



## FEATURE STORY: NOCTURNAL SEIZURES

Nocturnal seizures are seizures that occur whilst sleeping. Nocturnal epilepsy is when someone with epilepsy has seizures exclusively during sleep. A number of common forms of epilepsy predominantly and sometimes exclusively present with seizures in the nocturnal state. Some nocturnal seizures may only occur, or be triggered in certain stages of sleep. Some occur upon awakening.



Depending on the type of epilepsy, if someone with nocturnal seizures becomes considerably sleep deprived, or deviates from their usual sleep patterns, then seizures may occur during wakefulness or during or after a daytime nap. This can have significant ramifications on being able to obtain and retain a driver's license, which then has broader effects, so routine and regular sleep patterns are potentially even more important for people who have nocturnal seizures.

### Diagnosing can sometimes be difficult <sup>(1)</sup>

Diagnosis of nocturnal seizures can be difficult. Firstly, the person may be unaware they are having seizures. Secondly, nocturnal seizures are far less likely to be witnessed so a complete description is often lacking. Sometimes movements made during sleep may be observed by a partner or parent but can appear no different from those typical of normal sleep, or confused with other events. Thirdly, even if seizures are witnessed, they are sometimes mistaken for other events.<sup>(2)</sup>

Both seizures and sleep disorders, particularly parasomnias can be sporadic, and in many cases have similar presentation.

### Approach to diagnosis

As with nearly all cases involving epilepsy, a careful history is by far the most important part of making a diagnosis. In the case of nocturnal seizures, it is important to obtain video EEG of the seizure to confirm diagnosis.

### Ramifications of nocturnal seizures

Nocturnal seizures, even brief focal seizures, have been shown to profoundly disrupt sleep structure for a prolonged period of the night. This can consequently cause daytime sleepiness and concentration difficulties the following day. Many people who have only nocturnal seizures report difficulty concentrating or even total inability to work on the days following a seizure.<sup>(3)</sup>

(1) <http://www.iowasleepcenter.com/sleep-disorders/nocturnal-seizures/>

(2) [http://columbianeurology.org/sites/default/files/nocturnal\\_seizures\\_SemNeurol\\_2004.pdf](http://columbianeurology.org/sites/default/files/nocturnal_seizures_SemNeurol_2004.pdf)

(3) [http://columbianeurology.org/sites/default/files/nocturnal\\_seizures\\_SemNeurol\\_2004.pdf](http://columbianeurology.org/sites/default/files/nocturnal_seizures_SemNeurol_2004.pdf)

There are many risks associated with nocturnal seizures including injury, suffocation and \*SUDEP. It is often also very difficult to know how long a seizure has been going or has lasted.

Gaining seizure control leads to improved sleep.

### **Common sleep occurrences which are normal**

- **Sleep starts** - happen to nearly everyone at some stage, and consist of a sudden, involuntary strong jerk upon falling asleep and can occasionally be associated with a brief dream image, such as that of falling. Sleep starts can be exacerbated by sleep deprivation or by excessive use of stimulant medications, including caffeine. They are also called a hypnic or hypnagogic jerk. For more on sleep starts go to <http://www.sleepeducation.org/news/2013/08/22/sleep-starts>
- **Sleep drunkenness or confusional arousals** - is when there is prolonged confusion upon awakening or being awoken from deep (non-REM) sleep. People (typically children) may get out of bed, stumble while walking, and have slurred or incomprehensible speech. They aren't consciously aware of what they are doing and have no memory of the event. This is more likely to happen with sleep deprivation, disrupted sleep, hypnotic medication or when someone is physically awoken. For more on sleep drunkenness go to <http://www.sleepeducation.org/sleep-disorders-by-category/parasomnias/confusional-arousals/overview-and-facts>

### **Sleep disorders**

There are many sleep disorders. Sometimes they may be mistaken for seizures or vice versa. Common sleep disorders that may instigate the Doctor to order an EEG are:

- Night terrors
- Sleep parasomnias
- Sleep apnoea
- Periodic leg movements, restless leg syndrome
- Sleep walking, bed wetting
- Nightmares
- Narcolepsy
- REM behaviour disorder
- For more information go to <http://www.sleepeducation.org/sleep-disorders-by-category>

### **How do I know if I'm having nocturnal seizures?**

People who have nocturnal seizures may wake up and notice unusual circumstances and symptoms. They may simply wake up feeling unrefreshed and tired, and function poorly all day. Or there may be more convincing factors such as a bad headache, soreness, muscle strain or weakness, having wet the bed, having bitten the tongue, bruises or injury, or simply fatigue or light-headedness. Sometimes people can be in an unusual mood that may usually happen after a seizure. Other signs include objects near the bed may have been knocked to the floor, or the person may be even find themselves on the floor or in the bed in an unusual manner.

