

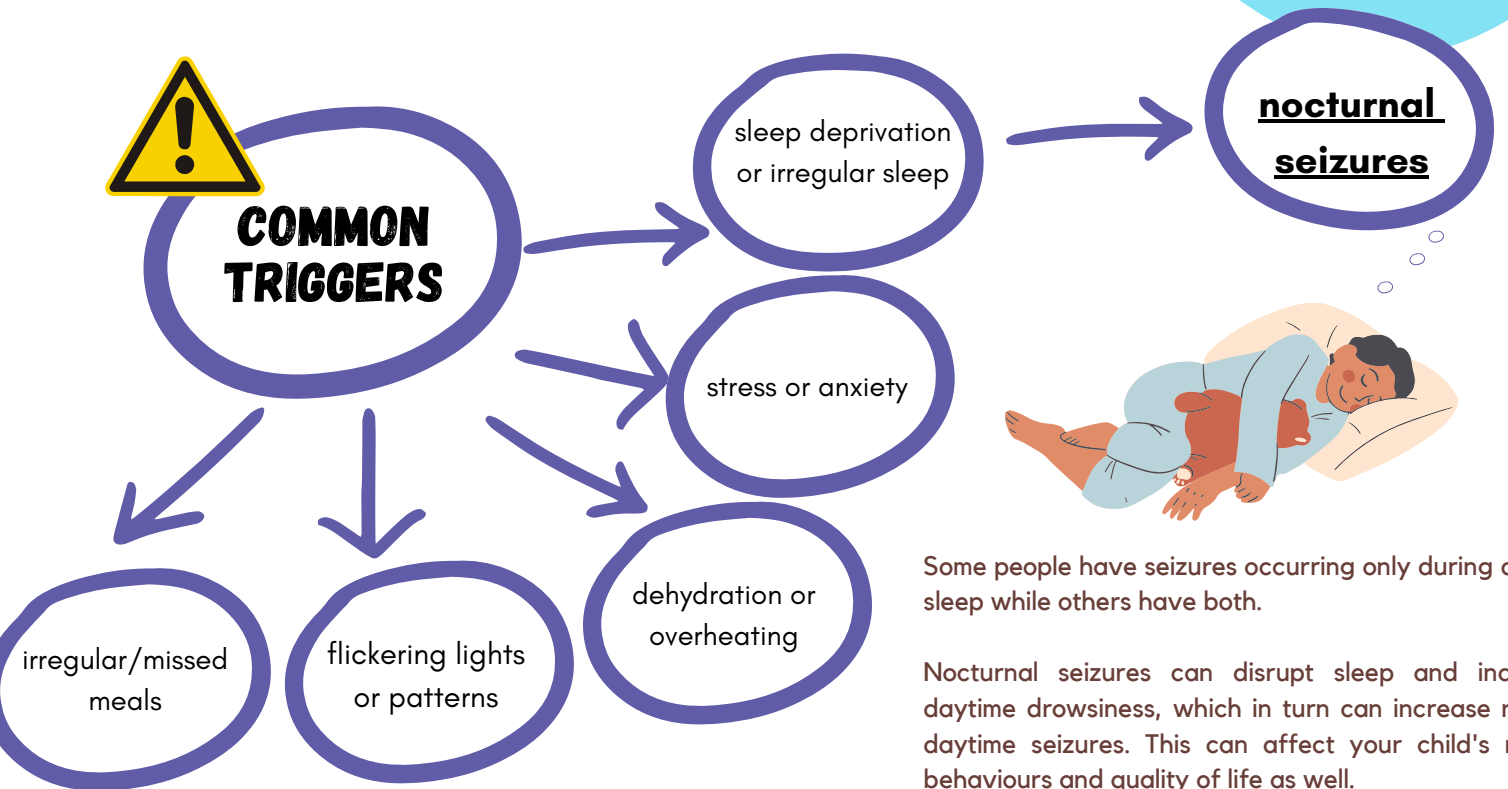
Cerebral Palsy & Epilepsy



WHAT ARE EPILEPTIC SEIZURES?

Sudden episodes of abnormal and excessive electrical activity in the brain that causes changes in behaviour, movement, or sensation.

(Epilepsy Action Australia, 2020a)



(Pavone et al., 2021)

Some people have seizures occurring only during day or sleep while others have both.

