

**Antiepileptic drugs can cause a number of side-effects. However many people experience only a few, predominantly when they start the medication. This guide explains some unwanted effects and when you should call a doctor.**

Most people with epilepsy obtain seizure control with only one medication. But some may need more than one. Choice will depend on factors like seizure type, age, lifestyle, employment and tolerance. It is important to have clear instructions from your doctor or neurologist and pharmacist on how and when to take the medication and what unwanted effects may occur.

Unwanted side effects should lessen or disappear in the first few weeks of treatment. Please contact your doctor if side-effects persist and are intolerable, or are listed as serious.



### Carbamazepine

**Brand Names:** Tegretol (Novartis Pharmaceuticals)  
Tegretol CR (Controlled Release)  
Tegretol Liquid  
Teril (Alphapharm Pty Ltd)

**Used for:** Focal or generalised seizures

**Some unwanted effects:** Drowsiness, dizziness, unsteadiness, upset stomach, vomiting, headache, anxiety, memory problems, diarrhoea, constipation, heartburn, dry mouth or back pain. **Tell your doctor if any of these symptoms are severe or do not go away.**

**The following symptoms are uncommon, but serious. If you have any of these, call your doctor immediately or seek emergency medical treatment:** rash; confusion; loss of contact with reality; depression; suicidal thoughts; chest pain; yellowing of the skin or eyes (jaundice); vision problems; blood disorders (watch for symptoms including sore throat, fever, chills or other signs of infection); unusual bleeding or bruising; tiny purple dots or spots on the skin; mouth sores; rash.

**Note:** The antibiotic erythromycin as well as grapefruit juice may alter the metabolism of carbamazepine. Interactions may occur with other antiepileptic drugs and oral contraceptives.

### Clobazam

**Brand Names:** Frisium (Aventis Pharma Pty Ltd)

**Used for:** Focal or generalised seizures, often prescribed in people with Lennox Gastaut Syndrome

**Some unwanted effects:** Sedation and tiredness are the most common. Dizziness; loss of coordination, difficulty speaking or swallowing; nausea; change in appetite; constipation; cough or joint pain can also occur. Confusion may be seen, more so in the elderly. **Tell your doctor if any of these symptoms are severe or do not go away.**

**The following symptoms are uncommon, but serious. If you have any of these, call your doctor immediately or seek emergency medical treatment:** Difficult, painful, or frequent urination; difficulty breathing; sores in your mouth; rash; hives; peeling or blistering skin; fever.

**Note:** Interacts with Sodium Valproate

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## Clonazepam

**Brand Names:** Paxam  
Rivotril (Roche Products Pty Ltd)

**Used for:** Many different seizure types, and sometimes in emergency management of seizures

**Some unwanted effects:** Drowsiness; dizziness; unsteadiness; problems with coordination; difficulty thinking and remembering; increased saliva; muscle or joint pain; frequent urination; blurred vision; changes in sex drive or ability. **Tell your doctor if any of these symptoms are severe or do not go away.**

**The following symptoms are uncommon, but serious. If you have any of these, call your doctor immediately or seek emergency medical treatment:** Rash; hives; swelling of the eyes, face, lips, tongue or throat; difficulty breathing or swallowing; hoarseness.

## Ethosuximide

**Brand Names:** Zarontin (Pfizer Pty Ltd)

**Used for:** Absence seizures

**Some unwanted effects:** Nausea, vomiting, diarrhoea, stomach pain or cramps, loss of appetite, weight loss, swelling of the tongue, overgrowth of the gums, hiccups, drowsiness, dizziness, headache, suddenly awakening from sleep in a frightened state, difficulty concentrating, hair growth in unusual places, near-sightedness, vaginal bleeding.

**The following symptoms are uncommon, but serious. If you have any of these, call your doctor immediately or seek emergency medical treatment:** Sore throat, fever, chills, and other signs of infection; joint pain or swelling; muscle pain; red, itchy skin rash especially on face; hives; blisters.

