

General Seizure Information

What is a seizure?

A seizure refers to the clinical syndrome we see outwardly as the result of excessive and uncontrolled electrical activity in the brain. Seizures are usually self-limiting, and stop themselves after 1-3 minutes. Seizures can be further categorized as generalized (involving the whole body), focal/partial (involving only one area, most commonly the face), and they can look like anything.

What is idiopathic epilepsy?

The term epilepsy refers to any disorder characterized by *recurrent* seizures. Seizures always indicate brain dysfunction, but can be caused by conditions outside of the brain or inside of the brain. Idiopathic epilepsy is a condition characterized by recurrent seizures for which an underlying cause (outside or inside of the brain) is not identified. We suspect a hereditary/genetic component, as is the case in people. Seizures that occur secondary to an identifiable cause within the brain (brain tumor, encephalitis) is known as "structural epilepsy", whereas seizures secondary to an identifiable cause outside of the brain (low blood sugar, liver disease) is termed "reactive epilepsy".

What are the phases of a seizure?

There are three phases of a seizure. The first phase is known as the **pre-ictal phase** (sometimes called the aura). This phase occurs in the minutes before the actual seizure event, and represents the beginning of abnormal electrical activity in the brain. Behavioral changes are most common, and can occur attention-seeking or attention-avoiding, hiding, or pacing. This is not readily apparent in some pets.

The active seizure phase is called the **ictal phase**, and represents uncontrolled electrical activity in your pet's brain. This usually lasts 30 seconds to 3 minutes, and is variable in appearance. Generalized tonic-clonic seizures ("grand mal" seizures) are characterized by the patient losing consciousness, falling to the side, and having stiff or paddling limbs. This is commonly accompanied by opisthotonus (head/neck extension), jaw chomping, drooling, urination, or defecation. Focal seizures look different, and often involve jaw chomping, lip smacking, facial twitching, with or without apparent loss of consciousness. Vocalizing can often be seen before or after the event. It is important to know that while seizures can be difficult to watch, there is no pain associated with seizure activity for your pet. We do not think our pets suffer as a result of seizures as long as they are short in duration and infrequent. It is more likely distressing for us to watch than it is for them to experience.

The **post-ictal phase** follows the ictus. During the post-ictal phase many patients are disoriented, blind, pace, eat ravenously, and sometimes vomit. The duration of this phase is variable, and can last anywhere from minutes to several days, depending on the severity of the seizure event. A small percentage of pets have behavioral changes with aggression either before or after the seizure. Be very careful if your pet becomes aggressive, and do not attempt to restrain or hug your pet. They do not realize they are being aggressive, but can cause injury.

What do I do when my pet is having a seizure?

Don't panic and stay calm. The most important thing you can do is to make sure your pet is safe, by being sure they don't fall down the stairs, bang into sharp edges, or otherwise injure themselves. Do not be tempted to put your hand into their mouth - cats and dogs do not swallow their tongues, and can bite you during a seizure. Again, be careful and mindful during the seizure, and the post-ictal period if your pet becomes temporarily aggressive.

If your pet is on standard-release Keppra, we recommend giving an additional full dose following a seizure once your pet is able to swallow. This can be repeated once for additional seizure activity for a total of 2 extra doses per 24 hour period.

When is a seizure an emergency?

In general, there are two emergency situations involving seizures that warrant immediate veterinary care. These situations include **status epilepticus** and **cluster seizures**. Status epilepticus is defined as any seizure that lasts longer than 5 minutes in duration (this does not include the post-ictal phase and does not apply to focal seizures), or recurring seizures between which your pet does not return to a fully alert state. We recommend having your pet seen if a generalized seizure is lasting longer than 3 minutes, to be safe. Cluster seizures refers to 3 or more generalized seizures within a 24-hour period. Emergency treatment is recommended in these situations.

How often do we expect seizures to occur?

