

## Epilepsy

### What is Epilepsy?

Epilepsy is a disorder of the brain which manifests in the form of recurring seizures. The normal electrical brain impulses are disrupted, resulting in disturbed brain cell activity. There are several types of seizures, depending on which part of the brain is affected.

### Who does it affect?

About one person in 100 gets epilepsy at some stage in life. However, most commonly epilepsy starts in childhood or adolescence. Having epilepsy has nothing to do with one's level of intelligence. Everyone is susceptible to epilepsy with 1 in 20 having a seizure at one time in their life.



### What causes it?

*Often, the cause is unknown. There are some factors, though, that can lead to epilepsy:*

- head injuries or trauma
- brain damage before or at birth
- brain infections
- blood clots and brain tumours
- Stroke and degenerative brain disease
- some metabolic or genetic conditions
- toxic conditions, alcohol and drug abuse

*The risk of having an epileptic seizure increases after a head injury.*

### Common Types of Seizures

*If only a part of the brain is affected, the seizure is called a 'partial seizure' and can be:*

- Simple Partial: consciousness is not impaired
- Complex Partial: Inappropriate or purposeless behaviour with subsequent amnesia regarding the episode. Usually last two to five minutes, and may occur one or more times weekly, monthly or annually.

*If the whole brain is affected, the seizure is called a 'generalised seizure' and can be:*

- Absence: A simple staring spell, which is often mistaken for daydreaming. Usually lasts less than a minute, often only several seconds. Seizures may occur repeatedly in one hour.
- Tonic Clonic: Violent shaking of the entire body accompanied by temporary loss of consciousness. Usually lasts about two to five minutes. Seizures may occur as often as one or more times a day, or as infrequently as once or twice a year.

### Significant Signs

People have little trouble recognising a tonic clonic seizure. But keep your eyes open for repeated occurrences of two or more of the symptoms listed below happening together and without variation. They may indicate absence or complex partial epilepsy and if left untreated may interfere with a child's learning.

- Staring spells or daydreaming
- Tic-like movements
- Rhythmic movements of the head
- Purposeless sounds and body movements
- Aimless or dazed walking
- Head dropping
- Lack of response
- Eyes rolling upward
- Chewing and swallowing movements

### Diagnosis

It is important to find the cause of the epilepsy so that the appropriate treatment can be given. Diagnostic tools are first and foremost the descriptions of eye witnesses of a seizure. The person should keep a seizure diary and write down any unusual events,

together with as detailed an account of the seizure as possible (type and length of seizure, time of day).

Past history of accidents, falls, head injuries, possible allergies or stress factors all need to be taken into account. Diagnostic tools include a thorough physical examination, blood tests, EEG (measures brain activity) and CT scans.

## The EEG Test

An EEG or electroencephalogram, is a test, which records the patterns of both normal and abnormal electrical changes from the millions of nerve cells in the brain. It is used as an aid in diagnosing epilepsy and is done to monitor any seizures that may occur. The EEG recording will help the doctor to determine whether the seizure is epileptic or not. If no unusual activity shows up on an EEG it does not necessarily mean that the patient does not have epilepsy.

## What happens in an EEG test?

Electrodes are placed on the patient's head and are connected by wires to the EEG machine. The patient is asked to keep very still as movement can actually hide what is happening.

*The patient is then asked to do simple tasks:*

- to open and close their eyes several times
- to take deep breaths for approximately three minutes
- to look at a flashing light called a stroboscope.

## Effects on lifestyle

People with epilepsy can lead a normal life-style, including participation in most types of sports. However, water sports and other more dangerous activities for epileptics should only be done in the company of others. Showers, rather than baths, are recommended.

A helmet may be advisable for activities like biking and horse riding. If flickering lights are a trigger, then discos, computers and television should be avoided. Alcohol can set off seizures; excess or regular use should be avoided. Unless a person has been free of seizures for at least two years, it is not advisable to drive a motor vehicle.

Many children are teased or excluded from certain groups because of physical appearance or other factors. Sometimes, children may experience teasing due to epilepsy, but often it is the same teasing that all children experience.

Help your child develop a strong self image by encouraging activities that are positive and

successful. Teach strategies for coping with those children who tease.

Encourage your child to accept the fact that some people will not be comfortable with any differences in others and will make fun of them.

## How to Best Care for a Person with Epilepsy during a Seizure

*Simple partial:*

- They usually happen on one part or one side of the body only (depending which part of the brain is damaged). For instance, one arm or leg may go numb. The person is not losing consciousness. Be reassuring and understanding.

*Complex partial:*

- The person seems to be in a trance. They may be walking around but they are not conscious of what they are doing.
- They may have a pattern of behaviour that is very similar from seizure to seizure. The actual seizure may not last longer than five minutes but it could be half

an hour before consciousness is fully regained.

