

## Feature 1: Driving & Epilepsy

The fundamental difficulty of driving restrictions for people with epilepsy lies in getting a balance between safety and practicality. While many factors contribute to safety on the road, driver health and fitness to drive is a very important consideration.

### First seizure

Up to 5 percent of people in Australia will experience a one-off (provoked) or unprovoked seizure during their lives, many of whom are otherwise healthy adults who work, drive and live active lives. If another seizure is likely to occur, the risk is at its highest during the period immediately after the first seizure with the overall risk of a second seizure being up to 40 to 50 percent. This risk varies according to the individual circumstances, and steadily decreases over time with each passing month of seizure freedom. Approximately 80–90% of people who do have a second seizure, do so within 2 years of the initial seizure.<sup>i</sup>



Driving restrictions are therefore warranted during the early period (after the seizure) of highest risk. In Australia after an unprovoked or provoked first seizure a driving ban of at least 6 months is recommended for private vehicle licence holders (cars and motorbikes) as this is the highest risk period for seizure recurrence.<sup>ii</sup>

### When you can't drive

There is no doubt that the loss of driving privileges can have a profound impact on the quality of life of people diagnosed with epilepsy, and those around them. For most adults, driving is a primary means of transport and is necessary for employment, maintaining social ties, family commitments and performing other activities essential to independent living.<sup>iii</sup>

Regulations restricting people with epilepsy are based around public safety - to reduce the risk that drivers with epilepsy might pose to themselves and others. The risk of having a seizure behind the wheel is not the only concern here, also the fact that driving ability may be affected by antiepileptic drug (AED) side effects and/or by the underlying pathology causing the persons seizures.

### Medical standards for licensing – Seizures and epilepsy

#### Default Standard for Private Vehicle only – cars, light rigid vehicles or motorcycles

All cases (default standard)	A person is not fit to hold an unconditional licence if:
<p>Applies to all people who have experienced a seizure.</p> <p>Exceptions may be considered only if the situation matches one of those listed below.</p>	<ul style="list-style-type: none"> <li>• the person has experienced a seizure.</li> </ul> <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review,* taking into account information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> <li>• there have been no seizures for at least 12 months;** and</li> <li>• the person follows medical advice, including adherence to medication if prescribed or recommended.</li> </ul>

	<p>* If a driver undergoing treatment for epilepsy has experienced an extended seizure free period (more than 10 years) the driver licensing authority may consider reduced review requirements based on independent specialist advice (refer to section 3.3.7 Independent experts/panels).</p> <p>** Shorter seizure-free periods may be considered by the driver licensing authority if the person's situation matches one of those in the remainder of this table.</p>
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**Exert from: Assessing Fitness to Drive 2017, page 89**

*This is not a complete version of this table or standards. This is the standard that applies to all drivers who have had a seizure unless their situation matches one of a number of defined situations listed in the table in [Assessing Fitness to Drive](http://www.austroads.com.au/drivers-vehicles/assessing-fitness-to-drive) (LINK <http://www.austroads.com.au/drivers-vehicles/assessing-fitness-to-drive> ). There are situations that are associated with a lower risk of a seizure-related crash and therefore driving may be resumed after a shorter period of seizure freedom than required under the default standard.*

State and territory driver licensing authorities (DLAs) have the ultimate responsibility of deciding whether a person with epilepsy should receive a driving license. However, in practice, the DLAs need to communicate with the treating doctor to make this decision.

## Conditional license

### Variations to the default standard

There are several situations in which a variation from the above default standard may be considered by the DLA to allow an earlier return to driving. These are:

- seizures in childhood
- first seizure
- epilepsy treated for the first time
- acute symptomatic seizures
- 'safe' seizures
- seizures only in sleep
- seizures in a person previously well controlled
- exceptional circumstances.



In most cases, exceptions to the default standard will be considered only for private vehicle drivers.

### Other factors that may influence licensing status

A number of factors may influence the management of epilepsy with regards to driving and licensing. These include:

- epilepsy treated by surgery
- not taking medication as prescribed
- stopping or changing anti-epileptic medication
- a seizure causing a crash
- resumption of an unconditional licence.

