



SKILLMAN - (214) 887-1400

1910 Skillman Street
Dallas, TX 75206

OAK CLIFF - (214) 939-1600

1021 Fort Worth Avenue
Dallas, TX 75208

WHITE ROCK - (214) 324-1500

7446 East Grand Avenue
Dallas, TX 75214

SEIZURES IN PETS

Dr. Lindsay Shipp

Seizures are scary and stressful to witness – even for medical professionals! They are one of the most common emergencies seen at a veterinary hospital, and many dogs (and some rare cats) are affected by recurrent seizures. Here is some information to help you navigate seizures in your pet.

What is a seizure?

A seizure is an abnormal electrical activity in the brain. They can last for a few seconds to 5 minutes or more (most commonly they last less than 2 minutes).

What do seizures look like?

Most dogs and cats have 'grand mal' seizures in which they lose consciousness and have fully body convulsions. Loss of urine and bowel control is very common. Less commonly, some pets can have 'focal seizures' where only part of the body will twitch. The most rare type of seizure is called a 'psychomotor seizure' where a pet will have short bursts of strange but repetitive behavior (running in circles, seemingly attacking nothing, etc.).

Many pet owners will start to recognize signs of an impending seizure – called the prodromal phase. Excessive drooling, hiding, excessive panting, staring off into space, or clingy behavior are commonly reported signs.

After a seizure there is often a period of time (10 minutes-1 hour) called the post-ictal phase where many different neurologic or behavioral changes can be noted, including blindness, unsteady gait, pacing, anxiety, and drooling.

What causes a seizure?

There are many different causes for seizures which can vary depending on the breed and age of your pet. The more common causes are:

- Epilepsy – seizures with no known explanation (1- 4 years of age); Australian Shepherds, German Shepherds, Border Collies, Labradors, Standard Poodles, Dachshunds, and Vizslas are a few breeds that have suspected genetic links for epilepsy.
- Liver Shunt– an abnormal blood flow bypassing the liver (3 months – 6 years); small breed dogs are most affected – Yorkies are vastly over-represented.
- Low Blood Sugar/Hypoglycemia – seen in small breed young dogs (ex. Yorkies are common), older dogs with a mass that is producing insulin, or a diabetic patient that was overdosed on insulin
- Toxins – common toxins are some rat poisons, rare types of mold/fungi, and antifreeze; CATS – most cats we see with seizures are due to inappropriate application of a flea prevention that is NOT made for cats.
- Meningitis – inflammation around the brain. There are many different types of infections that can cause this – many of which are difficult to test for.
- Brain Tumor – these can arise anywhere in or around the brain and can cause many different clinical signs depending on the location; tumors often lead to progressively worsening seizures in older pets.
- Liver failure, kidney failure, electrolyte imbalances, congenital skull/brain malformations – are some of the many other common causes for seizures.

Diagnostics

- Baseline blood work (chemistry, CBC, thyroid, and heartworm test) is often ordered at the first event to help us identify medical causes
- Toxins – there are very little toxin tests readily available for pets. An in-hospital 'Tox Screen Panel' is a CSI myth.
- Advanced imaging (MRI) – to get a definitive diagnosis of epilepsy we need to make sure the brain looks normal. This is also the only way to look inside the skull to evaluate for brain tumors. SPECIALITY REFERRAL NEEDED
- Cerebral Spinal Fluid – a sample of the fluid that lives around the brain is needed to look for meningitis. SPECIALITY REFERRAL NEEDED

Treatment

If there is a medical problem identified via blood work or physical examination than it should be corrected first.

During an active seizure, Valium is often given to try and STOP the seizure. Dogs and cats will often act VERY disoriented or sedated after

administration of this medication. During an emergency it is often given intravenously or even rectally. There are other medications that can be given in cases where the seizure does not respond to repeated doses of Valium.

Long term therapy for epilepsy is not normally recommended unless there are more than 2 known seizure events in 6 months. There are many different medications to give REGULARLY at home to help stop the frequency of seizures. Phenobarbital, Keppra, zonisamide, and potassium bromide are a few of the most commonly used medications. All of these medications have pros/cons and some require therapeutic monitoring (blood work). The best medication to start with tends to vary between Veterinarian and Veterinary Neurologist. Additionally, the best medication for one pet and owner may not be the best medication for another pet and owner. Please discuss with your options with your Veterinarian to determine the best course for you and your pet. Lastly, many pets will require adjustments or additions to their medications due to break through seizures or undesirable side effects.

EMERGENCY

My pet is having a seizure at home! What do I do?

- Do NOT panic – this is a hard one – take a deep breath, mentally record the time and call your veterinarian. Seizures are scary and seem to last longer than they really do. It is very rare for a pet to have serious complication from an epileptic seizure.
- Do NOT put your hands in or around the mouth. It is common for pets to clamp their jaws and often results in unintentional bites. Please do not worry about stabilizing the head or neck like you would in a human (unless there is known head trauma).
- Small breed or young puppy? – apply karo syrup to the gums (a nickel sized glob).
- Bring your pet into the veterinarian for evaluation (even if the seizure stops before you get there) or treatment if still having a seizure. This can be hard if you have a larger dog that you cannot pick up with out assistance. There is nothing over-the-counter to give your pet to stop a seizure. After examination your veterinarian can prescribe medications to give at home in case your pet has another seizure in the future.
- CLUSTER SEIZURES – more than 2 seizures in a 24-hour period. When this occurs the likelihood of subsequent seizure activity increases exponentially. It is VERY important to seek veterinary care even in those patients with known epilepsy.
- STATUS EPILEPTICUS – seizure lasting more than 5 minutes. These patients need to be hospitalized – often on an IV drip and ideally are sent for 24 hour monitoring. 