If any of these things happen to you, then it is worth getting it investigated. Bear in mind that some sleep disorders and parasomnias can also cause some similar symptoms.

## Syndromes of nocturnal seizures

Although many seizure types can happen during sleep, some epilepsy syndromes have a particularly strong tendency to have nocturnal seizures. These include:

1. Juvenile myoclonic epilepsy,
2. Epilepsy with generalised tonic clonic seizures (GTCS) alone,
  - a. (previously known as epilepsy with grand mal seizures on awakening),
3. Childhood epilepsy with centro-temporal spikes,
  - a. (previously called Rolandic epilepsy),
4. Certain focal seizures also have a relationship to sleep, particularly frontal onset seizures.

Less commonly seen are:

- Electrical status epilepticus of sleep (ESES), and <https://www.epilepsy.org.uk/info/syndromes/electrical-status-epilepticus-during-slow-wave-sleep-eses>
- Landau-Kleffner syndrome (LKS) [http://www.medicinenet.com/landau-kleffner\\_syndrome/article.htm](http://www.medicinenet.com/landau-kleffner_syndrome/article.htm)

### 1. Juvenile myoclonic epilepsy (JME)<sup>(4)</sup>

This syndrome is one of the most common genetic generalised epilepsies and a hallmark sign is the person typically has myoclonic jerks after awakening. GTCS may also occur. Typical absence seizures may also occur, but these are infrequent and brief. Photosensitivity is common. JME occurs in an otherwise normal adolescent or adult.

#### Key points<sup>(5)</sup>

- Myoclonic seizures can be subtle and overlooked for years as simple clumsiness but for some people can be considerably debilitating.
- Seizures tend to occur early morning shortly after waking up, although some people may have a second peak of occurrence in the early evening. Seizures may also occur after a daytime nap.
- Although JME has been regarded a lifelong condition, recent studies have shown that some people become seizure free off medication.
- Most people gain full seizure control with medication.
- Lifestyle changes such as avoiding sleep deprivation and drinking alcohol are integral to seizure control.
- Prognosis and outlook is good.

### 2. Epilepsy with generalised tonic clonic seizures (GTCS) alone<sup>(6)</sup>

This syndrome is a common genetic generalised epilepsy. People have infrequent generalised tonic clonic seizures from the second decade of life, typically provoked by sleep deprivation.

#### Key points<sup>(7)</sup>

- GTCS may occur at any time though most typically happen after awakening.
- Sleep deprivation and drinking alcohol are major triggers of seizures in this syndrome. Some people may never have GTCS in the absence of these stimuli.
- Response to antiepileptic drugs is usually excellent.
- Prognosis varies from excellent, to lifelong continuing GTCS.

(4) <https://www.epilepsydiagnosis.org/syndrome/jme-overview.html>

(5) [http://www.medlink.com/article/juvenile\\_myoclonic\\_epilepsy#Delgado-Escueta\\_and\\_Enrile-Bacsal\\_1984](http://www.medlink.com/article/juvenile_myoclonic_epilepsy#Delgado-Escueta_and_Enrile-Bacsal_1984)

(6) <https://www.epilepsydiagnosis.org/syndrome/eqtcsa-overview.html>

(7) [http://www.medlink.com/article/epilepsy\\_with\\_generalized\\_tonic-clonic\\_seizures\\_alone#](http://www.medlink.com/article/epilepsy_with_generalized_tonic-clonic_seizures_alone#)

### 3. *Childhood epilepsy with centro-temporal spikes*<sup>(8)</sup>

This is the most frequent epilepsy syndrome seen in children between the ages of 4 and 13 years who are otherwise showing normal development. It invariably remits during adolescence. The seizures are focal and involve twitching, numbness or tingling of the child's face or tongue, which may secondarily generalise to GTCS if they occur nocturnally.

