



fight against childhood epilepsy & seizures

f.a.c.e.s is a not-for-profit organization that supports pediatric epilepsy research and programs for children with epilepsy.

Ten common misconceptions about childhood epilepsy, by Daniel Miles, MD

- 1. Children with epilepsy are brain injured.** While some children may have epilepsy related to permanent brain injury due to trauma, stroke or infection many children have no brain injury. These children develop normal motor skills, show good progress in school and maintain social relationships.
- 2. A child with epilepsy has mental handicaps.** Epilepsy may be associated with learning disabilities or diminished intelligence, and medication used to treat epilepsy may have a negative impact on school performance. Neither of these facts, however, means that all children with seizures have difficulties in learning. A large percentage of individuals with epilepsy have normal IQ scores, some even above normal intelligence. Children epilepsy should be watched closely for possible difficulties in school.
- 3. Only prolonged seizures (status epilepticus) will harm a child's brain.** It has been known for some time that prolonged seizures can injure the brain. It has only been more recently that it has been learned that even short seizures, if frequent or repetitive, can harm the brain, too. Thus, it is important that all seizures, short or long, be controlled as completely as possible. The goal of treatment for any individual with epilepsy should be freedom from all seizures.
- 4. An EEG will determine if my child has epilepsy.** An EEG is the most commonly used test to determine if an individual has epilepsy but it is not foolproof. In between seizures a patient's EEG may be completely normal. There may even be situations in which a seizure occurs during an EEG but no change in the brain waves is noted due to the fact that the seizure has arisen from deep within the brain. The diagnosis of a seizure disorder is made on a clinical basis in the sense that it is dependent upon the nature of the episodes as experienced by the patient and the behavior witnessed during the event.
- 5. If my child's EEG is abnormal while on medication shouldn't the dose be increased?** An EEG can be abnormal in any number of ways, most of which do not require changes of medications. Certainly if seizure activity is seen on the EEG it would be reasonable to discuss increasing the patient's antiepileptic medication dose. More commonly, however, epileptiform discharges, slowing of brain wave activity, or medication effect on the brain activity are noted, and do

not necessitate any change of the medication. On rare occasions, if a marked increase in the number of epileptiform discharges is noted in association with the patient experiencing a deterioration of cognitive function an increase in dose may be considered even in the absence of seizure activity.

6. **My child with epilepsy has twitches of the arms and legs while asleep. Are these seizures?** An overnight EEG may be necessary to be certain of the exact nature of the twitches, but it must be recognized that both children with and those without epilepsy may experience episodes that look like seizures but are not. Sleep myoclonus is a common cause of twitching of the extremities while asleep, and requires no treatment. Fainting or syncope, breath holding spells and gastroesophageal reflux in young children may all look like seizures. In older children migraine and motor tics can be mistaken for seizures as well. If you have concern you should contact your child's neurologist.
7. **The blood level of my child's antiepileptic medication is outside the therapeutic range. Shouldn't the dose be changed?** More important than whether or not the level is within a therapeutic range are two other factors. Is the patient free of seizure activity, and is the patient free of side effects from the medication? If seizure free and not experiencing side effects the dosage and level, whatever they may be, are appropriate. Some patients require levels well above the therapeutic range and do not experience any complications with the higher dose and level, while others may experience severe side effects at very low doses. Treatment should be tailored to each patient's needs and tolerances.
8. **Antiepileptic medication is the only way to treat my child's epilepsy.** Antiepileptic medications are not the only means by which seizures can be treated. Medications are the most common therapy for epilepsy and in a majority of cases do successfully control seizures. In cases of hard to control or "refractory" seizures more than one medication may be necessary or your child's doctor may recommend using other means of treatment including a vagal nerve stimulator, the ketogenic diet, or epilepsy surgery.
9. **Epilepsy surgery should be considered only after all medications have been used in attempts to control refractory seizures.** Recent studies have shown that if three appropriate medications failed to control an individual's seizures it is very unlikely that other medications will succeed. Under such circumstances it is reasonable to consider evaluation for epilepsy surgery and not wait the months or even years it might take to try all seizure medications. Childhood is a critical time of development and all efforts should be made to fully control seizures as rapidly as possible.
10. **Life will never be the same.** Like any chronic health disorder epilepsy does have an impact on daily life whether it is due to seizures themselves, medication side effects, or other related problems. By working closely with you child's neurologist to maximize seizure control, minimize medication side effects and being proactive in dealing with academic and social issues your child's life will, in most cases be a joyful experience. Children have a remarkable ability to adapt to adverse circumstances and thrive. Parents must help their child maintain a positive outlook and lead as normal a life as possible.