



## Seizures in infants

Epilepsy is a tendency to have recurrent seizures. There are many different causes of seizures in newborn infants and babies and seizures are quite common in the first year of life. In very premature babies the most common causes are reduced blood and oxygen flow to the brain, and bleeding into the brain.

Other causes of seizures include infections such as meningitis, low blood sugar or calcium, poor formation of the brain, and in rare cases, problems with metabolism. In some cases, the seizures may be due to a genetic or chromosomal problem. In other cases, no cause can be found.

Febrile tonic clonic (convulsive) seizures also commonly occur in babies and children aged 6 months to 5 years, with a rising fever. However the majority of children will outgrow these and febrile seizures are not classified as being epilepsy.

Seizures in new babies may be difficult to recognize, because the immature brain is unable to produce the more obvious seizures seen in older children. Seizures may be subtle, and consist simply of changes in breathing patterns, movements of the eyelids or lips, or

bicycling movements of the limbs. The baby may have jerking or stiffening of a leg or arm that alternates from side to side, or the whole upper body may suddenly jerk forward, or both legs may jerk up towards the belly with the knees bent. The baby's facial expression, breathing and heart rate may change, and their face may become pale, or grey.

Impairment of responsiveness is difficult to assess in newborns, even by experts, and babies who *do not* have epilepsy also can have sudden jerks, stiffening and tremors so it can be difficult to tell exactly what is happening.

It is important that any baby suspected of having seizures is referred promptly to a specialist for further diagnostic tests. This will usually include an EEG (electroencephalogram). Depending on the medical history and examination, the doctor may also order other tests, including a scan, blood and urine tests, chromosomal studies, and a lumbar puncture. Doctors will try to identify the cause of the seizures, although in some cases no cause can be found.

Treatment for young infants will depend on the cause and type of seizures that occur. In some cases no treatment is



needed if the seizure is an isolated event. In other cases, replacement of a missing nutrient can stop seizures, as in low blood sugar levels, or a calcium or Vitamin B6 deficiency in a newborn. Other babies may require treatment with anti-epilepsy drugs, and the choice will depend on the child's seizure type, the age the seizures began and the cause if it is known.

Reference: O.Devinsky, M. D.  
Epilepsy Patient and Family Guide  
Davis, 2002 Philadelphia

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