

Don't Forget! – Memory Issues and Epilepsy

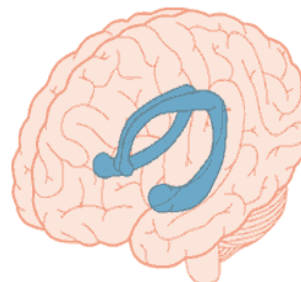
May, 2009

It happens to many of us. You meet someone, exchange names, converse, and by the following week you've forgotten their name! Memory loss is also common among people with epilepsy. One study reported difficulties with memory in 77.4% of patients and half believe that seizures interfere with their memory. Some of the most common memory complaints included remembering phone numbers, conversations, names, and words.

But what is memory exactly? Quite simply, memory is the process of recovering past events or knowledge. There are four stages of memory. The first stage is immediate memory where information is held for less than a second. This stage involves understanding what your senses experience. Immediate memory can then be transferred into short term memory which may be stored for a short period of time. An example of short term memory is the ability to hold on to the digits of a phone number in the short time between hearing them and dialing the number.

Long term memory is combined as permanent information, such as remembering a birthday gift you received two years ago. Short term memory can become long term by repeating the information or visualizing it. Long term memory has no maximum capacity. Finally, remote memory is stored information from previous years and can last for decades. Remote memory allows us to reminisce on childhood memories, and events from several years ago.

Memory is not lost but can be forgotten. There are a few factors that affect memory in epilepsy such as the type of seizure, how often you have seizures, and your mood and emotions. Seizure medications can also affect the memories of people with epilepsy.



www.BrainConnection.com
©1999 Scientific Learning Corporation

The shaded area in this brain diagram is an illustration of the hippocampus, where short-term memory is stored.

When you have a seizure, it blocks your memory, sometimes not allowing you to recall anything that occurred during the seizure or that you even experienced one. This is why it is important to identify seizure triggers, and reduce other potential factors such as stress, lack of sleep, and alcohol consumption.

Here are some tips on how to improve your memory:

- Ignore what is not relevant so you can focus.
- Eliminate distractions such as the television, noise, or other conversations.
- Rehearse and repeat what you are trying to remember.
- Write things down so that you do not have to remember them.
- Use rhymes and acronyms (abbreviations).
- Attempt to “re-live” the setting.
- Create a visual image of yourself at that time.
- Use pill dispensers, alarms, calendars, and organizers.

Be sure to consult your Epileptologist with any memory concerns.

Special points of interest:

Memory and Epilepsy
Doc Chat: Epilepsy Surgery

Doc Chat: Dr. Nitin Sethi on Epilepsy Surgery



Dr. Nitin Sethi
Assistant Professor of Neurology
Comprehensive Epilepsy Center
NYPH/WCMC

Usually when one talks about epilepsy and its treatment, one thinks about medications. You are right, most patients with epilepsy should have their seizures controlled by anti-epileptic drugs. However there are a few patients who have what we call medically refractory epilepsy, that is they have seizures which are refractory to anti-epileptic drugs (even if you use multiple drugs their seizures remain uncontrolled). Usually these are the patients whom we consider for epilepsy surgery.

So what is epilepsy surgery and what does it involve? In simple terms, we first try to map the seizures coming from the brain. By mapping I mean, we try to determine where exactly in the brain the seizures originate from (that is the seizure focus). Once we determine the seizure focus and are reasonably sure that all the seizures come from that focus only, then we open up the skull and the neurosurgeon resects that focus out (that part of the brain from which the seizures arise, once you remove the focus, the patient ideally should become seizure free and may be even able to come off his seizure medications).

While this procedure sounds simple, it is actually more complicated than explained above. A patient must meet some criteria. First and foremost, we should be able to identify the seizure focus and be reasonably sure that all the seizures come from that very focus only. Usually the patient is admitted for video-EEG study. The patient is hooked to the EEG monitor and we record the seizures. From this we are able to localize the seizure focus. At times though, the seizure focus cannot be identified for sure from the surface. In that case we do what is called intracranial monitoring. It is similar to the EEG except here we open up the skull and place the recording electrodes right on the surface of the brain itself.

Once we have localized the seizure focus, your surgeon and neurologist will discuss memory and speech issues. If necessary, you would be given a WADA test. This test helps us in determining the memory and speech localization in the brain. Your doctor may also order additional tests again to aid in localizing the seizure focus. Some of these tests include special scans like the PET (positron emission tomography) and SPECT (single photon emission computed tomography) scans

MYTH...

A person having a seizure can swallow their tongue.

FACT...

Holding the tongue down or putting something in their mouth can actually block the airways and / or hurt the person's teeth or jaw.

Comprehensive Epilepsy Center
NYPH/ WCMC

525 E. 68th Street, K-619
New York, NY 10021
Phone: 212-746-2625
Fax: 212-746-8684

We're on the web!
www.cornellepilepsy.org