## Felbamate

\* Because severe side effects have occurred in some people with the use of Felbamate, it should be used only in people with severe epilepsy whose seizures have not improved with other treatments, and only after careful consideration.

**Some unwanted effects:** Heartburn; vomiting; constipation; diarrhoea; weight loss; sleeplessness; nervousness; drowsiness; swelling of the face; runny nose; differences in menstrual bleeding

**The following symptoms are uncommon, but serious. If you have any of these, call your doctor immediately or seek emergency medical treatment:** Hives; rash; itching; difficulty breathing or swallowing; rapid or pounding heartbeat.

**Note:** Interacts with Carbamazepine, Phenytoin and Gabapentin

## Gabapentin

**Brand Names:** Neurontin (Pfizer Pty Ltd)  
Gantin (Arrow)  
Pendine (Alphapharm Pty Ltd)

**Used for:** Focal seizures

**Some unwanted effects:** Drowsiness; tiredness or weakness; dizziness; headache; tremor; double or blurred vision; unsteadiness; anxiety; memory problems; strange or unusual thoughts; unwanted eye movements; nausea, vomiting; heartburn; diarrhoea, constipation; dry mouth; increased appetite; weight gain; swelling of the hands, feet, ankles, or lower legs; back or joint pain; fever; runny nose, sneezing, cough, sore throat, or flu-like symptoms; ear pain; red, itchy eyes (sometimes with swelling or discharge).

**The following symptoms are uncommon, but serious. If you have any of these, call your doctor immediately or seek emergency medical treatment:** skin rash, itching; swelling of the face, throat, tongue, lips, or eyes; hoarseness; difficulty swallowing or breathing; seizures.

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## Lacosamide

**Brand Names:** Vimpat [UCB]

**Used for:** Focal seizures

**Some unwanted effects:** Blurred or double vision; uncontrollable eye movements; dizziness; drowsiness; headache; irritability; nausea; vomiting; diarrhoea; tremor; weakness; poor coordination, balance, or walking; itching. **Tell your doctor if any of these symptoms are severe or do not go away.**

**The following symptoms are uncommon, but serious. If you have any of these, call your doctor immediately or seek emergency medical treatment:** Fast or pounding heartbeat or pulse; shortness of breath; slow heartbeat; fainting; fever; rash; tiredness; yellowing of the skin or eyes (jaundice); dark urine.

## Lamotrigine

**Brand Names:** Lamictal [GlaxoSmithKline GSK]

**Used for:** Focal or generalised seizures

**Some unwanted effects:** Loss of balance or coordination; double vision or blurred vision; uncontrolled movements of the eyes; tremor; difficulty thinking, concentrating or speaking; drowsiness; dizziness; diarrhoea; constipation; loss of appetite; stomach, back, or joint pain; missed or painful menstrual periods, swelling, itching, or irritation of the vagina. **Tell your doctor if any of these symptoms are severe or do not go away.**

**The following symptoms are uncommon, but serious. If you have any of these, call your doctor immediately or seek emergency medical treatment:** Skin rash; worsening of seizures or changes in seizures; chest pain; swelling of the hands, feet, ankles, or lower legs; headache; stiff neck; sensitivity to light; loss of consciousness.

**Note:** Interactions may occur with Sodium Valproate, Phenytoin and Carbamazepine.

## Levetiracetam

**Brand Names:** Keppra [UCB Pharma]

**Used for:** Focal and generalised seizures

**Some unwanted effects:** Drowsiness; muscle weakness; unsteady walking; poor coordination; headache; pain; loss of appetite; forgetfulness; anxiety; agitation or hostility; dizziness; moodiness; nervousness; numbness, burning, or tingling feeling in the hands or feet; vomiting; diarrhoea; constipation; changes in skin colour. **Tell your doctor if any of these symptoms are severe or do not go away.**

**The following symptoms are uncommon, but serious. If you have any of these, call your doctor immediately or seek emergency medical treatment:** Depression; hearing voices or seeing visions of things that do not exist (hallucinations); thoughts of killing yourself; fever, sore throat, other signs of infection, double vision; seizures that are worse or different than the seizures you had before; itching; rash; swelling of the face.