Nocturnal seizures can disrupt sleep and increase daytime drowsiness, which in turn can increase risk of daytime seizures. This can affect your child's mood, behaviours and quality of life as well.

(Epilepsy Action Australia, 2020a)

MYTHS VS FACTS

- | | |
|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1 My child will shake and jerk when he/she has a seizure.</p> | <p>Not every shakes, jerks or is unconscious during a seizure. There are a range of seizures with different side effects and presentations.</p> |
| <p>2 During a seizure, my child is in pain.</p> | <p>In general, the actual experience of having a seizure does not hurt. However, your child might feel muscle soreness, headaches and fatigue. If they fell down during the seizure, they might feel pain.</p> |
| <p>3 My child has to go to the hospital if he/she has a seizure.</p> | <p>Not all seizures require hospitalisation. Most often, your child will just need rest post-seizure. But do call emergency if the seizure lasts for >5 mins, is unresponsive for >5 mins post seizure, or has a second seizure soon after.</p> |
| <p>4 If my child has a seizure, he/she has epilepsy.</p> | <p>Not all seizures means your child has epilepsy. Speak to a qualified doctor regarding your child's diagnosis if he/she experiences seizures.</p> |
| <p>5 Fevers above 40°C can cause brain damage or seizures.</p> | <p>This is called a <u>febrile seizure</u>, but does not mean your child has epilepsy. Speak to a qualified doctor regarding your child's diagnosis if he/she experiences seizures.</p> |

(Epilepsy Society, 2022; National Institute of Neurological Disorders and Stroke, 2023a)

EPILEPSY



CEREBRAL PALSY

Epilepsy is a **common morbidity** of cerebral palsy. There is a **higher risk** of developing epilepsy and experiencing seizures for children with cerebral palsy than the general population.

Condition that causes motor impairment due to brain damage before, during, or after birth.

1 in 4



children with CP **also experience epilepsy.**

1st Seizure



occurs **12-24 months** after birth

Severity



depends on the **size, location and quality** of the brain

(Novak, 2014; Potharaju, 2016; Singhi et al., 2016)

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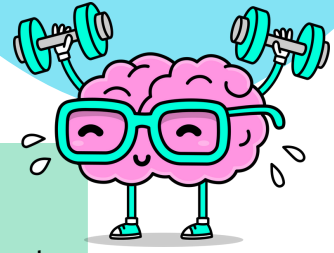


HOW DOES EPILEPTIC SEIZURES AFFECT MY CHILD?

Epilepsy can worsen your child's impairments and quality of life, depending on the type frequency, and severity of the seizures.

1

DEVELOPMENT



Epilepsy is associated with higher level of mental impairment. Seizures may disrupt your child's **cognitive** and **emotional** development by disrupting brain function.

- Learning
- Memory
- Attention
- Executive function

- Mood swings
- Behavioural changes

Children with both CP and epilepsy are more likely to have intellectual disability.

(Wallace, 2001)

higher MACS level

MOTOR FUNCTION

2

Epilepsy in children with CP is associated with **worse hand function** especially for children with higher brain impairments.

related to higher GMFCS level

Seizures may cause **sudden and uncontrollable movements**, affecting your child's **balance, coordination and muscle tone**, which are already compromised with CP.

Your child may also experience **exhaustion and muscle soreness** after a seizure which will affect their motivation to do physical activities.

(Gajewska, Sobieska & Samborski, 2014)

3

PHYSICAL CHANGES

Seizures may cause temporary difficulties in talking or writing, as well as confusion and slow responses. You child might experience headaches, dizziness and/or nausea. He/she might also lose bladder and bowel control.



(Jansheski, 2022; Epilepsy Foundation, 2023b)

4

QUALITY OF LIFE

Seizures can be **unpredictable and disruptive**. Your child may take hours or even days to recover. Your child may miss school or other activities. Seizures can also cause your child to lose consciousness and fall, **increasing risk of injury**.

However, research found that children with CP and epilepsy **did not find significant differences in quality of life** compared to children with CP but not epilepsy. On the other hand, **mothers of children with CP and epilepsy** have poorer quality of life than mothers of children with CP without epilepsy.

It is important for you to take care of your own well-being while caring for your child.