#### Key points

- The syndrome represents about 15 percent of all epilepsies in children.
- Seizures last no more than 2 minutes and the child remains fully aware throughout.
- Seizures can occur during wakefulness, but exclusively begin during sleep in about 50-75% of people.
- Seizures can be triggered by sleep deprivation.
- Because the seizures may be infrequent and usually occur at night, many children do not take medication.
- Medication may be prescribed if a child has daytime seizures, frequent seizures, a learning disorder, or some cognitive problems.
- In almost every case, seizures stop on their own by age 15.
- It is not totally benign and many reports have highlighted these children can have specific cognitive disorders.

### 4. *Focal seizures*<sup>(9)</sup>

Focal seizures tend to occur during both sleep and wakefulness, although frontal lobe seizures tend to be more influenced by sleep. Studies in people with epilepsy support that frontal lobe seizures occur more frequently during sleep compared with temporal lobe seizures.

#### Key points<sup>(10)</sup>

- Over 40% of focal seizures occur during sleep
- Frontal lobe seizures are most likely to occur in sleep
  - Frontal lobe seizures can be characterised by sudden awakenings with unusual positioning or movements, complex behaviour, sometimes even violent behaviour and bed wetting.
- Temporal lobe seizures are more likely to evolve into a GTCS if they occur in sleep
- Over 90% of focal seizures that occur during sleep happen in the early stages of sleep

#### **Treatment**

Like other forms of epilepsy, nocturnal seizures are treated with antiepileptic drugs (AEDs). However, some AEDs can affect sleep structure so AED choice is important. Notably, the choice of AED for a person is the one that is the most effective for seizure control, given that adverse side effects are tolerable. Dosing times should also be considered, possibly taken just before bedtime if seizures are occurring during sleep.

(8) <https://www.epilepsydiagnosis.org/syndrome/ects-overview.html>

(9) [http://columbianeurology.org/sites/default/files/nocturnal\\_seizures\\_SemNeurol\\_2004.pdf](http://columbianeurology.org/sites/default/files/nocturnal_seizures_SemNeurol_2004.pdf)

(10) <http://www.ncbi.nlm.nih.gov/pubmed/11402100>



### Finally

Good-quality sleep is an important influence on general health and is frequently overlooked, but it is particularly essential to people with epilepsy. Disrupted sleep can result not only in poor daytime functioning but also potentially in worsening epilepsy. Some AEDs have detrimental effects on sleep, particularly the less commonly used benzodiazepines and barbiturates but also phenytoin and, possibly, carbamazepine. Others, notably gabapentin, seem to actually improve sleep quality. <sup>(11)</sup>

Therefore the choice of an appropriate AED should be one that not only determines whether seizures are controlled, but also whether the person performs in the best possible capacity on a daily basis.

*\*SUDEP is the sudden, unexpected death of someone with epilepsy, who was otherwise healthy. No other cause of death is found when an autopsy is done.*

### Further Reading

- Nocturnal Seizures  
[http://columbianeurology.org/sites/default/files/nocturnal\\_seizures\\_SemNeurol\\_2004.pdf](http://columbianeurology.org/sites/default/files/nocturnal_seizures_SemNeurol_2004.pdf)
- Effects of AEDs on sleep structure  
[http://columbianeurology.org/sites/default/files/effects\\_AEDs\\_on\\_sleep\\_CNS\\_drugs.pdf](http://columbianeurology.org/sites/default/files/effects_AEDs_on_sleep_CNS_drugs.pdf)
- Distribution of partial seizures during the sleep-wake cycle  
[http://columbianeurology.org/sites/default/files/Herman\\_Neurology\\_seizures\\_sleep\\_wake\\_2001.pdf](http://columbianeurology.org/sites/default/files/Herman_Neurology_seizures_sleep_wake_2001.pdf)
- Epilepsy the night thief.  
<https://go.aastweb.org/Resources/A2Zzz/Literary%202010%20Wells.pdf>
- Epilepsy Imitators <https://www.epilepsydiagnosis.org/epilepsy-imitators.html>

(11) [http://columbianeurology.org/sites/default/files/effects\\_AEDs\\_on\\_sleep\\_CNS\\_drugs.pdf](http://columbianeurology.org/sites/default/files/effects_AEDs_on_sleep_CNS_drugs.pdf)

## FEATURE STORY: CONCUSSION

Concussion is a short lived brain injury that may be caused by either a direct or indirect blow to the head, face, neck or body. It is essentially a mild traumatic brain injury that is at the less severe end of the brain injury spectrum.