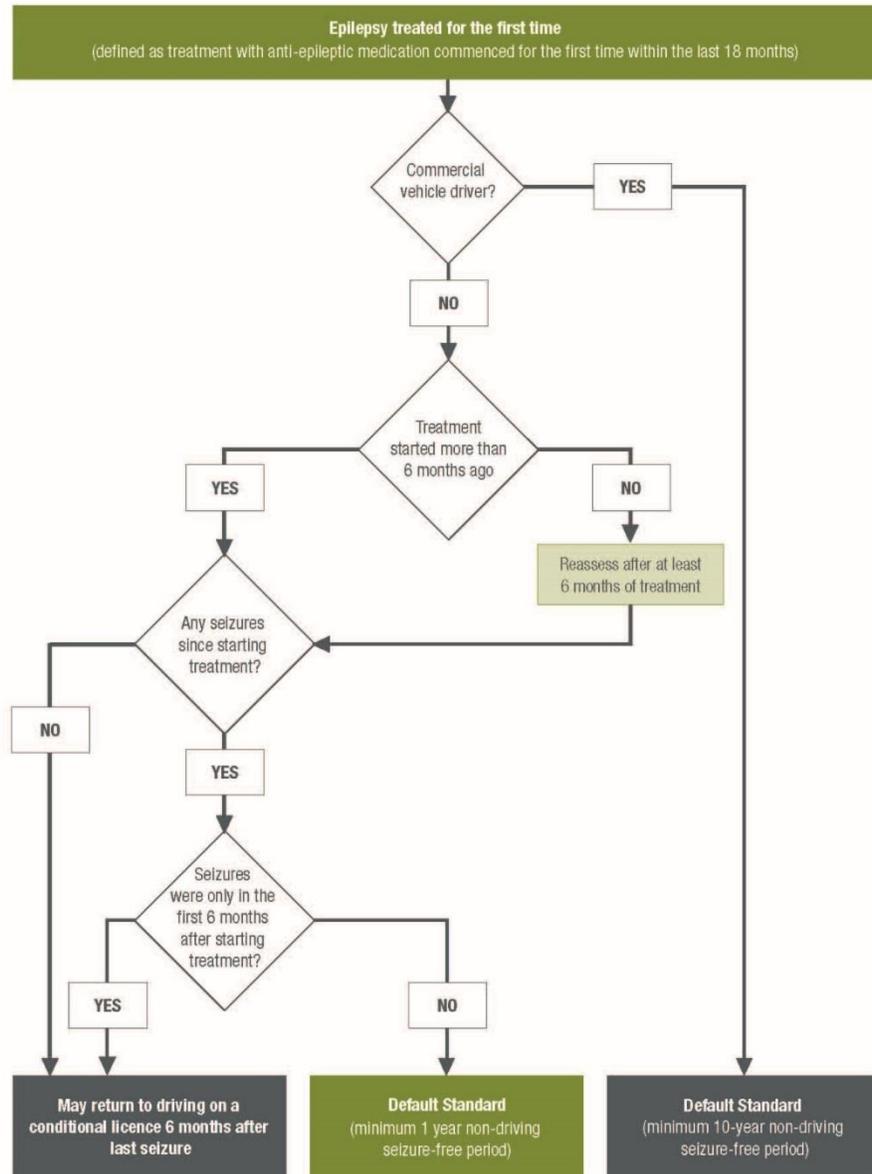
It is good practice for any person who has a first seizure to be referred to a specialist, where available, for accurate diagnosis of the specific epilepsy type so that the right treatment is started and all the risks associated with epilepsy, including driving, can be explained. An annual medical review is also recommended.

Ultimately, driving safety in epilepsy relies on the judgment of the person with epilepsy and their compliance with regulations and medical advice. A stronger understanding of the effects of different types of seizures on consciousness and driving ability may help remove driving restrictions for those who pose little risk to themselves and others, potentially improving the quality of life among people living with epilepsy.

**Assessing Fitness to Drive. Page 87**

Neurological conditions

Figure 14: Epilepsy treated for the first time



Part B: 6

## Advice to licence holders <sup>iv</sup>

All licence holders should be advised of the following general principles for safety when driving. The person:

- must continue to take anti-epileptic medication regularly as prescribed.
- should get adequate sleep and not drive when sleep-deprived.
- should avoid circumstances, or the use of substances (e.g. excessive alcohol), that are known to increase the risk of seizures.

If a person refuses to follow a treating doctor's recommendation to take anti-epileptic medication, the person will most likely be assessed as not fit to drive.

