



## Impact of Neonatal Seizures on Infants

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### DESCRIPTION

Neonatal seizures are a type of seizure that occurs in new born within the first 28 days of life. They are different from seizures that occur in older children and adults. Neonatal seizures are caused by a variety of factors, including birth trauma, infections, and genetic disorders. They can be difficult to diagnose and treat, as the symptoms can be subtle and may be mistaken for other conditions.

Neonatal seizures can have a significant impact on the infant's brain development and may lead to long-term developmental delays or disabilities. Seizures in new born can be classified as focal seizures, which affect one part of the brain, or generalized seizures, which affect the entire brain. It's essential to recognize the symptoms of neonatal seizures early on to ensure that your child receives prompt and appropriate treatment.

Neonatal seizures can be caused by a variety of factors, including birth trauma, infections, genetic disorders, and metabolic imbalances. Birth trauma, such as oxygen deprivation during delivery or head trauma during childbirth, can cause neonatal seizures. Infections such as meningitis, encephalitis, and sepsis can also lead to seizures in new-borns. Genetic disorders such as tuberous sclerosis, Angelman syndrome, and Down syndrome can also cause neonatal seizures.

Metabolic imbalances, such as low blood sugar or calcium levels, can also cause neonatal seizures. In some cases, the cause of neonatal seizures may be unknown. It's essential to identify the underlying cause of neonatal seizures to provide appropriate treatment and prevent long-term developmental delays. The symptoms of neonatal seizures can vary depending on the cause and type of seizure. In some cases, the symptoms may be subtle and difficult to recognize. Common symptoms of neonatal seizures include rhythmic or jerky movements, staring, body stiffness, and feeding difficulties. The infant may also have changes in their breathing patterns, such as breathing pauses or fast breathing. Sometimes, neonatal seizures can be lead for other conditions such as colic, reflux, or fussiness.

Diagnosing neonatal seizures can be challenging, as the symptoms can be subtle and may be mistaken for other conditions. The healthcare provider will perform a thorough physical examination and may order various tests to diagnose neonatal seizures. An Electroencephalogram (EEG) is a test that measures the electrical activity in the brain and can detect abnormal brain activity that may be indicative of seizures. A brain MRI can also help identify any structural abnormalities in the brain that may be causing seizures.

Blood tests may also be performed to identify any metabolic imbalances that may be causing seizures. It's essential to seek medical attention if person suspect new born is experiencing seizures, as prompt diagnosis and treatment can help prevent long-term developmental delays.

The treatment options for neonatal seizures depend on the underlying cause and severity of the seizures. In some cases, seizures may resolve on their own without treatment. However, if the seizures are severe or frequent, medication may be necessary.

Anticonvulsant medications such as phenobarbital, phenytoin, or levetiracetam are commonly used to treat neonatal seizures. The type of medication used will depend on the underlying cause of the seizures and the infant's age and weight. In some cases, surgery may be necessary to treat the underlying cause of the seizures, such as in cases of structural brain abnormalities. It's essential to seek medical attention if person suspect newborn is experiencing seizures to ensure that they receive prompt and appropriate treatment.

Neonatal seizures can have long-term effects on an infant's brain development and may lead to developmental delays or disabilities. The impact of neonatal seizures on an infant's long-term development depends on various factors, such as the underlying cause of the seizures, the frequency and severity of the seizures, and the effectiveness of treatment. In some cases, neonatal seizures may resolve without causing any long-term developmental delays. However, in other cases, seizures may lead to long-term disabilities such as cerebral palsy, intellectual disabilities, or learning difficulties.

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**Received:** 02-Jan-2023, Manuscript No. JNB-23-20411; **Editor assigned:** 06-Jan-2023, Pre QC No. JNB-23-20411(PQ); **Reviewed:** 20-Jan-2023, QC No. JNB-23-20411; **Revised:** 25-Jan-2023, Manuscript No. JNB-23-20411(R); **Published:** 03-Feb-2023, DOI: 10.35248/2167-0897.23.12.393.

**Citation:** Rosaria M (2023) Impact of Neonatal Seizures on Infants. J Neonatal Biol. 12:393.

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Preventing neonatal seizures can be challenging, as many underlying causes are beyond our control. However, taking steps to ensure a healthy pregnancy and delivery can help reduce the risk of neonatal seizures. Getting proper prenatal care, avoiding

alcohol, drugs, and tobacco during pregnancy, and managing chronic health conditions can all help reduce the risk of neonatal seizures.