

# **EPILEPSY**

### **IMPACT ON QUALITY OF LIFE**

People with epilepsy are often faced with stigmatization and discrimination leading to social isolation, emotional distress, dependence on family, poor employment opportunities, and personal injury. <sup>7</sup> There is also a link between epilepsy and learning disability. Up to 60% of patients with severe learning disabilities have epilepsy. <sup>1</sup>

### **CAN EPILEPSY BE TREATED?**

Anti-epileptic drugs (AEDs) are the main form of treatment, but should be taken only once the diagnosis is confirmed. AEDs may stop seizures from happening, but they do not cure epilepsy. Medication should always be tailored to the type of epilepsy, lifestyle and possible side effects. <sup>1, 2</sup> With the right AEDs, up to 70% of epileptics could control seizures (have them stopped). <sup>2, 7</sup> That said, 20% of patients do not respond to medication.<sup>1</sup>

Starting treatment with anti-epileptic drugs after the first seizure decreases the chances of a second seizure compared with no treatment or delayed treatment.<sup>7</sup> In addition, people who have been seizure free for at least two years can consider stopping AED treatment. Patients withdrawing from medication should not drive during the withdrawal and for six months afterwards.<sup>1</sup> Epilepsy is considered resolved if a person has been seizure-free for ten years, with at least five of those years without anti-epileptic medicines.<sup>12</sup>

### **EPILEPSY AND PREGNANCY**

During pregnancy anti-epileptic medication can harm the unborn child, although uncontrolled seizures put both mother and child at risk. For this reason, women with epilepsy need to make informed decisions with their doctor and partner about contraception, conception, pregnancy, caring for children and breastfeeding. <sup>1,4</sup> A class of medication called enzyme-inducers can reduce the effectiveness of combined oral contraceptives, so additional precautions may be necessary.<sup>1</sup>

Please Note: This is an educational information leaflet only and should not be used for diagnosis. For more information on epilepsy and neurological illness, consult your healthcare professional.

References: 1. Aylward RLM. Epilepsy: a review of reports, guidelines, recommendations and models for the provision of care for patients with epilepsy. Clin Med 2008;8:433-438. 2. Did you know? Epilepsy Society. [online] 2011, May. [cited 2014, December 25]. Available at http://www.epilepsysociety.org.uk/epilepsy-didyou-know#.VLZnlXtJdTs 3. Engel J. Concepts of Epilepsy. Epilepsia 1995;36(Suppl. I):S23-S29 4. Jackson MJ. Concise guidance: diagnosis and management of the epilepsies in adults. Clinical Medicine 2014;14(4):422-7. 5. Wehrle, L. Epilepsy: its presentation and nursing management. Nursing Times. 2003; 99(20): 30-33. 6. Causes of epilepsy. Epilepsy Society. [online]. [cited 2014, December 25]. Available at http://www.epilepsysociety.org.uk/causes-epilepsy#.VLZpiHtJdTs. 7. Schmidt D, Schachter SC. Drug treatment of epilepsy in adults. BMJ 2014;348:g2546. 8. Camfield P, Camfield C. Modes of onset of epilepsy and differential diagnosis. In: Handbook of Clinical Neurology, Vol. 111 (3rd series) Pediatric Neurology Part I. O. Dulac, M. Lassonde, and H.B. Sarnat, editors. Elsevier. Chapter 48. 9. Sirven JI. Classifying Seizures and Epilepsy: A Synopsis. Seminars in Neurology 2002;22(3):237-246. 10. Rabinstein AA. Management of Status Epilepticus in Adults. Neurol Clin 2010;28:853-862. 11. De Waele L, Boon P, Ceulemans B, Dan B, Jansen A, Legros B, et al. First line management of prolonged convulsive seizures in children and adults: good practice points. Acta Neurol Belg 2013;113:375-380. 12. Fisher RS, Acevedo C, Arzimanoglou A, Bogacz A, Cross JH, Elger CE, et al. A practical clinical definition of epilepsy. Epilepsia 2014;55(4):475-482.