## Oxcarbazepine

**Brand Names:** Trileptal [Novartis Pharmaceuticals]

**Used for:** Focal or generalised tonic clonic seizures

**Some unwanted effects:** Dizziness; drowsiness; vision changes; double vision; fast, uncontrolled movements of the eyes; diarrhoea; constipation; heartburn; stomach pain; loss of appetite; changes in the way food tastes; dry mouth; weight gain; tremor; difficulty coordinating movements; falling down; slowed movements or thoughts; speech problems; forgetfulness; difficulty concentrating; nervousness; mood swings; back pain; muscle weakness or sudden tightness; acne; toothache; earache; hot flushes; increased sweating; cold symptoms; nosebleeds; swelling, redness, irritation, burning, or itching of the vagina; white vaginal

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discharge. Tell your doctor if any of these symptoms are severe or do not go away.

**The following symptoms are uncommon, but serious. If you have any of these, call your doctor immediately or seek emergency medical treatment:** Swelling of the face, throat, tongue, lips, eyes, hands, feet, ankles, or lower legs; worsening of seizures; headache; unusual thirst; nausea; vomiting; weakness; confusion; reduced alertness; rash; bumps or blisters in the mouth, on skin, or genitals; red or purple-colored blotches or dots on skin; red, irritated eyes; itching; fever; swollen glands in the neck or under the arms; yellowing of the skin or eyes; unusual bruising or bleeding; bleeding from the rectum or blood in faeces; sore throat, cough, chills, and other signs of infection; increased, decreased, or painful urination; joint pain; chest pain.

**Note:** Interactions may occur with Phenytoin, Carbamazepine, Phenobarbitone and oral contraceptives.

### Perampanel

**Brand Names:** Fycompa (Eisai)

**Used for:** Focal seizures

**Some unwanted effects:** Dizziness or sense of spinning; drowsiness; nausea; vomiting; weight gain; irritability; weakness; poor coordination; muscle or joint pain; blurred or double vision.

**Call your doctor at once if you develop serious or life-threatening changes in mental health or behaviour such as:** aggression, hostility, anger, anxiety, irritability, suspicious or distrustful behavior, and thinking about harming or killing others or threatening or trying to do so. Especially increased hostility or aggression toward others

### Phenytoin

**Brand Names:** Dilantin (Pfizer Pty Ltd)  
Paediatric suspension  
Forte suspension

**Used for:** Focal or generalised seizures

**Some unwanted effects:** Sleeplessness; uncontrollable eye movements; abnormal body movements; loss of coordination; confusion; slowed thinking; slurred speech; dizziness; headache; nausea; vomiting; constipation; unwanted hair growth; coarsening of facial features; enlargement of lips; overgrowth of gums; pain or curving of the penis. **Tell your doctor if any of these symptoms are severe or do not go away.**

**The following symptoms are uncommon, but serious. If you have any of these, call your doctor immediately or seek emergency medical treatment:** Swollen glands; fever; blisters; rash; joint pain; yellowing of the skin or eyes; pain in the upper right part of the stomach; excessive tiredness; unusual bruising or bleeding; loss of appetite; flu-like symptoms.

### Pregabalin

**Brand Names:** Lyrica (Pfizer)

**Used for:** Focal seizures and neuropathic pain

**Some unwanted effects:** Dizziness; tiredness; headache; dry mouth; swelling of the arms, hands, feet, ankles, or lower legs (oedema); blurred vision, weight gain, nausea, vomiting, constipation, bloating; increased appetite; weight gain; difficulty concentrating, difficulty remembering or forgetfulness; speech problems, confusion, forgetfulness, anxiety, elevated mood, poor balance and coordination, muscle twitching; tremor; weakness, back pain. **Tell your doctor if any of these symptoms are severe or do not go away.**

**The following symptoms are uncommon, but serious. If you have any of these, call your doctor immediately or seek emergency medical treatment:** Blurred vision, double vision, or other changes in eyesight; hives; rash; itching; blisters; swelling of the eyes face, throat, mouth, lips, gums, tongue, head or neck; shortness of breath; wheezing; muscle pain, tenderness, soreness, or weakness, especially if it is with fever; chest pain.

