

# Seizures in Dogs

A Brief Guide • Part of the Educational Pet Disease Series from Lap of Love

## Signs & Symptoms

### Disease Symptoms

- Increased seizure frequency
- Increased seizure intensity
- Increased seizure recovery time
- Reclusive behavior
- Clingy behavior
- Aggressive, atypical behavior
- Weight loss
- Cognitive dysfunction

### Specific Brain Tumor Signs

- Weakness, lethargy
- Confusion, depression
- Head tilt, loss of balance
- Decreased vision, voice changes
- Circling, hugging walls
- Behavioral changes, aggression
- Severe weight gain or loss
- Coma, paralysis

### Crisis Situations Requiring Immediate Medical Intervention

- Difficulty breathing
- Unable to walk
- Blue gums and/or tongue
- Sudden Collapse
- Crying in pain/sudden aggression
- Prolonged, unresolved seizures

Any pet that experiences a seizure that lasts over 5 minutes or cluster seizures (more than 3 in less than 24 hours) should be taken for ER medical attention to avoid possible serious complications.

## What Is It?

Seizures in dogs result from the dysfunction of a part of the brain called the cerebral cortex. Seizures are caused by an underlying disease that is classified as either primary or secondary. Primary diseases develop from within the brain or brain lining and may include health conditions like brain tumors or stroke events. Secondary diseases come from outside of the brain and may include metabolic diseases such as diabetes, or exposure to toxins. Seizures are further classified as either focal or generalized. Focal seizures are most common in dogs arising from a singular, small lesion affecting a limited area of the brain tissue. Possible causes of focal seizures include cancer, infections, abnormalities from birth, and trauma. A dog experiencing a focal seizure may cry as if in pain, drool, and experience changes such as aggression and disorientation without loss of consciousness. Paddling in the air and losing bowel control are symptoms common to both generalized and focal seizures. Generalized seizures involve the entire cerebral cortex and may be caused commonly by toxicities and systemic diseases. Idiopathic epilepsy, chronic seizure activity without a known cause, behaves as a generalized seizure causing loss of consciousness, imbalance, muscle twitching, and stiffening/straightening of the legs. Idiopathic epilepsy is the most commonly documented form of seizure disorders in dogs.

## Diagnosis

Observation of episodes in conjunction with a veterinary visit typically secures the diagnosis of epilepsy. As epilepsy is primarily a neurologic disease, consultation with a veterinary neurologist can provide an expert evaluation and access to advanced diagnostics. Further classification of the seizures as either focal or generalized helps to narrow down possible causes. Typical testing may include bloodwork, urinalysis, thyroid levels, EKG, and infectious disease and toxin testing (tick disease, heartworm disease, bartonella). MRI and CT are especially useful in the diagnosis of a brain lesion(s) such as trauma or cancer.

## Treatment and Management

Successful seizure treatment relies heavily on diagnosis of the underlying cause, if possible. Chronic seizure activity, regardless of primary disease treatment, often can be managed with conventional anti-epileptic medications. Anti-epileptic therapies are used when the frequency and severity of the seizures warrants the risk of the medications. Some dogs, such as those that have one seizure every 3-4 months, may not always benefit from medications that can have undesirable side effects. When needed, several anti-epileptic medications are available; Phenobarbital is one of the most commonly used. Novel effective anti-seizure medications are increasingly available as well. With chronic medication use, it is necessary to monitor bloodwork, including anti-epileptic drug levels if applicable, every 3-6 months and with any dosage changes. Generally, once anti-convulsants are started they should not be stopped. As seizures tend to occur during times of brain wave transitions, waking up, eating, falling asleep, and stressful situations can all be triggers, some of which are manageable.

## Prognosis

The prognosis for canine epilepsy depends on the cause of the seizures, the temperament of the dog, as well as owner compliance. Idiopathic epilepsy

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(unknown cause) generally responds well to typical therapy with oral medications, many of which can be compounded into easier to give forms. Secondary seizures (from an underlying disease) can have a favorable prognosis, if the cause can be acutely resolved or chronically managed. Seizures from serious diseases, such as brain cancer, have a guarded prognosis as the seizure medication may not work or will stop working over time. Serious consideration should be given to the ability to manage the cost, medications, time, and follow up needed with the agreed course of treatment. Talk with your veterinarian and veterinary neurologist about an individualized plan for your dog.

## Management Tips

### Consider providing:

- Easily accessible food and water
- Access to safe, quiet areas
- Warm, soft sleeping areas
- Calming, natural products
- Wet food instead of dry
- Low-energy, creative stimulation
- Ramps/stairs to common areas

### Try to:

- Be consistent with medications
- Gait stairs and dangerous areas
- Track appetite, weight, energy level, etc.
- Track seizure length, time, day
- Limit stress (kids, noise)
- Use gentle handling
- Continue preventative care
- Keep away from unknown pets
- Use a mobile veterinarian/groomer
- Avoid rough play with other animals

## Canine Seizure Phases

### Pre-Ictal Phase:

(seconds-hours)

Change in behavior prior to a seizure including anxiety, panting, attention seeking, head turning or hiding

### Ictal Phase:

(seconds-5minutes)

Active seizure time

### Post-Ictal Phase:

(may be 24-48 hours)

Abnormal period after a seizure, signs include: lethargy, pacing, depression, excitement, excessive eating and drinking

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Before your pet's condition becomes unmanageable, with deteriorating quality of life, it is important to begin end-of-life discussions. Learn about pet hospice and/or euthanasia services locally to be prepared.