(Cerebral Palsy Research Network, 2022; Potharaju, 2016)

HOW DO I KNOW IF MY CHILD HAS AN EPILEPTIC SEIZURE?

There are different types of seizures and they have different symptoms.

(Jansheski, 2022; Epilepsy Foundation, 2023)

COMMON SIGNS

- Stumbling, falling, or being clumsy
- Repetitive movements like blinking or nodding
- Uncontrollable body movements or convulsions
- Loss of consciousness or zoning out
- Abnormal muscle tone
- Loss of bladder or bowel control

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WHAT SHOULD I DO WHEN MY CHILD HAS A SEIZURE?



- Stay calm.
- Keep your child safe - move anything hard/sharp away.
- Loosen tight clothing and remove glasses.
- Put something soft under your child's head, if you can.
- Only move your child if he/she is not safe (e.g., on the road).
- Time the seizure - or estimate the time if you don't have a watch.
- Stay with your child until the seizure stops. DO NOT wake them up, but check their breathing.
- After a seizure, roll your child onto their side into the **recovery position** to clear the airway and prevent choking.
- Record the details of the seizure in a seizure diary.



DO NOT



- Try to hold your child down.
- Put anything in your child's mouth (e.g., food and drinks).
- Perform CPR

(Centers for Disease Control and Prevention, 2022; Healthdirect Australia, 2018; St John Ambulance Australia, 2022)

WHEN DO I NEED TO CALL EMERGENCY FOR MEDICAL HELP?



(Healthdirect Australia, 2018)

- ? Has the seizure lasted longer than 5 minutes?
- ? Does your child have a bluish colour on his/her lips or face?
- ? Did your child hit his/her head before or during the seizure?
- ? Does your child have difficulty breathing or regaining consciousness after the seizure?

Please consult your doctor if you require any medication and instruction for emergency use.

Click [here](#) for more information.



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TIPS TO PROMOTE SEIZURE RECOVERY

1 Be sensitive and supportive.

Show patience, comfort, and reassurance as your child may be confused and uncomfortable for a few hours post-seizure.



2 Ensure your child is well-hydrated and eats balanced meals.

Please consult qualified speech pathologists and dieticians for your child's meal plan.

3 Ensure your child gets plenty of sleep.

If your child is tired following a seizure, avoid doing challenging tasks that require alertness and concentration.



4 Use soothing balms for biting wounds and bruises.



5 Exercise

Regular exercise improves mental state and quality of life for people with epilepsy and CP. Exercise also helps with gross motor function, coordination, sensory awareness, balance, etc.

Continuing with exercises recommended by qualified physiotherapists and occupational therapists will help your child maximise physiological and psychological benefits.

(Epilepsy Foundation, 2023c; Erdik, 2022; SingHealth, 2016; Yakasai, 2020)

Examples:

- Slow walk around the house
- Gentle passive stretching
- Water-based activities (e.g., play ball in the bathtub or pool)

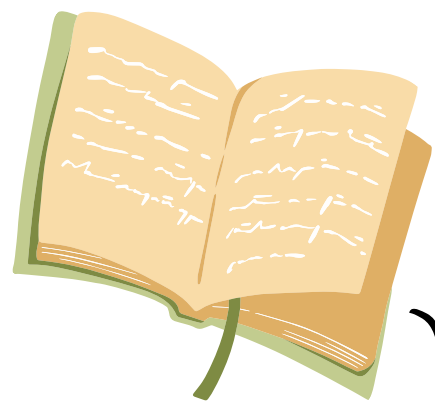
Some examples [here](#)

STARTING A SEIZURE DIARY

For every seizure, record:

(Epilepsy Foundation, 2023a)

- How long did the seizure last?
- What was your child doing before the seizure?
- Any significant mood changes during the seizure?
- What movements/sounds were made during the seizure?
- Any loss of consciousness during the seizure?
- Possible triggers of the seizure (e.g., lack of sleep)
- What was most helpful in helping your child manage the seizure?



Find a template [here](#)

These information can be helpful in creating a **Seizure Management Plan (SMP)** for your child. A SMP ensures everyone (teachers, friends, hospital staff) knows what to do when a seizure happens. You can work with your treating doctor to create a SMP using this [template](#).

(Epilepsy Action Australia, 2020)

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