

# Enhancing seizure control

**Better quality of life with epilepsy is possible by understanding the condition and a management regimen that involves not only the individual, but their family, friends and healthcare team.**



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Having a seizure for the first time is frequently a frightening, confronting and potentially harmful event for the person and also for witnesses.

There are many steps in the process leading up to a diagnosis of epilepsy – a detailed history of the event, including that of any witnesses, clinical examination, investigations including blood tests, EEG and neuro-imaging. Then a definitive diagnosis may be made by your doctor.

Being given the diagnosis of epilepsy is a big challenge. At that point, the reality of “having epilepsy” needs to be “owned” by the patient and by the person’s family and friends.

When a person can accept the diagnosis, a long process of education about epilepsy in general and about the nature of their particular type of epilepsy or syndrome ensues. Some understanding about their particular epilepsy will be able to better contribute to the management strategies involved. The establishment of a shared therapeutic partnership between the patient and their epilepsy management team (such as treating doctor, and epilepsy nurse) is very important.

### Establishing a therapeutic partnership: steps on the journey

1. Receiving and accepting the diagnosis of epilepsy
2. Education: Understanding your type of epilepsy
3. Understanding anti-epileptic medications and appropriate therapeutic strategies
4. Facilitating the best possible control of epilepsy
5. Continuing to work with your epilepsy management team for optimum quality of life

### Why do seizures occur?

Given sufficient biological or environmental circumstances, every person on earth has the potential to have an epileptic seizure, for example with head injury or hypoxia (lack of oxygen). There is a point at which the normal electrical discharges of brain cells (neurons) escape the normal control mechanisms and a more widespread electrical discharge occurs resulting in a seizure. The nature or type of seizure will depend on the area in the brain where the abnormal electrical discharges arise.

### What is the concept of seizure threshold?

Seizure threshold is the balance between excitatory and inhibitory mechanisms in the brain. However this is not uniform for all people.

Because of genetic and environmental variations, some people have a lower seizure threshold than others. By understanding your particular type of epilepsy and anything that may trigger it, you may be able to enhance seizure control.

### What can I do to help control my epileptic seizures?

Some of these suggestions below will refer to everyone; some are specific to certain epilepsy syndromes. Discuss any implications for you with your doctor.

- 1) Enhance seizure threshold
  - a) Take the prescribed anti-epileptic medications consistently and reliably.
- 2) Avoid circumstances and events that may lower seizure threshold
  - a) Sleep issues
    - i) Inadequate duration.
      - (1) Try to get eight hours per night and more if necessary.
    - ii) Poor sleep routine
      - (1) Establish a regular routine and avoid very late nights. If a late night is unavoidable, allow ‘sleep-in’ time the next morning
    - iii) Shift work
      - (1) In some epilepsy syndromes, it is necessary to avoid variable shift work because of the sleep disruption that inevitably occurs.
    - iv) Jetlag
      - (1) Space out medications at the same time intervals as at home. Leave a day on arrival to catch up on sleep.
  - b) Drugs
    - i) Caffeine – use in moderation. Beware of reduced sleep effects
    - ii) Prescribed medications – discuss these with your doctor. Sometimes, the benefit /risk ratio may necessitate taking a medication that may minimally lower seizure threshold.
    - iii) Alcohol – if used, it is recommended you consume only small amounts. Excessive and binge drinking should always be avoided.
    - iv) Illicit drugs – avoid all of these. Some are particularly dangerous, for example amphetamines, Ecstasy and PCP
    - v) Photosensitivity – flickering lights and patterns (especially at frequencies between 10Hz to 25Hz) may trigger

seizures in a small subset of genetically susceptible epilepsy patients. Modern televisions with LCD and plasma screens and most computer screens with high refresh rates are rarely problematic. Older style television screens, fast frequency strobe lights and occasionally computer games may be of concern in a few people.

- c) Hormonal factors – for women with epilepsy, relevant issues should be discussed in detail with your doctor.
    - i) Perimenstrual seizures.
    - ii) Pregnancy, labour and the puerperium may all have various effects on seizure control.
  - d) Other circumstances and intercurrent illness
    - i) Diarrhoea and vomiting – discuss with your doctor whether you should increase your antiepileptic medication at this time
    - ii) Surgery – discuss with your doctor about how to take your medications immediately before and after surgery.
- 3) Take positive steps towards a psychologically healthy outlook. The diagnosis of epilepsy has many implications for your life. However, it does not need to ‘take over’ your life.
    - a) Emotional/psychological stress – it is impossible to avoid some stress in life but take positive steps to keep a reasonable balance. Acknowledging the stressors and seeking appropriate counsel can be helpful.
    - b) Do not over-identify with epilepsy. Controlled or not, it is not you!
      - i) Epilepsy is a symptom. It is biological. It is not your fault (or anyone else’s).
        - (1) Find a practice to support psychological and spiritual wholeness.
        - (2) Maintain good self-esteem. Work on it.
    - c) If symptoms of anxiety or depression arise, talk to your doctor.

These practical steps will help to facilitate optimum seizure control which is the shared goal of the therapeutic partnership involving the patient and the epilepsy management professional team.

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