## Returning to driving

In general, responsible people with well-managed epilepsy (demonstrated by an appropriate seizure-free period and compliance with treatment and other recommendations) may be considered by the DLA to be fit to drive a private vehicle. Every case is assessed individually. A license is usually returned after sufficient time has passed without further seizures (with or without medication) to allow the risk to reach an acceptably low level. If a second seizure occurs (except on the same day as the first), the risk of recurrence is much higher and the standards for epilepsy treated for the first time will apply (see diagram above and refer to Assessing Fitness to Drive page 86).<sup>iv</sup>

Because a driving licence is vital for some people to continue work, maintain independence and recreation, and reduce social isolation, the risk of it being withdrawn or not returned, can understandably evoke strong emotions and reactions. People with recurrent seizures who continue to drive put themselves and the community at risk.

People who drive without seizure control may be liable if they continue to drive knowing that they have a condition that is likely to adversely affect safe driving. Drivers should be aware that there may be long-term financial, insurance and legal consequences where there is failure to report an impairment to their DLA.

Conditional licences rely on the person being responsible for management of their condition, including taking medications as prescribed in conjunction with the support of a health professional and regular review.<sup>v</sup>

## A Note About License Plate Recognition

All Australian states and territories now use both fixed and mobile automatic number plate recognition Automatic Number Plate Recognition (ANPR) systems.

Fitted to police vehicles, the technology is used to accurately scan vehicle number plates which are then checked against a database which combines two lists from the DLA, the first is of registered vehicles and the other is of driving license holders. The database cross references this information and a "hotlist" of number plates is created.

The database list includes licence plates that have been cancelled, unregistered, reported as stolen, or whose owners are wanted in connection with a crime. Because the recorded database is very much vehicle-focused and not about the individual, so when a person has lost their licence or never held a license and are the registered owner of a vehicle, this would then activate an alert regardless of who is driving the vehicle, in this case usually the partner or the kids. This would be resolved with a simple matter of a basic licence check however can become inconvenient when particular local areas are targeted.

***The content in this article refers to private vehicle driving licenses. Commercial licenses have stricter criteria and restrictions.***

***License regulations can seem complex. If you need to clarify any of this information, call us on 1300 37 45 37 or email [epilepsy@epilepsy.org.au](mailto:epilepsy@epilepsy.org.au) or speak to your doctor.***

***For more extensive information in regard to driving and health conditions, visit Austroads - Fitness to Drive <http://www.austroads.com.au/drivers-vehicles/assessing-fitness-to-drive>***

## References:

<sup>1</sup> Berg, Anne T. (2008) Risk of recurrence after a first unprovoked seizure. *Epilepsia*, 49(Suppl. 1):13–18, 2008 <https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1528-1167.2008.01444.x>

<sup>1</sup> Brown, J.W., Lawn, N.D., Lee, J.O., & Dunne, J.W. (2015). When is it safe to return to driving following first-ever seizure? *Journal of neurology, neurosurgery, and psychiatry*, 86 1, 60-4. [https://pdfs.semanticscholar.org/abba/c8c7a9b38a0d4943354a9289c6d1b50472a5.pdf?\\_ga=2.152484665.1474930587.1534821810-1274347625.1534821810](https://pdfs.semanticscholar.org/abba/c8c7a9b38a0d4943354a9289c6d1b50472a5.pdf?_ga=2.152484665.1474930587.1534821810-1274347625.1534821810)

<sup>1</sup> Chen, William C. et al. (2014). Epilepsy and driving: Potential impact of transient impaired consciousness. *Epilepsy & Behavior*, Volume 30 , 50 – 57. [https://www.epilepsybehavior.com/article/S1525-5050\(13\)00490-3/fulltext](https://www.epilepsybehavior.com/article/S1525-5050(13)00490-3/fulltext)

<sup>1</sup> Austroads. Assessing Fitness to Drive (Updated 2017).

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## Feature 2: What's new?

This is an update of a number of new products and services that have recently come to our attention and we think may be helpful for some people. There may be other similar products and services available.



[meditation-app](#)

### HeadSpace

Headspace is the simple way to reframe stress. Sleep trouble? Meditation creates the ideal conditions for a good night's rest. Relax with guided meditations and mindfulness techniques that bring calm, wellness and balance to your life in just a few minutes a day.

