

# Epilepsy: Treatable in Dogs

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## EPILEPSY and seizures



Witnessing a seizure can be one of the most frightening experiences we, as pet owners, encounter. Not only does it appear as if the pet is in pain, it also reminds us that we do not always have control of our pet's health. When we think of seizures, most of us think of the disease epilepsy. Epilepsy is the term for a disease that causes recurring seizures. Seizures are described as a sudden, usually brief, attack of altered consciousness, motor activity, or sensory phenomena. Seizures are caused by uncoordinated firing of the neurons (nerve cells) within the cerebrum (the front portion of the brain). Seizures are also called convulsions or "fits."

Seizures can occur singly or in groups. In general, a single, brief seizure is not life threatening. When seizures occur one after another in a group and continue, this is termed "status epilepticus" or simply "status." If your pet is in status, a veterinarian should see him immediately so the seizures can be controlled. If the seizures are not stopped, the animal can die from a combination of factors.

If a patient is in status epilepticus, the veterinarian will give an injectable drug like Valium, to stop the seizure.

It is important to remember that your pet is not feeling pain because of the seizure. In fact, the nature of seizures is such that the animal does not know what's happening. Some pet owners confuse the jerking that happens when a pet is asleep with a seizure - your pet can be awakened from a dream, but not from a seizure.

One or two seizures, with a long period in between, are usually nothing to be alarmed about. If there are more than two seizures, or if you have any concerns, make sure you call your veterinarian. Even if your pet has one seizure, be sure to note it and inform your veterinarian at your pet's next examination.

Epilepsy generally starts in animals 6 months to 5 years of age, usually at 2-3 years.

Epilepsy occurs in all breeds, including mixed breeds. Epilepsy can be a genetic trait. It can even be familial, where the epileptic disorder can pass down through generations within one family. Beagles, German Shepherds, Irish Setters, Poodles, Saint Bernards, Springers, Malamutes and Huskies, Cockers, Collies, Dachshunds, and Golden and Labrador Retrievers are some of the breeds which have a higher tendency to develop epilepsy. It is recommended that dogs with epilepsy not be used for breeding, since this tendency can be inherited.

### Diagnosis and treatment of epilepsy

Your veterinarian will determine if your pet has epilepsy and the appropriate

#### What triggers a seizure?

The actual triggering of a seizure is unknown, but most patients tend to seizure during periods of excitability. Often, the owner will state that the patient seizes while playing ball or when the children returned home from school. Some patients have been known to seizure while sleeping. Please do not confuse this with dreaming, where it is common for the patient to bark or shake while sleeping. A dreaming patient can be awakened, but a seizing patient cannot.

#### What you should do if your pet is having a seizure

- Remain calm.
- Do not get near the animal's mouth because you may get

treatment, if necessary.

## Diagnosis

First, your veterinarian will perform a detailed history of your pet. Certain information from you will help your veterinarian immensely in making the diagnosis. This information includes:

- What does your pet look like when he is having seizures?
- What is the duration of each seizure and how often do they occur?
- Are there signs that only appear on one side of your pet (is one side worse than the other)?
- Has your pet had a high fever?
- Has your pet been exposed to any toxins?
- Has your pet experienced any trauma recently or years ago?
- Is your pet current on vaccinations?
- Has your pet been recently boarded or with other dogs?
- Has your pet had any other signs of illness?
- Has your pet been running loose in the last several weeks?
- What and when does your pet eat?
- Has your pet had any behavior changes?  
Do the seizures occur in a pattern related to exercise, eating, sleeping, or certain activities?
- Does your pet show different signs right before or right after the seizures?

Your veterinarian will perform a physical and neurological exam and a panel of laboratory tests. Sometimes x-rays (radiographs) are taken. If the cause of the seizure cannot be identified, the condition is diagnosed as idiopathic or primary epilepsy. There is no test to diagnose epilepsy per se. Our tests simply rule out other causes of seizures.

## Treatment

Generally, treatment is only given if there are multiple seizures in some sort of pattern. Medication will only control the duration, severity, or number of seizures. If necessary, your veterinarian will prescribe a daily anticonvulsant (seizure-controlling medication), like Phenobarbital, or Primadone, which are also used for human epilepsy.

Your veterinarian will most likely have to experiment to see what dose will work with your pet's particular condition. Although treatment for epilepsy is lifelong, once the proper dose is determined, it is not difficult to treat a pet with epilepsy.

bitten inadvertently. Your pet will not swallow his tongue during a seizure.

- Keep your pet from hurting himself by removing anything he may knock over or break during the seizure.
- Observe your pet and time the seizure. Call your veterinarian if your pet's seizure lasts more than 10 minutes or if he is in status. This is a medical emergency.

## Phases of a seizure

- **Pre-ictal phase or pre-seizure:** Often called the aura, this phase is characterized by restlessness, staring into space, unusual affection-seeking behavior, salivating, whining, or hiding.
- **Ictus:** This is the seizure itself. It is termed grand mal when the whole body is involved and the animal is totally unaware of his surroundings. The animal typically "paddles" his legs, jerks, exhibits uncontrollable muscle activity, salivates profusely, and often urinates or defecates. When an animal experiences a petit mal seizure, he briefly loses consciousness without seizuring. The ictal period generally lasts less than five minutes.
- **Post-ictal phase:** This is the recovery period that occurs after the seizure. It is often characterized by disorientation, lack of coordination, wandering, or sleeping for a long period of time. It may also include temporary blindness. The post-ictal period generally lasts for less than an hour, but can go on for days. During the post-ictal period it is important to be there to comfort your pet since he did not realize what he was experiencing during ictus.

## Other causes of seizures

Seizures are not always caused by epilepsy. Other causes include:

- Toxins
- Infections
- Drug overdose
- Trauma to the head (e.g., if a pet is hit by a car)
- Complications from metabolic disorders such as diabetes mellitus, kidney, or liver disease
- Overheating