- Be calm and reassuring; guide them gently away from hazards. Do not try and restrain them, they may feel threatened and lash out.

*Absence or petit mal:*

- This is most common in children.
- Consciousness is lost for only very brief moments and looks like day-dreaming. It can cause problems with learning at school.

*Atonic:*

- These seizures involve a loss of muscle tone and the person will crumple or fall to the ground, quite often injuring themselves.

*Myoclonic:*

- This is a series of brief, involuntary muscle contractions. The jerks may be rhythmic.
- This type of seizure only lasts a few seconds in which consciousness is not lost.

*Tonic Clonic or Grand mal:*

- The person stiffens and becomes unconscious and falls to the ground then a series of convulsions start.
- Bladder and/or bowel control can be lost.
- Sometimes, there is a 'cry' when the air is forced out of the lungs.
- The seizure usually lasts five minutes after which the person slowly recovers consciousness.
- Usually the person will sleep for some time after the seizure. After a period of rest most people resume their usual activities.

Seizures can be preceded by an 'aura' which will give the person some warning and allow them to get to a safe place or position.

- Do not try to restrain the person. There is nothing you can do to stop a seizure once it has begun. It must run its course.
- Do not interfere by putting things into the person's mouth or trying to stop them moving. The tongue cannot be swallowed.
- Clear the area around the person so that they do not injure themselves on hard or sharp objects and put something soft under their head.
- After the convulsions, the person should be placed in the recovery position.

#### *Status Epilepticus:*

- When a person does not regain consciousness between seizures or several seizures follow one another.
- Medical help must be called immediately as this is a medical emergency.

## Prevention of Epilepsy

Anyone can develop epilepsy at any time from head injuries, certain poisonous substances, brain infections and other causes.

#### *Some ways in which you can avoid epilepsy are:*

- Use a helmet when riding a motorcycle or other open vehicle.
- Use protective headgear in sports.
- Drive safely on the roads and use seat belts.
- Avoid taking unnecessary risks when driving or climbing.
- Use drugs only as directed by your doctor.
- Consult your doctor when a fever is very high or when it lasts longer than usual.

## Prevention of Seizures

#### *The following are a few tips on how to prevent increasing the risks further:*

- Make sure you have enough sleep. Don't stay up late or get over tired.
- Make sure you eat well and regularly.
- Avoid using video games that have vivid colours and flashing lights. They can cause seizures in people who have not had a head injury.
- Seek help if you are stressed or worried.
- Drink less alcohol.
- Take it easy when exercising.
- Keep an even body temperature e.g. put on a coat when moving from a hot house to a cold and frosty outdoors.

## Treatment

Treatment is often started with one type of medication (anti-convulsant) only, aimed at controlling the seizures. If no effective seizure control is achieved that way, a second drug is used in combination. It will take some time for the drugs to reach their therapeutic level in the blood, and often blood tests are done to

monitor this. It is therefore important to stick with the medication exactly as it has been prescribed. Stopping drugs suddenly can result in increased seizures. Sometimes, the drug will be replaced by another one if the side-effects become intolerable. The list of side-effects is quite long for most medications and most commonly include drowsiness, dizziness, lethargy, sometimes hyperactivity in children, rashes and allergies, and occasionally seizures! There are some people, however, for whom seizures cannot be controlled by drugs.

## Where to go for Support

### Epilepsy Association of New Zealand

The group has an office in the Cramner Centre, Christchurch. They have a large selection of brochures and pamphlets on a variety of aspects of epilepsy, including charts to record seizures. They produce an informative newsletter and have field officers who will come to the home or speak about epilepsy to community groups and schools. The group also offers activities and outings for people with epilepsy. If your caree suffers from seizures, this group is certainly worth contacting.

For more information phone 03 379 8175

### Caring for Carers

Joining a carer support group can relieve some of the stress you are under as a carer. The constant tasks, the concerns, grief, drama, moments of joy, frustration and exhaustion are all part of the day to day existence of a carer.

Feelings of helplessness, fear, anger, guilt and despair are all normal. It is important that the carer has an outlet for these feelings, like having someone to talk to. The chance to share with others who understand and are also, or have been carers lightens the load and may be all that is needed. *Caring for Carers* provides support to carers by providing a way to communicate feelings that it would not be appropriate to discuss with friends, family or the caree.

*Caring for Carers* has a Newsletter and several support meetings each month and ongoing telephone support. These services are provided to help make your job easier.

*Caring for Carers* is situated:

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 221 Gloucester Street, Christchurch.  
 Postal address: P O Box 13 167, Christchurch  
 Phone: 377 8426  
 Fax: 377 8420  
 Email: caringforcarers@xtra.co.nz