<https://www.headspace.com/headspace->

## Apps

### Emergency services App for adults and children

<http://emergencyapp.triplezero.gov.au/>

### Triple Zero

The Emergency+ app is a free app developed by Australia's emergency services and their Government and industry partners. The app uses GPS functionality built into smart phones to help a Triple Zero (000) caller provide critical location details required to mobilise emergency services.

<https://itunes.apple.com/au/app/emergency/id691814685?mt=8>

### Teach your children 000

Kids will learn about how to deal confidently with and get help in an emergency, by playing games and solving problems.

They'll learn about safety messages and hear what happens when you call Triple Zero (000). Along the way they will meet the "Zeros" as they are guided step by step through the game.

<https://itunes.apple.com/au/app/triple-zero-kids-challenge/id679476707?mt=8>

### Stress and anxiety

#### Smiling Mind (Free)

Offers a unique web and app-based tool developed by psychologists and educators to help bring balance to people's lives. With programs are designed to assist people in dealing with the pressure, stress and challenges of daily life. They offer programs for:

- Children of all ages
- Adults
- Sport
- Mindfulness in Education
- Mindfulness in the Workplace

<https://www.smilingmind.com.au/smiling-mind-app/>

### Pacifica

Stress, anxiety, and depression can get in the way of you living your life. Pacifica gives you psychologist-designed tools to address them based on Cognitive Behavioral Therapy, mindfulness meditation, relaxation, and mood/health tracking.

<https://www.thinkpacific.com/>

### Concussion Recognition and Response (Free)

Helps coaches and parents recognise whether an individual is exhibiting/reporting the signs and symptoms of a suspected concussion. In less than 5 minutes, the app allows a coach or parent to respond quickly to determine whether to remove the child from play and the need for further medical examination.

<https://itunes.apple.com/us/app/concussion-recognition-response/id436009132?mt=8>

### BrainKit TaskPlanner™ (Free)

Helps guide those with prospective memory difficulties along their path toward recovery. Through an easy-to-use interface, the planner allows users and/or caregivers to define daily tasks, breaking them down into individual, simple steps. It then guides the user, step-by-step, as they perform these tasks in real time.

<https://itunes.apple.com/us/app/brainkit-taskplanner/id913595473?mt=8>

### MedAdvisor

MedAdvisor is revolutionary software that puts a virtual pharmacist, 'Pharmacist Phil' on your smart phone, tablet or PC. MedAdvisor connects with your local pharmacy to help you take medication safely, effectively and on-time. Plus it's entirely FREE. <https://www.medadvisor.com.au/Home/Landing>

## Safety Products

### Drop Support

This is a new product designed to make it safer for people who have falls and drop attacks. The Drop Support harness is a unique, upper body harness that wraps around the user's waist, chest and torso, with an attached central handle running the length of the torso. The support handle is a point of contact

between the user of the harness and the person assisting the user

For 30% discount (Australian users) use the Promo Code: DROP30

For more information go to <https://www.dropsupports.com/>

## Websites

**New mums.** MumSpace is Australia's new one-stop website supporting the mental health and emotional wellbeing of pregnant women, new mums and their families. MumSpace is designed to connect you quickly with the level of support you need, from advice and support in the transition to parenthood, to effective online treatment programs for perinatal depression and anxiety. The resources on MumSpace will help you 'step-up' to whichever level of support suits you best. MumSpace is also a resource for your healthcare professional.

<https://www.mumspace.com.au/>

**Wonder Moms.** Wonder Moms is a project by three moms to share real talk, helpful information, and practical advice with parents of kids who have intellectual disabilities, Down syndrome, autism, language and speech delays, deafness, chronic illness, and traumatic brain injury.

<http://wondermoms.org/>

## Conference

**Foetal Anticonvulsant Syndrome NZ** are holding a "Meeting of the Minds" conference on 24-25 January 2019.

With the medical knowledge versus the reality of living with foetal anticonvulsant syndrome (FACS), it is time that there is a meeting of the minds. Together, working collaboratively, there can be a reduction of FACS, and for those already affected the opportunity to assist and empower them to reach their full potential. It is about collaboration, a holistic approach, equal partnership conversations, informed consent, and making a positive change. Everyone's voice is valid.