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## **EPILEPSY**

### **WHAT IS EPILEPSY?**

Epilepsy, the most common of the serious neurological conditions, is marked by repeated seizures that start in the brain.<sup>1, 2, 3</sup> It is diagnosed after a person has had more than one seizure. All people having a seizure for the first time should see a specialist as soon as possible for diagnosis and treatment. <sup>2, 4</sup> About 70% of epileptics become seizure-free if they have the correct diagnosis and treatment. <sup>5</sup>

### WHAT CAUSES EPILEPSY?

Epilepsy is a complex disease with multiple causes. Sometimes an exact cause cannot be found.<sup>1,6</sup>

#### Three main groups: <sup>1, 6</sup>

Symptomatic epilepsy is caused by head injury, infections (e.g. meningitis), the brain not developing properly, stroke, tumour or genetic conditions. Idiopathic epilepsy is genetic and can be inherited from one or both parents. Cryptogenic epilepsy has an unknown cause. <sup>6</sup>

### **WHO IS AFFECTED?**

Worldwide about 65 million people have epilepsy, making it the most common neurological disorder after stroke. <sup>1,7</sup> Starting at any age, it is often diagnosed in people under 20 and over 60. Causes such as birth difficulties, childhood infections or accidents are more common in young people. In older people, strokes can lead to epilepsy. <sup>2,4</sup>

There is a 50% chance of having another seizure after the first. Once a person experiences two seizures, the chance of having another, the risk of recurrence appears to be at least 80%.  $^{\circ}$ 

### HOW DO PEOPLE WITH EPILEPSY PRESENT?

A seizure is a sudden involuntary change in perception or behaviour. Epilepsy seizures are recurring and are caused by a change in the brain. <sup>9</sup>

Seizures can present in a number of ways; simple or complicated, short or long lasting, they may affect consciousness, and may include other symptoms (examples below).  $^{\circ}$ 

The form a seizure takes depends on where in the brain it starts and how far it spreads.  $^{\scriptscriptstyle 5}$ 

<b>Partial seizures</b> * Originate in one of the lobes of the brain <sup>5</sup>	
Simple partial seizures <sup>5</sup>	May experience an aura, or warning - a sensation in the stomach (epigastric sensation) Do not lose consciousness Some report a tingling or numbing sensation or flashing lights
Complex partial seizures <sup>5</sup>	Appears blank, stares, unaware of his/ her surroundings and may be unable to communicate verbally May be abnormal movement of the upper and lower limbs (called posturing) and the head may turn to one side May fall if standing Involuntary movements also known as automatisms may be different in each person. Examples of these are: Making noises, meaningless sounds, grunts, whistling noises, word or sentence repetition Unexpectedly walking or running about the room quickly Chewing movements, lip smacking, swallowing movements Fiddling with hands, clothes and objects, or may tap, pat or rub objects

#### **Generalised seizures** \* Both hemispheres of the brain <sup>5</sup>

Typical absence seizures <sup>5</sup>

Suddenly stop activity and lose consciousness for the duration of the seizure Many absence seizures go unnoticed

#### Myoclonic seizures <sup>5</sup>

Brief contraction of a muscle, muscle group or several muscle groups, experienced as either a single jerk, a cluster of jerks or a continuous spasm

Jerking motion sometimes strong enough to throw a person off a chair or to the floor if standing

#### Atonic seizures <sup>5</sup>

Result of sudden loss of the muscle tone responsible for posture If standing, person drops to the floor, or slumps if seated

Loses consciousness for a split second; in most cases can get up again straightaway

#### Tonic seizures <sup>5</sup>

Sudden increased muscle tone causes muscles to contract

Neck extends, but does not move to either side, arms and shoulders are raised Hands are clenched in a fist shape or open with fingers extended outwards Eyes are open and eyeballs rotate upwards, legs extend outwards

Breathing muscles force air out of the lungs, causing loss of consciousness

#### Tonic clonic seizures <sup>5</sup>

Convulsions can last for up to 60 seconds - then get weaker and slow down Difficulty breathing

Produce more saliva, which may be seen as frothing at the mouth

A period of rest after seizure - muscles relax and become limp

#### **MEDICAL EMERGENCY SEIZURES**

Status Epilepticus is a medical emergency characterised by a single seizure or continuous seizures, which last for 30 minutes or longer. <sup>1, 10</sup>

If a convulsive seizure lasts longer than five minutes, the following steps should be taken while waiting for emergency medical personnel: <sup>11</sup>

- Check that the mouth is empty
- Position the head and body to free the airway
- Put your cheek near their mouth to feel for breath and check the chest to see if they are breathing if not breathing, or gasping only, cardiopulmonary resuscitation (CPR) should be given
- Remove objects that could hurt the person, loosen tight clothes and ensure the environment is safe