Australia is a proud sporting nation and concussion is a relatively common injury in many sporting and recreational activities. Sports such as Australian rules football, rugby league and rugby union have amongst the highest rates of concussion of any team sports in the world with about five concussion injuries per team per season, regardless of the level of competition. Also, when males and females participate in the same sports with similar rules, the reported incidence of concussion is higher among females than males. <sup>(1)</sup>

### How it happens

A concussion injury can be thought of as having two parts: 1) the initial insult followed by 2) an inflammatory response. The initial insult triggers a release of excitatory neurotransmitters, which leads to the loss of cell wall reliability. This in turn leads to changes in the body's electrolyte balance. This is the time a [concussive convulsion](#) can occur.

As injured cells die they intensify the inflammatory process leading to secondary injury. This inflammatory response also compromises blood flow to that area of the brain, disrupting the delivery of blood and nutrients crucial to healing, meaning the needs of the injured cells are not met. After an acute injury, the metabolic needs of the nerve (brain) cells are very high but the structures required to meet these needs are also impaired. This results in cell damage.

This cell injury may explain why concussive symptoms can worsen during the first 24 to 72 hours after the initial injury. The result is a decrease in brain function during the first few days after the concussion.

However, given sufficient time and energy to recover, the nerve cells can restore function and remain viable.

### Complications

The brain is at increased susceptibility while recovering from a concussion. A repeat injury may happen with less force, take longer to resolve, and in rare cases lead to catastrophic results such as [second impact syndrome](#) (which is particularly prevalent in adolescents whose brains are still developing). <sup>(2)</sup>

People are more likely to suffer prolonged symptoms or experience other complications if they have:

- A high number of concussions, long duration (>10 days), high severity
- Prolonged loss of consciousness (>1 min), memory loss
- Concussive convulsions
- Repeated concussions over time
- Concussions close together in time

(1) [http://sma.org.au/wp-content/uploads/2015/09/SMA-Position-Statement\\_Concussion-190815.pdf](http://sma.org.au/wp-content/uploads/2015/09/SMA-Position-Statement_Concussion-190815.pdf)

(2) <http://www.ncbi.nlm.nih.gov/books/NBK185336/>

- Repeated concussions occurring with progressively less impact force or slower recovery after each successive concussion
- Migraine, depression or other mental health disorders, attention deficit hyperactivity disorder, learning disabilities, and sleep disorders
- Medications such as psychoactive drugs, anticoagulants
- Involvement in sports that involve high-risk activity, contact and collision sport, at a high level and a dangerous style of play
- Or if they are a child or adolescent (<18 years old)

For signs of concussion go to Sports Medicine Australia's pocket concussion tool:

[http://sma.org.au/wp-content/uploads/2013/08/2013\\_Pocket\\_Concussion\\_Recognition\\_Tool\\_CRT\\_.pdf](http://sma.org.au/wp-content/uploads/2013/08/2013_Pocket_Concussion_Recognition_Tool_CRT_.pdf)

Surveys of retired professional athletes show some evidence that a history of multiple concussions also increases the risk for depression. <sup>(3)</sup>

## CONCUSSIONS AND SEIZURES

### What are concussive convulsions?

Concussive convulsions are non-epileptic seizures which are an immediate consequence of a concussive brain injury. They are uncommon, and only happen in about 1 in 70 concussions, but these seizures are often confused with post-traumatic epilepsy which may occur with more severe structural brain injury. Concussive convulsions happen within seconds of impact and have no known long term consequences and are not known to develop into epilepsy. Although dramatic, they are relatively straightforward to manage and are done so in the same way as managing a seizure and concussion. <sup>(4)</sup>

### Post traumatic epilepsy

Post traumatic epilepsy is generally not linked with concussion.

Brain injury happens when the nerve cells in the brain are damaged. This can be caused by internal or external means. When the damage is related to an external physical trauma, the term traumatic brain injury (TBI) is used. Motor vehicle accidents, firearms, falls, sports, and physical violence are the leading causes of TBI.

Generally, seizures after TBI can happen early (within one week of the injury) or later. Early seizures are treated quickly because they may cause further damage to the brain. Later seizures, those that begin at least one week after the injury, are more likely to develop into epilepsy.



