

Epilepsy - treatment options

Epilepsy is a common neurological condition in which a person has a tendency to have recurring seizures. The main treatment for epilepsy is medication, which can control seizures in approximately 70 per cent of people with epilepsy. Surgery may be an option for a small number of people if medication fails to control their seizures.

Avoiding known triggers and paying attention to lifestyle issues, such as getting adequate sleep, is an important part of successfully managing the disorder.

Treatment aims to prevent seizures, which usually leads to improved quality of life. It is estimated as many as ten per cent of people will have an isolated seizure and at least a third will go on to have a recurrence and eventually be diagnosed with epilepsy. It is difficult to predict who will have a seizure recurrence and be diagnosed with epilepsy. A strong family history of epilepsy or a previous serious brain injury from trauma or a stroke, for example, increases the likelihood of a diagnosis of epilepsy.

Antiepileptic medications

Most people diagnosed with epilepsy are prescribed an antiepileptic drug (AED) and about 70 per cent will eventually achieve complete seizure control. When deciding whether or not to start medication, or which AED to prescribe, your doctor will consider various issues. These will include your:

- Type of seizure and epilepsy syndrome, if known
- Likely risk of having further seizures
- Age
- Gender
- General health
- Treatment preferences and cost of medication.

Medication is not a cure

Medication does not 'cure' epilepsy – its role is to stop you having seizures. To prevent seizures, you must take the prescribed dose regularly to maintain an effective level of the drug in your body at all times.

If you haven't had seizures for a long time, you may question the need for ongoing treatment. It is vital you keep taking your medication exactly as prescribed until you have had an opportunity to discuss this issue with your doctor. Forgetting your medication or stopping it suddenly can provoke a potentially life threatening seizure. Taking medication is a personal choice and it is important to understand why treatment is recommended so you can make an informed decision. Whatever you decide, it is important that any changes to your medication are guided by your doctor.

You may not need medication forever

You may not have to take medication for the rest of your life. Many people only need medication for a limited time, usually a few years. As a general rule, the need for ongoing medication treatment is reviewed after someone has been seizure-free for at least two years. Each person's circumstances needs to be assessed individually and your doctor may advise you to stay on treatment indefinitely, even if you have been seizure-free for many years.

Side effects and interactions

You may experience side effects from your medication. These can vary, depending on which medication you are prescribed. Possible side effects can include tiredness, weight changes, mood disturbance or a skin rash. Usually side effects will settle over time. If they are particularly troublesome, your doctor may suggest a change of medication.

Antiepileptic drugs often interact with other medications and can reduce the effectiveness of other drugs, like the contraceptive pill. Taking some common over-the-counter treatments can also lessen the effectiveness of your epilepsy medication. You should tell your doctor and pharmacist about any other medications you take, including vitamin supplements or herbal treatments.

Important issues about your medication

Some general points about antiepileptic drugs include:

- Medication is usually started on a low dose, with a gradual increase over time
- Your doctor should guide changes to the type or dose of medication – don't alter the dose yourself
- A new medication is usually introduced before or while the old medication is being reduced
- Sometimes a combination of medications is used
- Try not to miss a dose. Ask your doctor what to do if this happens
- A dosette box or Webster pack can help you remember your medication
- Your doctor will discuss potential side effects and how long they may affect you
- Tell your doctor if side effects occur. Changes can be made if the side effects are persistent, serious or troubling
- If you still have seizures while taking medication, tell your doctor
- Plan ahead so you do not run out of your medication
- Illness, diarrhoea and vomiting may affect the absorption of medication. Check with your doctor about what to do in these circumstances
- Medication changes may need to be made for women prior to conception to minimise the risk of abnormalities in their baby. Your doctor will also advise you to take folate supplements prior to conception to reduce the risk of neural tube defects (spina bifida) in your baby
- Antiepileptic drugs should not be stopped suddenly unless you are directed to by your doctor
- Avoid changing to a cheaper generic drug, even if it is offered by your pharmacist, especially if you have complete control of your seizures. Substituting your medication may cause a seizure or worsen side effects.

