



## **DRUG THERAPY AND EPILEPSY**

### **MEDICATION FOR EPILEPSY**

The standard treatment for epilepsy is the regular use of one or more chemical substances called anti-epileptic or anti-convulsant drugs. The ideal situation is when a person takes as little medication as possible while maintaining seizure control.

### **DRUG OPTIONS**

Over the past decade there have been a number of developments, with new more specific drugs becoming available. This is not to say that the older drugs have become obsolete. In fact, the newer preparations may not be at all suitable for some people.

Each drug has two names, the generic, or chemical name (for example carbamazepine) and the trade name (for example Tegretol), given by the manufacturer. It is helpful for a person to know the generic names of his/her drugs, especially when travelling abroad.

### **TEAM WORK**

Co-operation between you and your doctor is essential in establishing optimum control of your epilepsy. The more accurately you, or a family member, can describe your seizures and the effects of the medication, the more precise the doctor's prescription can be. It is important that drugs are taken exactly as prescribed. Compliance is a major factor in the overall results that can be achieved. Your pharmacist is also able to assist with information and advice about your medication.

### **DRUG CHOICES**

The table below contains information about the most commonly used anti-epileptic drugs. This is a summary and by no means is it a full description of the drugs.

In all cases it is essential to discuss your medication needs and queries with your doctor. Special consideration must be given in respect of drugs for children with epilepsy since the effects of the medication may differ from adults.

There are certain drugs that have proved to be harmful to the unborn child. It's advisable for a woman to discuss her situation with her doctor prior to becoming pregnant so she can be informed of the risks that may exist and the options open to her.

### **DRUG INTERACTIONS**

When a person is on more than one type of medication, the drugs may influence each other and alter their effect. It is essential that the doctor should know about any other drugs a person with epilepsy is taking.

The interaction between oral contraceptives and anti-epileptic drugs (particularly carbamazepine, phenobarbitone and phenytoin) is such that the effectiveness of the contraception is reduced. Women with epilepsy should therefore obtain specific advice regarding contraception options.

Alcohol taken with anti-epileptic drugs poses a problem and is best avoided. A balanced diet, with adequate nutrients and daily water intake, is advised for optimal drug absorption

*\*Trade name in brackets*



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2/2 Drugs

DRUG	EPILEPSY/SEIZURE TYPE	ADVERSE SIDE EFFECTS
Carbamazepine (Tegretol, Degranol)*	Simple & complex partial seizures, generalised tonic clonic seizures	Dose related: nausea, double vision, unsteadiness; allergic: rash, reduced white blood cell count, increased appetite (rarely), no obvious effect on concentration, memory or behaviour
Clobazam (Frisium)	"Add-on" in tonic-clonic, myoclonic & partial epilepsies. Effective in catamenial epilepsy (menstrual seizures)	Dose related: drowsiness & lethargy. Drug loses effect with time despite increasing doses.
Clonazepam (Rivotril, Clonopil)	Second or third choice for myoclonic seizures. Effective "add-on" for tonic-clonic & absence seizures. May be used in status epilepticus	Dose related: drowsiness, lethargy, drooling & hyperactivity in children. Drug loses effect with time. May cause inflammation of veins.
Diazepam (Valium)	Drug of choice in status epilepticus (rectally or intravenously). Rarely used regularly in tablet form	Dose related: as with Clonazepam.
Ethosuximide (Zarontin)	First or second choice for typical absences. May be effective in myoclonic seizures. Not effective in generalised tonic clonic seizures	Dose related: drowsiness, nausea, vomiting, headache, irritability. Allergic: rashes.
Gabapentin (Neurontin)	"Add-on" therapy in partial seizures	Dose related: drowsiness, lethargy, nausea.
Lamotrigine (Lamictin)	"Add-on", and, in patients over 12 years, monotherapy in generalised tonic-clonic seizures (possible second choice after sodium valproate). Effective in absences with myoclonic seizures and partial seizures	Dose related: sedation, unsteadiness and possibly worsening of seizures. Allergic: rash-this may occur in up to 10% of patients, particularly if sodium valproate is taken at the same time. To avoid rash, the drug must be introduced very gradually.
Oxcarbazepine (Trileptal)	Primary generalised tonic-clonic seizures and partial seizures.	Similar to carbamazepine but less severe.
Phenobarbitone (Phenobarbital, Luminal, Gardenal)	Effective in generalised tonic-clonic, myoclonic and partial seizures. Effective in status epilepticus.	Dose related: drowsiness, lethargy, unsteadiness. Chronic use: tolerance and impairment of concentration & memory, slowness in activities. Withdrawal seizures if discontinued too quickly.
Phenytoin (Epanutin, Dilantin)	Second or third choice in generalised tonic-clonic seizures. Effective in partial & myoclonic seizures. Drug of choice in status epilepticus.	Dose related: nausea, vomiting, unsteadiness, slurred speech. Allergic: rash, hepatitis (inflammation of the liver), swelling of lymph glands. Chronic use: gum swelling, acne, hairiness (face & body), folate deficiency, involuntary movements, rickets.
Sodium valproate (Epilim)	First choice in primary generalised tonic-clonic seizures, typical absence, atonic and myoclonic seizures and photosensitive epilepsy. Effective in partial seizures (second choice after carbamazepine).	Dose related: tremor, sedation, restlessness, increased appetite. Allergic: stomach irritation, inflammation of liver or pancreas. Chronic use: hair loss (usually transient), weight gain, low platelets in blood (may cause excessive bleeding if cut). Should not be taken during pregnancy.
Topiramate (Topamax)	Prescribed for partial seizures, with or without secondarily generalised seizures, inadequately controlled by conventional first line drugs.	Dose related: drowsiness. Loss of appetite and weight may occur.
Valproic Acid (Convulex)	Similar to sodium valproate.	Similar to sodium valproate.