Seizures are predictably unpredictable. Anti-convulsant therapy does not cure epilepsy, and seizures will continue (in most cases) at variable intervals, even with effective treatment. Even well-controlled pets have the occasional seizure, and this does not mean treatment is not working. Our goal is to decrease frequency and severity as much as possible while minimizing side effects. Our goal is to decrease frequency to 1 seizure every 4-6 weeks, but each pet is unique. We are able to achieve much better control in some patients, but unfortunately about 25% of animals with epilepsy are more difficult to control, requiring multiple medications. Treatment success regarding other disorders, such as epilepsy secondary to structural diseases, can be even more challenging to control.

What type of records should I keep?

Keep a seizure log so that we can monitor your pet's seizure frequency, severity, and duration. Logs should include the date, approximate length, number, and severity of your pet's seizures. An accurate log will help us determine when a change in the medical program is indicated.

Goals of treatment

Anticonvulsants do not cure epilepsy. Even a well-controlled epileptic will occasionally have seizures. Our goal is to decrease the frequency and severity, as described above. Never stop anticonvulsants without veterinary supervision, even if things are going well! Stopping medications suddenly or in an inappropriate manner can lead to severe seizures. In some instances, we are able to wean patients off of medications. We usually like to achieve 6-12 months seizure-free before considering weaning, and this process is done very slowly to prevent seizure recurrence, if possible. If seizures recur with weaning, we often have to give the medication again.

FAQs Intervertebral Disk Disease

How often do I need to express my pet's bladder if he/she is unable to urinate?

You should express the bladder every 8-12 hours at home. Typically, pets regain the ability to urinate around the same time that they become able to move their legs.

2. What should I do if I have difficulty expressing my pet's bladder at home?

If you are unable to successfully express the bladder for 18 hours, it is imperative you take your pet to your regular veterinarian or bring them to the ER to have this done. Patients who have a full bladder will feel discomfort. They may also be in danger of experiencing serious medical complications.

3. I am afraid my pet will gain weight. Should I feed him/ her less during the time of exercise restriction?

No. The period of time that the doctor advises exercise restriction is also a time for healing. Please offer the amount of food you would give him if he were well. It is okay to eliminate treats or other snacks that not part of a normal healthy diet.

4. What should I do if my pet is not interested in eating or drinking?

Try not to worry. No one likes to be forced to eat when they are not feeling well. If your pet received IV fluids while in the hospital, it is likely that he/she is well hydrated. If your pet shows no enthusiasm for the normal diet, you can offer boiled chicken or boiled hamburger and rice.

5. How can I tell if my pet is uncomfortable?

Interpreting signs of pain in animals is a challenge even for veterinary professionals. Some common things to watch for include vocalization, difficulty in finding a resting position, restlessness, anxiety, disinterest in attention or affection, and lack of enthusiasm for food or treats.

6. When should I call to discuss my concerns with a veterinary professional?

Please call us anytime that you have concerns that have not been addressed by this handout or the release instructions. It is our pleasure to be a resource for you while your pet is recovering.

7. How do I care for the incision area?

There is no need to apply antibiotic ointment or other medication to the skin. Monitor the area for redness, swelling or discharge and call us if any abnormalities develop.

8. When will my pet be able to walk again?

Each patient will have a different rate of healing. It is important to watch for small improvements in your pet's condition every day. The maximum amount of recovery may take up to 6 months.

9. What causes a disk herniation or rupture?

Genetics, age and lifestyle can all be contributing factors to the development of Intervertebral Disk Disease.

10. How likely is it that my pet will have this problem again?

Unfortunately, we cannot predict the future. However, it is possible that this type of injury could occur again. In a recent study, it was found that between 15-25% of animals with intervertebral disk disease had a reoccurrence of signs. The best way to minimize the chance of future injury is to follow the lifestyle changes described in your pet's hospital release instructions.

11. What should I consider to be signs of improvement in my pet's neurologic status?

Movement of the affected limbs, voluntary urinations, and increased enthusiasm for activity are all signs of healing. Anything that you consider to be a return to normal behavior is a positive sign.

12. Will I have to retrain appropriate elimination behavior after the recovery time?

No. Your pet will return to the learned behavior before the neurologic injury.

13. How long should I wait before I am concerned that my pet has not had a bowel movement?

Be sure to always provide easily accessible fresh water. Normal bowel movements will return within 1-2 days of a return to normal food intake.

Please call us with any questions or concerns 330-670-2358