

Juvenile Epilepsy Syndrome (JES), sometimes referred to as "benign" epilepsy or "idiopathic" epilepsy, is not usually fatal. Foals are born normal and appear normal between epileptic seizures, usually outgrowing the condition between 12 and 18 months of age. Affected foals may show signs of epilepsy anywhere from two days to six months from birth. Most foals will have what is called 'cluster seizures'. Usually occurring before the third month birthday, these are multiple seizures over a three day period with signs of confusion, blindness, head rubbing, depression, inability to eat, nurse or even drink. Affected foals may suffer serious injury as a result of falling to the ground, against hard objects or into fences. The more severe Grand Mal seizures may cause the horse to lose consciousness and the eyes roll back into the head. Researcher Dr. Monica Aleman, at UC Davis in California, has pointed out that a foal cannot be considered to have epilepsy unless it has had more than two seizures. Close observation is essential, as some seizures may be slight. Clinical signs of the condition can be treated with traditional anti-seizure medications, which may reduce their severity.

Though the condition has been studied since 1985 at the University of California, Davis, the genetic mode of inheritance is unclear, though the cases studied were all of one general bloodline group. There are different theories at present; one suggests that, like epilepsy in humans, multiple genes may be involved. Some researchers have suggested that epilepsy may be linked in some fashion to Lavender Foal Syndrome, due to the fact that it can occur in similar bloodlines and some horses have produced foals with both conditions, and a third concern is that it possibly is an autosomal dominant trait. A "dominant" trait means that an affected foal only needs to inherit one copy of the mutated allele to show clinical signs. An example of a dominant trait is HYPP in American Quarter Horses.

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Reference Material

1. "Good news about recovery from foal epilepsy." *Equus*, Issue no 335, April 2007, reporting on Research of Monica Aleman, DVM, citing "Juvenile idiopathic epilepsy in Egyptian Arabian foals: 22 cases (1988-2005)," *Journal of Veterinary Internal Medicine*, November/December 2006
2. [Fanelli, H.H. "Coat Color Dilution Lethal \("lavender foal syndrome"\): A Tetany Condition of Arabian Foals" *Equine Veterinary Education*, 2005 17 \(5\) 260-263.](#)

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