TBI is the most significant cause of symptomatic epilepsy (epilepsy of known cause) in young people. The likelihood of developing (post-traumatic) epilepsy after a TBI is higher with greater severity of the injury, for example penetrating head injuries, when there is intracranial bleeding, depressed skull fractures, a coma lasting more than 24 hours, and early seizures. <sup>(5)</sup>

(3) <http://www.ncbi.nlm.nih.gov/books/NBK185336/>

(4) <http://www.ncbi.nlm.nih.gov/pubmed/9519401>

(5) <http://www.epilepsy.com/article/2014/6/understanding-post-traumatic-epilepsy>

## Concussion Management

Someone who has sustained a concussion should always see a doctor to be assessed medically. However, the appearance of symptoms or deficits might be delayed for several hours following concussion so the person should not be left alone.

Most concussions resolve within a 7-10 day period although the recovery time may be longer for children under 18 years of age.

Physical *and* mental rest until the acute symptoms improve, usually 24-48 hours, are the foundation of concussion management. A sensible approach involves the gradual return to school and social activities when the person is symptom free, in a way that does not result in a significant exacerbation of symptoms.

Concussion symptoms should be fully resolved and the person should get medical clearance before returning to any physical activity - and the return should be gradual. Returning to sport also depends upon the nature of the sport.

For sports specific concussion policies see <http://sma.org.au/resources-advice/concussion/>

Timely diagnosis and prompt treatment are crucial to help prevent more serious potential complications, including further brain trauma or a prolonged recovery. Along with physical and mental rest, limit or avoid any activity that provokes symptoms so as not to make the symptoms worse or potentially prolong recovery.

## Long-term consequences of concussion

There is increasing concern that head impact exposure and recurrent concussions contribute to long-term neurological problems including [chronic traumatic encephalopathy](#) (CTE) and chronic [neurocognitive impairment](#) (CNI).

Whether repetitive head impacts and multiple concussions sustained in youth lead to long-term degenerative disease of the brain, such as chronic traumatic encephalopathy (CTE) or dementia, remains unclear. There is limited information and mixed findings on long term consequences of repeated concussions, and many studies have been retrospective, so research in this area is needed and increasing.

Although studies are providing an indication that the brain is affected by concussion, CTE is a very controversial condition that is still not well-understood. Researchers do not yet know the frequency of CTE in the population and do not understand the causes. There is no cure for CTE.

This is not time to panic. Simply because you've had a concussion does not mean you will go on to develop these conditions later in life. Research has so far shown that many athletes with a limited number of injuries have continued on to be high-functioning adults. There are other influences to also consider - various lifestyle and environmental factors, such as smoking, alcohol consumption, drugs, physical exercise, family history (genetics), mental "exercises", and even how their brain is structured, and that "concussion may only be one small factor." <sup>(6)</sup>

(6) <http://www.momsteam.com/concussion-has-long-term-effect-cognitive-function-visual-processing-studies-find>

### **Concussion information**

- Sports Medicine Australia <http://sma.org.au/resources-advice/concussion/>
- Heads Up – brain injury awareness <http://www.cdc.gov/HeadsUp/>
- Cleveland Clinic [https://health.clevelandclinic.org/2016/01/a-closer-look-at-concussion-what-you-should-know/?utm\\_campaign=competitive+edge&utm\\_medium=email&utm\\_source=comped-ge1603&utm\\_content=concussions](https://health.clevelandclinic.org/2016/01/a-closer-look-at-concussion-what-you-should-know/?utm_campaign=competitive+edge&utm_medium=email&utm_source=comped-ge1603&utm_content=concussions)
- Facts about concussion and brain injury [http://www.brainline.org/content/2009/06/facts-about-concussion-and-brain-injury\\_pageall.html](http://www.brainline.org/content/2009/06/facts-about-concussion-and-brain-injury_pageall.html)
- ABC Why acquired brain injuries matter <http://www.abc.net.au/radionational/programs/allinthemind/why-acquired-brain-injuries-matter/7306812>

**Second-impact syndrome (SIS)** occurs when the brain swells rapidly, and catastrophically, after a person suffers a second concussion before symptoms from an earlier one have subsided.

**Chronic traumatic encephalopathy (CTE)** is the term used to describe brain degeneration likely caused by repeated head traumas. CTE is a very rare condition. It has been found in the brains of people who played contact sports, such as football, as well as others. Some symptoms of CTE are thought to include difficulties with thinking (cognition), physical problems, emotions and other behaviours. CTE is a diagnosis only made at autopsy by studying sections of the brain.

**Cognitive impairment** is when a person has trouble remembering, learning new things, concentrating, or making decisions that affect their everyday life. Cognitive impairment ranges from mild to severe.