If you are interested in attending or speaking go to <http://www.facsnz.com/new-events/2019/1/24/facs-conference-meeting-of-the-minds>

## In the News – The latest on epilepsy



### Laser surgery offers less invasive treatment of medication resistant epilepsy

A Swiss hospital in Lausanne carries out first MRI-guided procedure of its type in Europe. It eliminates the need for open brain surgery. This procedure is not yet available in Australia. <http://optics.org/news/9/8/35>

### Spider venom contributing to a treatment for epilepsy

A protein found in spider venom could help scientists design an effective medication for the treatment of Dravet Syndrome, a rare form of epilepsy.

<https://www.medicalnewstoday.com/articles/322702.php>

### Depression improved thanks to VNS

Vagus nerve stimulation has been used as a treatment for epilepsy for over 20 years now. One of the positive side effects of this therapy was that it also reduces the symptoms of depression. <http://healthmedicinet.com/i/depression-patient-who-suffered-for-30-years-no-longer-suicidal-thanks-to-experimental-device/>

### Incredibles 2 re-edited to meet standards for people with photosensitive epilepsy

Disney has re-edited its new Pixar film Incredibles 2 to ensure it passes a test around flashing lights and patterns.

<https://www.epilepsy.org.uk/news/news/incredibles-2-re-edited-meet-standards-around-flashes-and-patterns-affecting-people>

### New epilepsy medications have not improved outcomes

Despite the availability of over 15 new drugs, overall seizure control in newly diagnosed patients has not fundamentally changed. <http://www.newswise.com/articles/meet-the-new-drug-same-as-the-old-drug-influx-of-new-epilepsy-medications-has-not-improved-outcomes>

### Modified Atkins diet in adults with epilepsy

The modified Atkins diet is an easier alternative to the ketogenic diet and although responses vary, it has shown to reduce seizures in some people. It might worth trying in adult focal epilepsy.

[https://www.practiceupdate.com/c/70012/3/7/?elsca1=emc\\_ene](https://www.practiceupdate.com/c/70012/3/7/?elsca1=emc_ene)

[ws\\_top-10&elsca2=email&elsca3=practiceupdate\\_neuro&elsca4=neurology&elsca5=newsletter&rid=MTM1NzAyODc4MzM2S0&lid=10332481](http://www.epilepsy.org.au/news/why-do-aussies-self-medicate-with-cannabis/)

### Debate at epilepsy conference addresses opinions on medical cannabis for seizures

At the 12th Asian & Oceanian Epilepsy Congress in July the pros and cons of medical cannabis and cannabis-derived products for epilepsy were debated. The debate drew an audience of more than 400 epilepsy specialists and neurologists. <http://www.newswise.com/articles/cannabis-for-epilepsy-debate-addresses-opinions-on-medical-marijuana-for-seizures>

### Why do Australians self-medicate with cannabis?

Australians who use illicit cannabis for medical reasons do so mainly to treat mental health issues, chronic pain, and sleep problems. An anonymous online survey of 1748 people was just prior to the 2016 legislation for frameworks for medicinal cannabis use being passed. <https://ajp.com.au/news/why-do-aussies-self-medicate-with-cannabis/>

## Q&As – Our service providers answer your questions

**Q: I am unable drive my children to school because my seizures aren't controlled. Is there any way I can get some assistance with public transport costs? I live in NSW.**

A: In NSW, there is a School Student Transport Scheme (SSTS), which gives eligible school students free or subsidised travel between home and school, on NSW public transport, including trains, buses, ferries and light rail. Depending on where you're travelling, you may receive a free school travel pass, a School Opal card, or both.

To be eligible, you need to live a minimum distance from your school to be eligible for a free school travel pass. The minimum distance varies according to the year/grade you are enrolled in that calendar year:

- Years K to 2 (Infants): no minimum distance

- Years 3 to 6 (Primary): 1.6 kilometres straight line distance or 2.3 kilometres walking or further
- Years 7 to 12 (Secondary): 2 kilometres straight line distance or 2.9 kilometres walking or further.

The assessment of walking routes may only take into account the distance and suitability of pedestrian infrastructure. So, for instance if your children have to cross a major road or there are no footpaths in your area, it may be considered unsafe. However, they do expect the supervision of children walking to and from school is the responsibility of their parents and guardians.