Surgery

Epilepsy is sometimes caused by an area of abnormal brain tissue, frequently located in the temporal lobe of the brain. If surgery can remove this tissue, seizures can often be prevented. The success of surgery and the risks of complications differ for each person. Surgery is not intended to be a substitute for medication – it is usually investigated as a treatment option when medication fails to prevent seizures, especially for people with focal onset seizures.

There are a number of things you and your doctor will need to consider. You will also need to have a number of tests to decide if you are a suitable candidate for surgery. Generally these tests need to confirm your seizures are all arising from the same place in your brain and that this area isn't too close to important functions such as speech or movement. Your doctor will then discuss with you the possible outcomes of surgery, so that you can make an informed choice. Only a small percentage of people are suitable candidates for surgery.

Vagal nerve stimulator (VNS)

The vagal nerve stimulator is a device that is implanted just beneath the pectoral or chest muscle on the left side of the chest. About the size of a stopwatch, it has leads that attach to the vagus nerve in the neck – these leads convey a regular electric pulse up the vagal nerve to the brain. By stimulating the vagus nerve, the brain's potential to generate or spread abnormal seizure activity can be reduced. It is very rare for the VNS to stop someone's seizures completely but some people have fewer and less severe seizures, which results in an improved quality of life. It can take two to three years to achieve maximum effectiveness.

This procedure is not a substitute for medication and is only performed when medication is not effective. It is a very expensive treatment. Most private health funds will cover the VNS device and leads once the person has been a member of the fund for the required period of time, usually 12 months.

Ketogenic diet

The ketogenic diet has been reported to reduce seizures in a very small number of children with uncontrolled epilepsy. The high fat, low carbohydrate and protein diet creates ketones when the body burns fat for a source of energy. This state is known as ketosis and causes changes in body chemistry that may help to control seizures.

This diet is extremely unpalatable and challenging and must be carried out under medical supervision. It is not generally considered for adults and is usually only suggested for children when other treatments fail. More detailed information is available from the Royal Children's Hospital, Children's Epilepsy Program website (www.rch.org.au).

Avoiding triggers

In some cases, a very specific trigger such as reading can provoke seizures. In these rare cases, avoiding the trigger may prevent seizures. There are a number of other factors that more commonly provoke seizures in some people. These can vary from person to person. Avoiding or reducing triggers may help to reduce seizures in some people, but not all triggers can be avoided and seizures can still occur without any obvious triggers.

Some possible triggers include:

- Lack of sleep
- Missed medication
- Alcohol
- Certain drugs (prescription and recreational)
- Flickering lights or patterns
- Stress
- Menstruation
- Illness (especially with diarrhoea or vomiting)
- Significant variation in temperature and overheating.

Complementary therapies

Complementary therapies may help a person with epilepsy by improving overall health and wellbeing. However, research does not suggest that complementary therapies are likely to improve seizure control in most cases. In some situations, they have been shown to trigger seizures.

If you are interested in using a complementary therapy, discuss this with your doctor. If you use a complementary therapy, it is usually strongly recommended that you do not stop your antiepileptic drug unless advised to do so by your doctor.

Where to get help

- Your doctor
- Neurologist
- Epilepsy Foundation of Victoria Tel. (03) 9805 9111
- Epilepsy Helpline Tel. 1300 852 853
- Australian Pregnancy Register for Women on Antiepileptic Medication Tel. 1800 069 722

Things to remember

- Medication can successfully prevent seizures in approximately 70 per cent of people with epilepsy.
- Do not stop taking antiepileptic drugs suddenly without medical advice.
- Surgery may be an effective treatment for a very small percentage of people with epilepsy, where medication fails.

- Avoiding known triggers and paying attention to lifestyle issues, such as getting adequate sleep, is an important part of successfully managing your epilepsy.

This page has been produced in consultation with, and approved by:

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