



## SEIZURES

### What is a seizure?

Seizures are one of the most frequently seen neurological problems in dogs. A seizure is also known as a convulsion or fit. It may have all or any combination of the following:

1. Loss or derangement of consciousness
2. Contractions of all the muscles in the body
3. Changes in mental awareness from non-responsiveness to hallucinations
4. Involuntary urination, defecation, or salivation
5. Behavioural changes, including non-recognition of owner, viciousness, pacing, and running in circles

### What are the three phases of a seizure?

Seizures consist of three components:

1. The **pre-ictal phase**, or aura, is a period of altered behaviour in which the dog may hide, appear nervous, or seek out the owner. It may be restless, nervous, whining, shaking, or salivating. This may last a few seconds to a few hours.
2. The **ictal phase** is the fit or seizure itself and lasts from a few seconds to about 5 minutes. During this period, all of the muscles of the body contract strongly. The dog usually falls on its side and seems paralysed while shaking. The head may be drawn backward. Urination, defecation, and salivation often occur. If it is not over within 5 minutes, the dog may be in status epilepticus or going from one seizure into another without respite.
3. During the **post-ictal phase**, there is confusion, disorientation, salivation, pacing, restlessness, and/or temporary blindness. There is no direct correlation between the severity of the seizure and the duration of the post-ictal phase.

### Is the dog in trouble during a seizure?

Despite the dramatic signs of a seizure, the dog feels no pain, only bewilderment. They are generally self limiting and the dog is not conscious of them.

Dogs do not swallow their tongues. If you put your fingers into its mouth, you will do no benefit to your pet and will run a high risk of being bitten very badly. The important thing is to keep the dog

from falling and hurting itself. As long as it is on the floor or ground, there is little chance of harm occurring.

### **What causes seizures?**

There are a huge range of problems that cause seizures. These include metabolic problems and severe diseases such as brain tumours. Epilepsy is the most common cause and is of least consequence to the dog. But also the hardest to diagnose. There is no test for it – diagnosis is by ruling other causes out.

### **Now that the seizure is over, can anything be done to understand why it happened?**

When a seizure occurs, we begin by taking a thorough history concentrating on possible exposure to poisonous or hallucinogenic substances or history of head trauma. We will also carry out a full physical examination and detailed neurological examination along with various other tests. These tests rule out possible metabolic causes for brain dysfunction, heart, electrolytes, and blood sugar level.

If these tests are normal and there is no exposure to poison or recent trauma, further tests including a cerebrospinal fluid examination may be considered.

### **What can be done to prevent future seizures?**

We generally prescribe anticonvulsant therapy if the seizures are very frequent or severe. Treatment is designed to reduce the number and severity of the seizures. That frequency may be days, months, or years. We often do not recommend treatment unless seizures occur more frequently than every 30 days or unless they last more than 5 minutes.

It is important to avoid sudden discontinuation of any anticonvulsant medication. Even normal dogs may be induced to seizure if placed on anticonvulsant medication and then abruptly withdrawn from it. This would be fully discussed with you.

Blood drug levels are usually measured yearly to ensure the levels are in an effective range and have not become under or over dosed.

### **You mentioned status epilepticus. What does that mean?**

Status epilepticus bears special note. It is characterised by a seizure that lasts more than 5 minutes and are quite rare. When it occurs, the dog's life is endangered. Unless intravenous medication is given promptly, the patient may die. If you think your dog is in status, you should seek treatment immediately.