



## **Seizures in the Infant**

### **Seizures in Newborns**

Seizures in the newborn occur usually in the first two days. They can be caused by severe stress occurring during delivery, acute chemical imbalances, and infections. They are sometimes caused by a temporary instability of electrical circuits in the brain, which tend to get better with time. These seizures, which occur a little later, are called benign neonatal seizures and this tendency may run in families. Finally, seizures may be due to congenital abnormalities of the brain.

The clinical features of seizures in the newborn are extremely varied and can be hard to recognize. They are often repetitive in nature and can consist of a) rhythmic movements of the eyes, one or both arms, or one or both legs; b) rapid flexing of the arms or legs against the body; c) sudden onset of increased body stiffening; or d) sudden jerky movements

When babies are sleeping it is common for them to have periods of rapid eye movements or of body twitching. The body twitching is called "benign sleep myoclonus". When abnormal movements are due to epileptic seizures, the movements cannot be stopped by moving, touching or holding the baby.

Any behaviours that concern you should be discussed with your family doctor, pediatrician or public health nurse.

### **Seizures in Infants**

#### Causes

Infancy is the commonest time for epileptic seizures. The most common cause of seizures that occur during infancy is febrile seizures. Approximately 1 in 20 children will have a febrile seizure. These seizures usually stop before five years of age and the risk of epilepsy later in life is only minimally greater than normal. These children do as well as their brothers or sisters at school and treatment is generally not required.

Infants who have a seizure without fever tend to do well if they have reached their developmental milestones by the normal time and have not had a serious brain illness, such as meningitis or a head injury. When a child's development is delayed or he has other neurological symptoms e.g. cerebral palsy, the epilepsy is almost always due to a brain abnormality and further investigations may be required.

Approximately 1 in 20 children with epilepsy have a more serious form in which there are multiple types of seizures. This less common type of epilepsy may affect the rate of neurological development and such children should be seen by a pediatrician or neurologist.

#### Treatment

Only 30 – 50% of infants who have a seizure will have a second seizure. Therefore, treatment is rarely started after only one seizure. Indeed, infants who have only febrile seizures are not usually treated with medications unless the seizure was prolonged (longer than 15 minutes).



When medication is used, starting at a low dose and increasing the dose gradually can lessen the risk of side effects. Side effects can vary markedly but most children can be treated without side effects. If your child develops a new problem after starting the medication, you should always think about the possibility that the change could be a side effect of the drug and consult your doctor.

Medication is often given twice a day in young children. Pills can be crushed and then sprinkled onto a small amount of food (less than a teaspoon of solids.) This should be done at the beginning of meals, so the children are still hungry. If more than one medication is given, they should be given separately in case the medicine is spit up or not taken. If the infant is only fed formula or breast milk, the tablets can be crushed and mixed with a small amount of the liquid and given by putting the mixture into a nipple or with a small syringe into the side of the baby's mouth. Medications should never be put into a bottle, as they can stick to the side of the sides of the bottle and you cannot be sure that all the medication is swallowed. Some seizure medications do come in a liquid form. Often these need to be shaken very well and expire within one month. You should discuss with your doctor the best form of medications for your child.

There is no set time to stop medication. If the seizures were controlled quickly with medication and the infant is developing normally, an attempt may be made to withdraw the medication after being free of seizures for one year. An EEG may help to determine the risk of recurrence if the medication is stopped. Whenever medication is stopped, this should be done gradually and only under medical supervision.

Although seizures can occur during sleep, they are rarely ever life threatening.

**More information:**

[www.epilepsy.com/learn/seizures-youth/about-newborns-and-infants](http://www.epilepsy.com/learn/seizures-youth/about-newborns-and-infants)

(This webpage provides a brief outline of treatment and investigation of seizures in infants)

Approved for circulation in January 2009 (kf)

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