



# SEIZURING PROBLEMS IN DOGS

## Facts About Seizures in Dogs

- The most common cause of seizures is epilepsy. There is not a known cause of epilepsy, though there may very well be a genetic link to the disease.
- Every seizing dog should have a chemistry profile performed to rule out minor causes of seizures before initiating therapy.
- Treatment for epilepsy should be initiated when the seizures occur more often than once every two months, or in clusters.
- Phenobarbital has both short and long-term side effects and should be used with caution. **Its use requires yearly screening tests** to make sure it is being maintained in sufficient levels in the blood.

Seizures are a somewhat commonly seen problem in dogs. Though the actual seizure is a stressful event for the dog to go through, and obviously is alarming for an owner to observe, a majority of seizures have a short duration with few long-term implications. The purpose of this handout is to discuss the potential causes of seizures in dogs, what kinds of diagnostics should be performed, treatment options and prognosis.

### What Causes my Dog's Seizures?

A majority of dogs that have seizures are epileptic. There is no known cause for epilepsy in dogs, though most researchers believe there may be a genetic predisposition for epilepsy. The typical epileptic dog begins having seizures between 2 and 6 years of age, though they may start seizing as early as six months or as late as 8 to 9 years old.

Other potential causes of seizures should be considered before a diagnosis of epilepsy is made. Liver disease, kidney disease, and

hypoglycemia can all result in seizures, and a blood test (costing about \$70) needs to be performed to rule out these possibilities before assuming the dog is epileptic.

### If my Dog is Epileptic, When and How Should it be Treated?

Treatment for epilepsy should be initiated when the dog is having more than one seizure every two months, or if the seizures are coming in "clusters." Clusters are episodes where the dog has multiple seizures over several hours. Even if the dog is then fine for months on end, clusters are very dangerous for the dog's health and preventative measures should be taken.

The treatment for epilepsy is phenobarbital. This is a barbiturate that raises the seizure threshold, making it less likely for the dog to seizure. Unfortunately, phenobarbital has bad short term and long term side effects.

After starting a dog on phenobarbital, it will typically act very sleepy and may

stumble when it walks. It will tend to want to eat more, drink more, and will need to urinate more. Fortunately, the dog will usually adjust to the drug within three weeks and return to normal behavior.

Phenobarbital is processed by the liver, and in doing so the liver suffers damage. Long-term administration of phenobarbital may cause liver disease and possibly liver failure. What this means is that a dog that may have lived 13 years may only live 10 or 11 because of phenobarbital use. The long-term side effects of phenobarbital are one reason we often wait to put a dog on the drug until it is seizing frequently enough.

### The Importance of Continued Monitoring...

Dogs on phenobarbital need to have their drug blood levels checked one month into therapy and then yearly for monitoring. The yearly monitoring is necessary because damage to the liver may increase or decrease the dose necessary to maintain therapeutic levels.

## WHAT ABOUT THE DOG THAT STARTS SEIZURING LATER IN LIFE?

Dogs which begin seizing late in life (e.g., older than 10 years) may have a brain tumor as the cause of the seizures. Dogs which seizure from a brain tumor do not respond to traditional treatment for epilepsy.

Diagnosis of a brain tumor is possible, but requires a CT scan of the head. This must be done under anesthesia and can only be performed in the Twin Cities, which has the only veterinary CT facility in Minnesota. Cost for this procedure runs around \$600.

If a tumor is found, depending on where it is, brain surgery can be performed and the tumor may be debulked or removed completely. However, often times owners opt to manage the tumor medically. Steroids are used to relieve inflammation of the

brain. This is a palliative therapy, and the tumor will eventually grow to a size which not even steroids can control the clinical signs. The idea of using steroids to extend the quality of the dog's life, which can vary from days to months.