



Epilepsy in Children Information Sheet

Epilepsy is a neurological condition characterized by recurrent, unprovoked seizures caused by abnormal electrical activity in the brain. The unpredictability of seizures can significantly impact a child's daily life, including their physical safety, emotional well-being, and social interactions. However, with appropriate treatment and support, children with epilepsy can lead fulfilling and active lives.

What Causes Epilepsy in Children?

The causes of epilepsy in children are varied and often multifactorial. In some cases, epilepsy is linked to genetic factors, with either inherited conditions or spontaneous mutations in specific genes playing a role. Structural abnormalities in the brain, which may develop in utero or during early development, are another significant cause.

Other potential causes include:

- **Brain Injuries:** Trauma during birth or accidents in childhood.
- **Infections:** Such as meningitis or encephalitis that impact the brain.
- **Metabolic Disorders:** Rare conditions that disrupt brain chemistry.
- **Unknown Factors:** In many cases, no clear cause is identified despite advanced diagnostics.

Understanding the underlying cause of epilepsy can guide treatment and help set realistic expectations for the child's prognosis.

Types of Seizures in Children

Seizures manifest in various ways, depending on the type and origin of the abnormal brain activity. Focal seizures, which begin in one specific area of the brain, can either preserve awareness (simple focal seizures) or impair it (complex focal seizures). These may involve unusual sensations, such as tingling or visual distortions, or repetitive behaviors like lip-smacking.

Common types of generalized seizures include:

- **Absence Seizures:** Brief staring episodes that may include subtle movements like blinking or lip-smacking.
- **Tonic-Clonic Seizures:** Characterized by muscle stiffening followed by rhythmic jerking and often loss of consciousness.
- **Atonic Seizures:** Sudden loss of muscle tone, leading to falls or head drops.



- **Myoclonic Seizures:** Quick, jerking movements, often in the upper body or limbs.

Young children may experience febrile seizures triggered by high fevers, which are typically harmless but can indicate a predisposition to epilepsy in some cases. Infantile spasms, a rare but serious condition seen in babies, involve sudden, jerking movements and often require immediate medical attention.

Recognizing Triggers and Managing Risks

Seizure triggers are highly individualized, but certain factors are commonly associated with increased seizure activity. Lack of sleep, stress, and anxiety are frequent triggers, as they disrupt the brain's natural rhythms. Illnesses, particularly those involving fever, can lower the seizure threshold.

Common seizure triggers include:

- **Photosensitivity:** Exposure to flashing lights or specific patterns.
- **Missed Medications:** Inconsistent adherence to prescribed treatments.
- **Dehydration or Low Blood Sugar:** These metabolic changes may rarely trigger seizures.
- **Environmental Factors:** Overstimulation or extreme temperatures.

Parents and caregivers can reduce risks by maintaining a regular sleep schedule, managing stress through relaxation techniques, and using tools like a seizure diary to identify and avoid potential triggers.

Seizure First Aid

When a seizure occurs, remaining calm is essential to ensure the child's safety. The immediate priority is to prevent injury by moving objects out of the way and cushioning the child's head.

Steps for seizure first aid include:

- Protect the child from harm by removing sharp or hard objects nearby.
- Do not restrain the child or attempt to stop their movements.
- Never place anything in the child's mouth, as it can cause choking or injury.
- Roll the child onto their side (recovery position) after the seizure ends to keep their airway clear.
- Time the seizure, noting how long it lasts and any unusual features.



Emergency services should be contacted if the seizure lasts longer than five minutes, if the child experiences another seizure immediately after, or if there are signs of injury or breathing difficulties.

Daily Life and Safety Measures

Children with epilepsy can thrive with thoughtful adjustments in their daily routines. At home, safety measures such as padded furniture, anti-slip mats, and supervised activities like cooking and bathing can prevent injuries. Showering is preferred over baths to reduce the risk of drowning during a seizure.

In school and social settings:

- Teachers and staff should be informed about the child's condition and provided with a seizure action plan.
- Seizure first aid training for school personnel is essential to ensure prompt and appropriate responses.
- Classmates can be educated about epilepsy to reduce stigma and foster inclusivity.
- Flexible accommodations, such as extended test times or modified schedules, may help the child succeed academically.

Recreational activities are encouraged but require caution. Swimming should always be supervised, and helmets are advised for biking and contact sports. Social interaction is vital for emotional well-being, so creating safe opportunities for playdates and group activities is recommended.

Treatment and Long-Term Management

Epilepsy management is highly individualized and depends on the child's specific needs. Most children are treated with anti-epileptic drugs (AEDs), which control seizures in about two-thirds of cases. Regular consultations with a neurologist ensure the medication is effective and side effects are managed.

For children with drug-resistant epilepsy, alternative treatments may include:

- **Ketogenic Diet:** A high-fat, low-carbohydrate diet shown to reduce seizures in some cases.
- **Medical Devices:** Such as vagus nerve stimulation (VNS) or responsive neurostimulation (RNS), which regulate abnormal brain activity.



- **Surgery:** Reserved for severe cases where seizures originate from a specific, removable area of the brain.

Emotional and psychological support is equally important. Living with epilepsy can lead to feelings of isolation, anxiety, or depression. Counseling and peer support groups can provide a safe space for children and families to share experiences, address concerns, and build resilience.

Epilepsy in children requires a comprehensive approach that includes medical care, safety measures, and emotional support. With proper treatment and an inclusive environment, children with epilepsy can achieve their full potential. Families, educators, and healthcare providers play a vital role in ensuring these children thrive both academically and socially. For more guidance and resources, consult your healthcare provider or reach out to organizations dedicated to epilepsy support.

References

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