

to give an actual diagnosis. Sometimes all the tests are not performed because they are expensive and are not necessarily needed to begin treating a dog for epilepsy.

### **Presumptive v. Actual Diagnosis**

Since epilepsy is a diagnosis by default it is very costly to run all the tests necessary. Many pet owners do not have pet health insurance and it is up to the pet owner to decide if they will spend the money for all the necessary tests. For a finding of idiopathic (primary) epilepsy the doctor must be able to state that no underlying disease or cause can be found for the seizures. Without all the tests, there is only a presumptive diagnosis. Some refer to it simply as a case of suspected epilepsy.

Doctors are aware that many people cannot afford the brain imaging tests, and yet, they still want to be able to treat the pet. The doctor may explain to the pet owner, as ours did, that based on the tests all being within normal range he is almost certain it is idiopathic epilepsy, although he can't be completely certain unless he runs the more costly brain imaging and spinal tap tests. The doctor may begin treating for idiopathic epilepsy without these added tests because, if it is epilepsy, the dog usually responds positively to the medications after they reach

therapeutic levels in the blood. If it is not epilepsy, other symptoms or neurological or clinical signs will occur indicating that there may be another cause for the seizures. If this happens, the doctor should then advise you that the other tests are necessary. Of course it is still up to you whether or not you will agree to run these additional and more costly tests. I believe most pet owners do want to know what is wrong but, unfortunately, simply cannot afford it. The doctor is concerned about treating the dog. If the more costly tests were required for treatment, many owners would have to put their pets to sleep.

### **Necessary Tests**

The basic tests that are done are a blood chemistry panel, CBC (complete blood count), and possibly urinalysis. A Bile Acid test is done to check for a liver shunt which is immediately suspected as being the cause of seizures in the case of very young puppies. A neurological and physical exam is also performed. A case history is taken as to when, where, and how the dog is manifesting, all to try to determine why. The basic tests are performed either by a primary care veterinarian, emergency care veterinarian, or a veterinarian neurologist.

Depending on the results of all the blood work, examination and answers to the

questions, the doctor will determine if any other testing is necessary, such as tests for specific toxins, viruses, bacteria, or parasites. Evidence may have shown up on the basic tests or there will be some other indicator that further testing needs to be done to rule out these other possible causes of seizures.

The brain imaging tests, MRI or CT scan and Cerebral Spinal Fluid (CSF) tap, must be performed in order for an actual diagnosis of idiopathic epilepsy to be given not merely a suspected or presumptive diagnosis. If the owner opts out of the MRI and spinal tap because of the expense, they cannot receive an actual diagnosis, only a presumptive or suspected one, yet treatment for epilepsy may still begin.

### **The Importance of a Diagnosis**

Even though our doctor was certain Toby had epilepsy and was willing to treat him without the more expensive tests, we chose to have the spinal tap and MRI performed because it was the only way we could truly know there was no other underlying cause for his seizures. We wanted an actual diagnosis and greater certainty of what we were dealing with. In addition we didn't want anyone telling us it wasn't epilepsy just because we were lacking a test.

If we want information that is as reliable as possible about which animal has idiopathic epilepsy, then we need an actual diagnosis even though this means that an owner will spend a considerable amount of money for the tests and a dog will be subjected to tests he does not necessarily need for treatment.

### **Conclusion**

We should share information so breeders can make more informed breeding choices. We should donate blood samples from our dogs for research to find the gene(s) responsible for canine epilepsy and develop a screening test. We need dogs with seizures to be diagnosed by running the necessary tests. We especially need blood samples from dogs affected with canine epilepsy.

Until there is a positive test to diagnose canine epilepsy and a screening test to identify carriers of this disease, we need to all work together to help defeat this disease.

Only a veterinarian can diagnose epilepsy. This article is not intended to diagnose epilepsy. For diagnosis and treatment of epilepsy, please consult a veterinarian.



## **TOBY'S FOUNDATION, INC**

*Making Tracks to Defeat  
Canine Epilepsy*

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## **Diagnosis of Canine Epilepsy: Plain and Simple**

By Pamela Douglas, J.D.

President of Toby's Foundation, Inc.

To help clarify the procedure for diagnosing idiopathic epilepsy I will share what I have learned with the hope that this will help.

### **Diagnosis By Default**

There is no positive test for epilepsy. It is a diagnosis by default, meaning all other causes have to be first eliminated in order to arrive at a diagnosis of idiopathic epilepsy. Idiopathic epilepsy, also referred to as primary epilepsy, means no underlying cause for the seizures can be found. Secondary epilepsy is when an underlying cause for the seizures has been identified such as a brain tumor.

Some veterinarians may not be experienced in dealing with epilepsy and this unfamiliarity can make it difficult to identify epilepsy. Toby was seen at three different hospitals by three different veterinarians while experiencing a partial seizure and none of these doctors recognized what they were seeing. Further confusion occurs because doctors do not always perform all of the tests necessary