## IN THE NEWS THE LATEST ON EPILEPSY

### Link between SUDEP and the heart

Researchers from University of Sydney and the Centenary Institute have released the results from the world's largest genetic study into sudden unexpected death in epilepsy (SUDEP), revealing a possible genetic link between the heart and the brain in epilepsy patients. They found that a sizeable proportion of SUDEP cases have clinically relevant mutations in cardiac arrhythmia (irregular heart beat) and epilepsy genes. For more go to <http://sydney.edu.au/news-opinion/news/2016/04/08/getting-to-the-heart-of-sudden-death-in-epilepsy.html>



### Moving closer to medicinal cannabis

The Victorian government became the first in Australia to legalise medicinal cannabis, passing the Access to Medicinal Cannabis Bill, to give patients legal access to the drug in exceptional circumstances. Children with severe epilepsy will be given the first access to the drug, grown and cultivated by the government, from early 2017. For more go to <http://www.northerndailyleader.com.au/story/3852347/a-step-in-the-right-direction/>

### Oral contraceptive can increase risk of seizures

A new study has identified a specific component of hormonal contraceptives that could be responsible for an increased seizure risk. For more information <https://www.epilepsyresearch.org.uk/oral-contraceptives-may-increase-seizure-risk-in-women-with-epilepsy/>



### Self monitoring epilepsy app – world first

The world's first epilepsy self-monitoring app, EpSMon has been developed with the help of a Cornwall-based doctor, Dr Rohit Shankar, and has been shortlisted for three awards.

The app brings lifesaving information to the fingertips of adults with epilepsy by asking questions about a person's seizures, medication and overall wellbeing, then analyses the answers and identifies risks. For more go to <https://www.sudep.org/epilepsy-self-monitor>

### Prince, 1958 – 2016

Talented musician Prince, had epilepsy since birth.

<http://www.9news.com.au/world/2016/04/22/13/58/how-prince-opened-up-to-richard-wilkins-when-the-cameras-stopped-rolling>

## Q&As OUR SERVICE PROVIDERS ANSWER YOUR QUESTIONS



***Q: I'm having trouble with seizures after trying many different types of medication combinations. I think I'm going to get a second opinion, but not sure how to go about it.***

A: Unfortunately not everyone gets the best seizure control or they may not be happy with their treatment, or doctor. Some types of epilepsy are difficult to manage. In these circumstances, obtaining a further opinion makes sense. Sometimes your neurologist is happy for you to seek a second opinion and will refer you to a colleague. If you are not comfortable asking the neurologist for a referral, you can go to your GP and get a referral to an independent neurologist.

It may be worth doing some investigating and seek someone out who specialises in epilepsy.

A different viewpoint can benefit you. Doctors do vary in their opinions of treatments and their approach to patients, so go to the consult armed with a list of questions. Either the second doctor will give similar advice to your first, which can be reassuring that you are receiving the best possible treatment already, or they may come up with a different approach.

Living with poorly controlled seizures impacts almost every aspect of your life. You are entitled to seek the best possible treatment approach for your epilepsy.

***Q: I'm interested in getting my son a seizure assistance dog but not sure how to go about it. Is there a process?***

A: Seizure assistance dogs can be any type of dog. Many seizure assistance dogs are able to detect its owners seizures, warn and aid that person. Sometimes this can happen with a pet, particularly if that dog has a strong bond with the person with epilepsy already. Many pet dogs seem to pick up that something is going to happen. If you want to register them as a seizure dog, they need to be trained properly, mostly for behavioural management. There are a few ways you can look at getting a seizure assistance dog; it may differ from state to state.

There are programs that train assistance dogs, but waiting times can vary from about 9 months to 2.5 years. On the plus side, you usually don't have to pay for the dog, vet costs may be subsidised, and you know you are getting a completely trained dog. You will have to travel to the part of Australia it has been trained in to get to know the dog and to be trained yourself, which lasts about two weeks, and that can cost. You then take the dog home with you. You will also need to maintain the dog's training yourself. If you don't, the dog will get slowly sloppier over time. So no matter how you get the dog, there is always some training involved.

Another way to get an assistance dog is to find a suitable dog yourself, and then use a program that helps you train your dog to be an assistance dog. They will test your dog at the beginning to see if it is suitable before you begin the training. Many are not, so you may want some advice first.

