

Seizure Disorders

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What is a Seizure?

Any involuntary behavior that occurs abnormally may represent a seizure.

Generalized (Grand Mal) seizures are the most common form of seizure in small animals. The entire body is involved in stiffness and possibly stiffness/contraction cycles (tonic/clonic action – like running on its side). The animal loses consciousness and may urinate, defecate, or vomit.

Seizures (neurological events) are often difficult to differentiate from fainting spells (cardiovascular events). Classically, true seizures are preceded by an aura, or special feeling associated with a coming seizure. As animals cannot speak, we usually don't notice any changes associated with the aura. The seizure is typically followed by a period during which the animal appears disoriented, even blind (this is called post-ictal). This period may last only a few minutes or may last several hours. Fainting animals are usually up and normal within seconds after the spell.

*****POST-ICTAL DISORIENTATION IS THE HALLMARK OF THE SEIZURE*****

Causes of Seizures and Diagnostics

Seizures may be caused by situations within the brain (such as trauma, tumor, or infection) or by situations centered outside the brain (such as low blood sugar, circulating metabolic toxins, low calcium, or external poisons). The first step is to rule out situations centered outside the brain, accomplished with blood testing. If these tests are negative, we usually assume epilepsy if the pet is under six years old. If the pet is over 6 years, there is a possibility of a brain growth. A CT scan will show us for sure.

Medication to Suppress Seizures: Phenobarbital

If seizures are occurring frequently enough, medication is used to suppress them. Treatment of any seizure disorder is aimed at suppressing or lessening the duration and intensity of the seizure. The drug of choice is phenobarbital. Sometimes other drugs are added like potassium bromide. Valium is used to stop a seizure in progress.

When to Begin Treatment:

When seizures occur in clusters, where one occurs after the other,
When isolated seizures occur once a month or more,
When infrequent seizures are getting longer and more violent

Phenobarbital is a long-acting barbiturate capable of suppressing seizure activity in the brain. It is an inexpensive drug, although the appropriate monitoring blood tests can amount to a few hundred dollars a year.

It takes 2 weeks to build up a blood level capable of suppressing seizures. This means that the effectiveness of a given dose cannot be assessed before this period. Phenobarbital blood level should be run after six weeks to determine the effectiveness of the dose being used. Phenobarbital blood levels, once therapeutic, are checked every 6 to 12 months or sooner if breakthrough seizures occur.

Common Side Effects:

Sedation - animals may become quite stuporous as they get used to this drug. This effect is temporary, lasting until the patient's metabolism adjusts (usually no longer than a week.). Excessive Thirst and Appetite - These side effects are annoying and may be permanent if they occur. If these side effects become too objectionable, the phenobarbital dose will have to be lowered and another medication added for seizure control.

Seizures at Home (When is it an Emergency?)

It is a lucky pet that never has another seizure after beginning medications; but an occasional breakthrough seizure (as disturbing as it may be to watch) is rarely of serious concern. It is important not to put yourself in danger around a seizing pet. You may get bitten during involuntary jaw snapping, and in the period of after seizure (post-ictal) disorientation the pet may not recognize you and may snap. There are, however, some emergency situations:

Seizure Activity Non-Stop for 3 minutes
More than one seizure in a 24-Hour Period
More than two seizures in a week

Can Seizure Medication be Stopped?

While there is some risk to discontinuing seizure medications, this may be appropriate for some patients. Dogs should be completely seizure-free for at least a year before contemplating stopping treatment. The trouble is, you can never be sure if the pet isn't having seizures or if the medication is stopping them. Phenobarbital is a medication that cannot be suddenly discontinued; if you are interested in discontinuing seizure medication, be sure to discuss this thoroughly with your veterinarian.