memory     | this is the memory we use to recognise faces and objects          | recognising our friends and family                            |
| Verbal memory     | this is the memory we use for spoken words                        | remembering the words of songs                                |
| Procedural memory | this is the memory we use to do something                         | riding a bike, washing dishes                                 |
| Semantic memory   | this is the memory we use to remember facts                       | remembering capital cities                                    |
| Episodic memory   | this is the memory we use for events in our life                  | remembering events from our childhood                         |

# Memory and epilepsy

People with epilepsy often have memory difficulties. This can be for many reasons:

## Cause of epilepsy

Some people have a cause for their epilepsy. This can be due to damage to the brain from a head injury or infection. If part of the brain that deals with memory is damaged this could lead to some memory loss. People with temporal lobe epilepsy often have memory problems. This is because the temporal lobe is where we learn new memories.



## Seizures

A person's memory can be affected before, during and after a seizure. Changes in the brain before a seizure can mean information is not processed well enough to pass to our long term memory. Awareness can also be affected during a seizure. This means people have little or no recollection of what has happened. Even between seizures a person's memory may be affected. This is because brain activity may be disrupted even though it is not enough to lead to a seizure.

## Epilepsy medication

Many people worry that the medication they take for their epilepsy causes poor memory. The side effects of some medication (for example poor concentration and drowsiness) can affect remembering. However, your memory will be improved if the drugs stop or lower the number of seizures you have.

If you feel your medication affects your memory speak to your GP, nurse or epilepsy specialist.

**Do not stop your epilepsy medication without medical advice.**

## Mood

How we feel can affect our concentration and attention, which can then affect our memory. Research shows that people with epilepsy are more likely to be depressed or anxious. If our brains are overloaded by these feelings we can become distracted and unable to focus on information. In turn this will affect our memory.

## Lack of sleep

People with epilepsy need to have enough sleep because lack of sleep can be a trigger for seizures. When you are well-rested your memory improves. This is because tiredness makes people less able to concentrate, learn and store new information.

## Surgery

Some people with epilepsy have surgery to try and stop seizures. Sometimes people have memory problems as a result of the surgery.



# Improving memory

Some people have general memory problems. Others have a particular difficulty such as remembering names or how to get somewhere. People with epilepsy will have extra information to remember, like taking tablets, noting seizure triggers and medical appointments.

If you know you are forgetful, there are many things you can do to help you remember. Your family and friends may also be able to remind you.

Try these tips to help your memory:

## Focus on one thing at a time

It helps to do one thing at a time. Try to focus. If you are not paying close attention to a task or to new information you may not remember it later. Develop daily routines and try to be as organised as possible. This will help you to plan the things you want to do.

## Don't overload your memory

Mistakes are more likely if your memory has to deal with many things all at once. If there is too much information, your brain may become overloaded. You can then forget things.

## Record information

It helps to write things down. Keep a diary and calendar of events. Write down any tasks that you need to do.

## Staying active

Keep your mind active by doing things you enjoy. This could be anything from crosswords and sudoku to playing computer games. Physical exercise like walking can also help.



## Looking after yourself

Stress can affect epilepsy as well as memory. Speak to your GP or nurse about relaxation tips. Try to relieve stress where you can. Call our Helpline on 0808 800 2200 to find out about different ways to manage your epilepsy.

## Extra help

Ask your local pharmacist about having your tablets delivered. Health aids include tablet dispensers and repeat prescription cards. Memory aids are helpful. These include diaries, calendars, notepads, post-it notes, digital voice recorders, talking clocks and mobile phone alarms.



Once you know where you have problems with your memory you can work on ways to improve this.

## If you often forget names:

### Do

- focus when you are first learning the name
- say the name out loud in conversation
- try to link the name to someone or something you know. This could be another person you know with the same name
- use an image to help you remember, for example, try to picture grey hair and a ham sandwich to remind you that your new neighbour is called Graham
- think back to the first time you met. What was the memory link you made?

### Don't

- worry or panic. You can chat to someone without saying their name
- feel bad saying you have forgotten. Most people find it hard to remember names

## If you are forgetful:

### Do

- use back up methods like a diary and calendar
- check your diary and plan your day with set routines eg taking your tablets with breakfast
- leave your calendar, notes and reminders in places where you will see them
- ask friends and family to remind you of important dates
- set your mobile phone, computer, or a talking clock to remind you of appointments. This is good if you are doing an activity different to your usual routine
- think about using the first letter of words or words that rhyme (mnemonics) to help your memory. For example, if you need to buy bacon, apples and tomatoes you could use the word BAT as a reminder

- plan your journey if you have difficulty finding places. Try to remember landmarks on the way there. This can be easier than memorising a map.

### Don't

- worry or panic if you forget the way. You can ask someone for directions
- put things off. Write them down as soon as you remember

## If you often lose things:

### Do

- make it a habit to put important objects like your keys or money in the same place each day
- focus on the task as you put your belongings away
- use labels on drawers and cupboards to remind you where things are kept

All of us can learn new ways to improve our memory. It helps to have set routines. Think over any information you need to remember. It takes time to form new routines. Don't get frustrated if it takes longer than you'd like. Our memory holds huge amounts of information. For this reason we should not be too hard on ourselves when we forget.

People with epilepsy can often worry that they will lose their memory completely and develop dementia. This is rarely the case. Speak to your GP if you are worried about your memory. Ask to see a memory specialist. Call our Helpline on 0808 800 2200 to talk over any concerns you have. You can also find out about local epilepsy support groups where you can share your experiences.