This may be more expensive, but it will likely be faster - especially if you already have a family pet that will be able to take on the role, or if you find a suitable mature dog. A mature dog of about the ideal age of 18 months to 3 years can learn a basic assistance job in 6 to 9 months. If you expect it to learn lots of complex jobs, expect a bit longer.

You can also train your existing pet if it is already detecting seizures. There is a lot of help out there, and once you train the dog, you can then get it recognised (there is an assessment process) as an assistance dog so it can go everywhere with your child.

There are heaps of organisations, so contact someone near you to find out further details: <http://www.doggydossier.com.au/assistance-dogs.php>  
[http://www.ozworkingdogs.com.au/Home\\_Page.php](http://www.ozworkingdogs.com.au/Home_Page.php)

***Q: My doctor has hesitated to give me the 'flu vaccination without my neurologists consent. Is this necessary?***

A: Neurological conditions, such as epilepsy, are not a reason to avoid giving any vaccines, including the influenza vaccine. The Australian Immunisation Handbook 10th Edition lists only two absolute reasons to not give influenza vaccines which include *anaphylaxis* (severe allergic reaction) following a previous dose of any influenza vaccine or any component of the vaccine. Precautions are also required in people who have an egg allergy or a history of Guillain-Barré syndrome.

Common side effects of the 'flu vaccine include: Local soreness, redness, and/or swelling from the shot; headache; fever; nausea; muscle aches; fainting (mainly adolescents). Seldomly, a child may have a seizure in relation to fever which can occur after some childhood vaccinations. If you are concerned about seizures in relation to a fever (febrile convulsions), children and adults can take paracetamol before the vaccination, and for 48 hours afterwards to reduce this chance. Speak to the doctor or immunisation nurse if febrile convulsions have happened to you in the past.



Influenza is quite a debilitating illness. It can cause you to become very sick and some people can suffer life-threatening complications such as pneumonia and bronchitis, which often require hospitalisation.

A family history of seizures or epilepsy is not a reason to avoid vaccination. Certainly if you have had any bad reaction in the past or possibly another medical condition, it is worth discussing this with the doctor.

For some commonly asked questions about the 'flu vaccination go to

<http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/immunise-influenza>

***Q: I've been seizure free on medication for four years. Is it true that, for some people, epilepsy is not necessarily a lifelong condition? Is there a way to see if I can safely go off of the medication?***

A: Up to 70% of people with epilepsy obtain good seizure control with medication. In a case like yours, where you've been seizure-free for a few years, it may be reasonable to consider discontinuing the medication. However, this decision needs to be made with your neurologist after careful consideration of how likely it is that you may have seizures again.

To help decide if stopping medication is a good choice for you, your neurologist will carefully review your overall medical history, as well as consider your history of seizures and type of epilepsy. Lifestyle issues also come into the picture, because seizure recurrence can be a real setback.

It's important to note that antiepileptic medications usually aren't suddenly discontinued, they need to be slowly weaned. Suddenly stopping these medications could provoke seizures which may be more severe than you have had in the past. In most cases, doctors prescribe a tapering of medication, which involves a gradual withdrawal over several weeks.

Make an appointment to talk with your doctor about your interest in discontinuing medication.

## **TAKING ACTION!**

### **What's happening at Epilepsy Action**

**Yarning Epilepsy** is a FREE, culturally tailored epilepsy education resource. Designed specifically for Aboriginal and Torres Strait Islander community and health workers, it covers:

- What epilepsy is and what it is not
- How to recognise the seven types of seizure activity
- How to apply seizure first aid for tonic clonic seizures and focal seizures with altered awareness and
- How to provide accurate health information to your community about epilepsy, seizure first aid and self-management strategies

Contact our team to get started on 1300 37 45 37 or email [epilepsy@epilepsy.org.au](mailto:epilepsy@epilepsy.org.au)



### **ACTIVE FUNDRAISING: Get Active and Take Action for Epilepsy!**

Tighten those laces and get ready to make a difference for Epilepsy Action by Active Fundraising. Join in one of the sporting events happening around Australia - whether you're in it for a fun day out, or to achieve a personal best, make every step count by fundraising as part of your run for those impacted by epilepsy.



Visit <http://www.epilepsy.org.au/support-us/fundraise-for-us/active-fundraising> to find an event near you!

**Now more than ever  
we need your help!**

**Visit [www.epilepsy.org.au](http://www.epilepsy.org.au) to donate today**