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## Rufinamide

**Brand Names:** Banzel [Eisai]

**Used for:** Specifically to treat Lennox Gastaut Syndrome

**Some unwanted effects:** Dizziness; headache; loss of appetite; nausea; vomiting; sleepiness; poor coordination; difficulty walking; excessive movement or activity; uncontrollable movements of the eyes; tremor; difficulty paying attention; back pain, stomach pain. **Tell your doctor if any of these symptoms are severe or do not go away.**

**If you experience any of the following serious symptoms, call your doctor immediately:** Fever; rash; hives; itching; swelling of the face; decreased ability to respond to others; seizures; blurred or double vision; yellowing of the skin or eyes (jaundice); dark urine; light coloured faeces.

**Note:** Interactions may occur with Sodium Valproate, Carbamazepine, Phenobarbital, Phenytoin, Lamotrigine

## Sodium Valproate

**Brand Names:** Epilim [Sanofi-Synthelabo Aust Pty Ltd] Epilim syrup  
Valpro [Alphapharm Pty Ltd]

**Used for:** Focal and generalised seizures

**Some unwanted effects:** Drowsiness; dizziness; headache; tremor; blurred or double vision; mood swings; abnormal thinking; diarrhoea; constipation; changes in appetite; weight gain; temporary hair loss; poor coordination; ringing in the ears; runny nose. **Tell your doctor if any of these symptoms are severe or do not go away.**

**The following symptoms are uncommon, but serious. If you have any of these, call your doctor immediately or seek emergency medical treatment:** Skin blisters or rash; easy bruising; tiny purple-coloured skin spots; bloody nose, unusual bruising or bleeding; dark urine, fever; hives; difficulty breathing or swallowing; confusion; vomiting; weakness, tiredness.

## Sulthiame

**Brand Names:** Ospolot [Pharmalab]

**Used for:** Focal and generalised seizures, behavioural disorders associated with epilepsy

**Some unwanted effects:** Those most commonly reported include poor balance and coordination; weakness; tingling; burning or numbness of the face, hands and feet; rapid breathing, shortness of breath, difficulty breathing; changes in appetite; weight changes; fainting.

**The following symptoms are uncommon, but serious. If you have any of these, call your doctor immediately or seek emergency medical treatment:** skin rash; nausea; vomiting; stomach pain, cramps or discomfort; headache, unusual changes in mood or behaviour, depression, increased saliva; increased frequency of seizures, sleeplessness; and prolonged seizures.

**ThNote:** Alcohol should not be consumed while taking Sulthiame. Use with Primidone may cause severe side-effects. May raise the blood levels of Dilantin and Phenobarbitone and possibly barbiturates.

## Tiagabine

**Brand Names:** Gabitril [Sanofi-Synthelabo Pty Ltd]

**Used for:** Focal seizures (add-on therapy, in combination with another antiepileptic drug)

**Some unwanted effects:** Dizziness; drowsiness; lack of energy or weakness; unsteadiness, or lack of coordination causing difficulty walking; depression; hostility or anger; irritability; confusion; difficulty concentrating or paying attention; abnormal thinking; speech or language problems; increased appetite; upset stomach or stomach pain; nervousness; sleeplessness; itching; bruising; painful or frequent urination. **Tell your doctor if any of these symptoms are severe or do not go away.**

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**The following symptoms are uncommon, but serious. If you have any of these, call your doctor immediately or seek emergency medical treatment:** Rash; sores on the inside of your mouth, nose, eyes or throat; flu-like symptoms; changes in vision; severe weakness; shaking hands you cannot control; numbness, pain, burning, or tingling in the hands or feet; seizures, or prolonged seizures.

