



Frequently Asked Questions

Metropolitan Veterinary Hospital Neurology Department

FAQs ABOUT SEIZURES:

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.

For additional questions, please contact our office:

Akron/Copley:

Monday, Tuesday, Thursday, Friday - 8:00am-4:30pm

Note: We are not in the office on Wednesdays

neurologyakron@metropolitanvet.com

(330) 664-6504 – Neurology Service Direct Line

(330) 666-2976 – 24/7 Metro Emergency Service

Cleveland East:

Monday-Thursday - 8:00am-4:30pm

Note: We are not in the office on Fridays

neurologycleveland@metropolitanvet.com

(216) 201-9840 – Neurology Service Direct Line

(440) 673-3483 – 24/7 Metro Emergency Service

What if I have questions after the neurology service has closed for the day?

You are more than welcome to leave a voicemail, or send us an email, and a member of our neurology team will get back to you within 1-2 business day. **If your pet is experiencing an emergency, please contact Metropolitan Veterinary Hospital Emergency Service or take your pet to the nearest emergency veterinary clinic.**