School students are entitled to a half fare concession when travelling on public transport. Some transport providers also provide periodical ticket products at a discounted rate. You may wish to contact the transport providers to enquire about which ticket products best suit your needs.

If you are not approved, and you consider that there are special circumstances in your case, such as personal safety or financial hardship issues, you may apply to the SSTS Appeals Panel for an independent review of this decision.

**Q: Can I donate blood if I have epilepsy?**

A: In Australia, yes, as long as you haven't had a seizure for at least three years. In some cases the Red Cross blood service need a letter of approval from your doctor, so call 13 14 95 if you have any questions.

**Q: I'm wondering if I have laser waxing on my chin will cause me to have a seizure.**

A: It is unclear if you will be undergoing laser hair removal therapy or a form of waxing so I will answer for both therapies.

Waxing – unless you have seizures triggered by pain, stress, anxiety or heat this form of hair removal is unlikely to trigger seizures.

Laser therapy – is also unlikely to trigger seizure activity. If you have been diagnosed with photosensitive seizures and would like to undergo the procedure I would advise you to cover your eyes to block any stimuli from the flashes of the laser. The laser flashes are most likely at a rate too low or slow to trigger a seizure, however although it is uncommon, people can rarely



experience seizures in a lower range. If at any stage during the procedure you feel strange or unwell, it would be wise to discontinue. If you remain unsure whether to proceed with the procedure it would be worth seeking the advice of your doctor.

**Q: What is Todd's paralysis?**

A: Todd's paralysis is experienced by some people with epilepsy. It happens after a seizure when it becomes impossible to move all or part of the body. Symptoms occur immediately after a seizure and can last several minutes, sometimes several hours. It is not a stroke, it is the brain recovering from a seizure, and this can have an impact on the body.

Todd's paralysis commonly affects one hand, arm, or leg, but the condition can affect the whole body. The effects can range from a weakness in one part of the body to a full loss of movement and sensation. Symptoms can also include temporary problems with sight or speech. There is no clear cause of Todd's paralysis. In rare cases, Todd's paralysis affects people who do not have epilepsy, such as those who have had a head injury. It can also be referred to as Todd's paresis, Todd's palsy, or postictal paresis.

**Q: What is foetal anticonvulsant syndrome?**

A: Foetal anticonvulsant syndrome (FACS) - is a group of malformations that can affect some babies if they are exposed to certain antiepileptic drugs (AEDs) while in the womb. For women who are taking AEDs, the risk of their baby having a major problem (congenital malformation) depends on the type, number and dose of the medication. The risk for any one drug is about 6 out of 100 (the risk of the general population which is 3 in 100). This risk may increase with the number of drugs.

Symptoms include physical abnormalities as well as developmental, behavioural and learning difficulties. Children with FACS can have a mixture of mild to more serious symptoms.

Research is still quite limited in this area but is improving.

Women with epilepsy who are pregnant and worried about their medication should not stop taking it without talking to their doctor. Stopping your medication makes you more likely to have seizures which can also be a risk to the baby. Most women with epilepsy will have a healthy child.

## Taking Action – What’s happening at Epilepsy Action

### ANIMATED SEIZURE FIRST AID VIDEOS

**Have you seen our new series of animated videos for seizure first aid?**

We have seizure first aid for children and seizure first aid for adults in English, Chinese and Arabic. Check them out at <https://www.epilepsy.org.au/about-epilepsy/first-aid/> and share them with your family and friends!

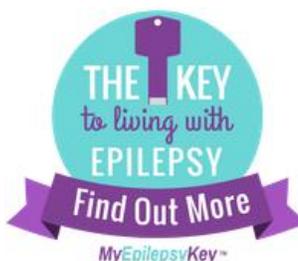


### CAN YOU GIVE OUR TEDDIES A FUR-EVER HOME?

We're beary excited to have some cuddly new friends **available for sale here:** <https://www.epilepsy.org.au/get-involved/buy-merchandise!> Every one of these bears sold not only helps us to raise awareness of epilepsy but also helps us to directly support more families impacted by epilepsy with our free services. Can you give one of our teddies a fur-ever home?



### MYEPILEPSYKEY



MyEpilepsyKey is about knowledge and we want that knowledge to be as easy as possible to access. MyEpilepsyKey program can now be accessed directly by visiting <https://myepilepsykey.com.au> or via a USB key provided to you by your healthcare professional.