**Note:** Interactions may occur with Phenytoin, Carbamazepine and Phenobarbitone.

### Topiramate

**Brand Names:** Topamax (Janssen-Cilag Pty Ltd)

**Used for:** Generalised or focal seizures

**Some unwanted effects:** Slow thinking or movements; numbness, burning, or tingling in the hands or feet; nervousness; headache; drowsiness; weakness; tremor; uncontrollable eye movements; weight loss; constipation; heartburn; change in taste; dry mouth; nosebleed; teary or dry eyes; back, muscle, leg, or bone pain; missed menstrual periods; excessive menstrual bleeding; **Tell your doctor if any of these symptoms are severe or do not go away.**

**The following symptoms are uncommon, but serious. If you have any of these, call your doctor immediately or seek emergency medical treatment:** : Blurred vision, double vision or loss of vision; eye pain or redness; worsening of seizures; feeling cold; difficulty concentrating; speech problems, especially difficulty thinking of specific words; confusion; memory problems; loss of coordination; pounding or irregular heartbeat; chest pain; shortness of breath; trouble breathing; fast, shallow breathing; inability to respond to things around you; excessive tiredness; diarrhoea, nausea, vomiting, stomach pain; loss of appetite; intense back or side pain; bloody, cloudy, or foul-smelling urine; constant need to urinate; difficulty urinating or pain when urinating; fever or other signs of infection.

**Note:** Interactions may occur with Phenytoin, Carbamazepine, Phenobarbitone and oral contraceptives. Topiramate may cause osteoporosis in adults and rickets in children. Topiramate may also slow the growth of children. These conditions can be caught early and prevented through regular laboratory tests.

### Vigabatrin

**Brand Names:** Sabril (Aventis Pharma Pty Ltd)

**Used for:** Because vigabatrin can cause permanent vision damage, including loss of peripheral vision and blurred vision, it is only used in cases where seizures are frequent and have not been well controlled after trialling many other medications. Also used in the treatment of infantile spasms.

**Some unwanted effects:** Sleepiness; dizziness; tremor; weakness; joint or muscle pain; poor coordination; memory problems and not thinking clearly; weight gain; swelling of the hands, feet, ankles, or lower legs; pain, burning, or tingling in the hands or feet; fever; irritability; diarrhoea; nausea; vomiting; constipation; stomach pain; heartburn; severely painful cramps during menstrual period.

**The following symptoms are uncommon, but serious. If you have any of these, call your doctor immediately or seek emergency medical treatment:** Confusion; tiredness; pale skin; fast heartbeat; difficulty breathing; hives; itching.

**Note:** Regular tests may be needed to determine if there are any changes in visual fields.

### Zonisamide

**Brand Names:** Zonegran (Cscigen Australia)

**Used for:** Focal seizures in adults as an add on therapy

**Some unwanted effects:** Nausea; vomiting; weight loss; changes in taste; diarrhoea; constipation; heartburn; dry mouth; headache; dizziness; confusion; irritability; sleeplessness; difficulty with memory; pain, burning, numbness, or tingling in the hands or feet; uncontrollable eye movements; double vision. **Tell your doctor if any of these symptoms are severe or do not go away.**

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**The following symptoms are uncommon, but serious. If you have any of these, call your doctor immediately or seek emergency medical treatment:** Rash; blistering or peeling of skin; worsening seizures; sudden back pain; stomach pain; pain when urinating; bloody or dark urine; flu-like symptoms; sores in mouth; easy bruising; difficulty thinking of words or trouble speaking; difficulty thinking or concentrating; poor coordination; difficulty walking; severe weakness; severe muscle pain, extreme tiredness; loss of appetite; fast, shallow breathing; irregular heartbeat; loss of consciousness.

### The Barbiturates

**Brand Names:** Phenobarbitone [Sigma Pharmaceuticals Pty Ltd]  
Primidone or Mysoline [AstraZeneca Pty Ltd]  
Methylphenobarbitone or Prominal [Sanofi-Synthelabo Aust Pty Ltd]

**Used for:** Focal or generalised seizures

**Some unwanted effects:** Severe sedation, clumsiness or unsteadiness; dizziness or lightheadedness, drowsiness, hangover effect; hyperactivity in children; impaired concentration, memory and alertness.

### Medications used in emergency (Benzodiazepines)

#### Diazepam

**Brand Names:** Valium

**Used for:** Emergency treatment of prolonged or clusters of seizures

**Some unwanted effects:** Those most commonly reported are sedation, fatigue, drowsiness, muscle weakness, poor coordination, memory loss and shallow breathing.

#### Midazolam

**Brand Names:** Hypnovel

**Used for:** Emergency treatment of prolonged or clusters of seizures

**Some unwanted effects:** Those most commonly reported are sedation, fatigue, drowsiness, muscle weakness, poor coordination, memory loss and shallow breathing.

Although it's uncommon, these medications may also cause breathing difficulties when given in high doses.

### New drugs still under investigation<sup>12</sup>

#### Retigabine

**Used for:** Focal seizures

**Some unwanted effects:** Dizziness; sleepiness; weakness; colour changes in the eyes; discolouration of lips, skin or nails;; confusion, slurred speech, poor coordination; tremor; blurred or double vision; tremor; constipation; nausea; indigestion; increased appetite.

#### Stiripentol

**Used for:** Severe myoclonic seizures in infancy [SMEI or Dravet's syndrome], atypical absence seizures and focal seizures.

**Some unwanted effects:** Drowsiness; loss of appetite; nausea and vomiting; weight loss; become irritable or aggressive; sleeplessness.

**Note:** Stiripentol can mix with many other anticonvulsant drugs and increase their levels in the bloodstream, consequently increasing the unwanted effects of these other drugs.

1 <http://patient.info/>

2 <http://www.medicinesforchildren.org.uk/>

## Other drugs also used in the treatment of epilepsy

**Bumetanide** (diuretic for water retention)

**Acetazolamide** (for glaucoma and water retention)

## Taking Medications

- Read the manufacturer's information before starting a medication. Go to <http://www.nps.org.au/medicines> to find the Consumer Medicine Information pamphlets or ask your pharmacist.
- Take the medication as prescribed. Changing the dose or daily routine may provoke unexpected seizures or side effects.
- Usually a medication is started slowly and the dose is gradually increased until it is either effective in controlling seizures, or unwanted side-effects occur.
- If the medication is not effective or the side-effects are unacceptable, a second medication may be added and the first slowly withdrawn.
- Once seizures are stabilised with medication, avoid changing brands.

## When medication is prescribed

- Ask the doctor what other relevant medications may interfere or interact with the drug.
- Ask the doctor what to do if a dose is missed.
- Ensure that a continuous supply of the drug is on hand, especially when travelling.
- Store medications in original containers, clearly labelled and in a cool dry place out of reach of children.
- Avoid alcohol unless discussed with the doctor.

## Unwanted side effects

All medications have side-effects and some people experience them in the first few weeks after starting a medication but they tend to lessen or disappear after this. Sometimes the side-effects are related to dose and can often be resolved if the dose is changed. The medication will need to be changed if an allergic reaction occurs.

## Duration of therapy

Some people may have lifelong therapy, while others may be able to discontinue medication after a significant seizure free period. This depends on the type of seizures or epilepsy syndrome, medication response and the length of time the person is seizure-free. Social factors like education, driving and employment are also considered.

## Withdrawal of medication

Withdrawal from medications for seizures should be done slowly and under medical supervision. Suddenly stopping these medications can provoke seizures.

## Blood level monitoring

If seizures are well controlled, blood tests are seldom necessary. Some reasons for monitoring blood levels include:

- Use of Phenytoin (Dilantin)
- Poor seizure control, unexplained or breakthrough seizures
- Use of more than one drug with unwanted side-effects
- Epilepsy in the very young, elderly or disabled persons
- Other medications and medical conditions

**For further information on medications call Epilepsy Action Australia 1300 37 45 37  
OR Medicines line on 1300 888 763.**

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This information is given to provide accurate, general information about epilepsy. Medical information and knowledge changes rapidly and you should consult your doctor for more detailed information. This is not medical advice and you should not make any medication or treatment changes without consulting your doctor.

