

How You Can Help Your Pet

For all four of the diseases discussed, the best way you can help your pet throughout a neurological disease is to dedicate yourself to providing proper drug administration and frequent drug level monitoring as recommended by your pet's neurologist. Keeping a close watch on behavioral changes and reporting them to the specialist is also important in protecting and managing your pet's health.

The following tips can help you make a more knowledgeable, rational decision when it comes to treating your pet.

- To find a veterinary neurologist in your area, please visit www.ACVIM.org and click on "Search For A Specialist."
- Bring a friend/relative to your appointments. Two sets of ears are better than one.
- Bring paper and a pen for taking notes and writing down your questions.
- Don't be afraid to ask any and all questions you may have.
- Be sure to ask if there will be changes in lifestyle during treatment. For example, should you continue routine vaccinations? Should you isolate your pet from other animals?
- Know the costs, side effects and how often treatment is needed.
- Ask for literature on the specific disease.
- BE CAUTIOUS of information discussed on the Internet! One official veterinary health website to reference is www.ACVIM.org.
- Research ways to finance treatment so the decision isn't based on economics.
- Talk to your general veterinarian, specialist and other pet owners to help you make your decision.
- Make sure your decisions are based on your pet's quality of life.
- Joining a support group can provide emotional strength throughout the treatment.

As part of its mission to educate the animal-loving public, the People Passionate about Animal Wellness (PPAW) Committee of the ACVIM Foundation has created this brochure. Special thanks to the individuals who volunteered their time and wisdom to make this possible including Dr. Jennifer Parkes, DACVIM (Neurology) and Dr. Julie Ducoté, DACVIM (Neurology).



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Diagnosis: Seizures



A Guide to Help You and Your Companion



Diagnosis: Seizures

Neurology is the branch of medicine that studies, diagnoses, treats and works to prevent diseases affecting the brain, spinal cord and nervous system, including those that cause seizures. This brochure can help the pet owner be more prepared should their pet experience a seizure. As you will see from the true and inspiring stories highlighted in this brochure, pets that have a neurological disease that causes seizures can still live long, healthy lives with the proper diagnosis and treatment.

In many cases, if your veterinarian suspects a neurological disease as the cause of your pet's seizures, s/he will refer you to an ACVIM Board-certified veterinary neurologist for further evaluation and treatment. In order for you to obtain the best healthcare for your pet, you will need to work closely with your entire Veterinary Healthcare Team which is comprised of your referring veterinarian, the specialist and the technicians.

What are Seizures?

A seizure is an abrupt increase of electrical activity that occurs within the brain causing a change in behavior or awareness. The seizure episode itself usually lasts only a few minutes during which the pet may fall down on their side, either becoming rigid or paddling their legs. It is not uncommon for the pet to lose control over their bladder and bowels. During this time, the pet is unconscious and completely unaware of what is happening. There is not much the owner can do for their pet during the seizure, but if s/he writhes as if trying to vomit, then make sure that your pet's head is lowered, so that s/he does not aspirate. Be careful not to put your hands near the mouth, however, since involuntary muscle spasms of the jaw could lead to an unintentional bite. Once it is over, there is usually a period of disorientation that may last a few minutes, hours or days in some cases. If the pet has more than two to three seizures within a few hours or if the seizure is constant for more than five minutes, it is important that you take your pet to the veterinarian or emergency clinic as quickly as possible.

There are many different neurological diseases that may cause seizures. In order to rule in or out the possible causes of a seizure, your specialist may recommend blood tests, radiographs, a CT scan or MRI of the brain, or cerebrospinal fluid analysis. Four of the most common diseases are Idiopathic Epilepsy, Brain Tumors, Meningitis and Congenital Hydrocephalus.



The treatment is well worth the money as long as she can maintain a good quality of life.

-Susan Gaunt

Kasey is such a great girl! We are very grateful that we gave her the opportunity to live longer.

-Pam Luther

Idiopathic Epilepsy

Idiopathic Epilepsy (IE) is a disorder of the central nervous system which can cause seizure activity for which no primary cause can be found. The first sign of IE is the onset of this seizure activity. Most commonly, your specialist will prescribe an antiepileptic drug, of which there are various forms. These are very well tolerated in the majority of dogs and cats. However, as with all medications, there may be side effects. The most common side effects include sedation, unsteadiness and vomiting/diarrhea.

Brain Tumors

A brain tumor is considered a cancerous mass, originating from the brain tissue itself, the meninges which cover the brain, ventricular system or blood vessels within the skull. As with most cancerous masses in our pets, the primary cause of most brain tumors is unknown. The first signs of a brain tumor, although quite variable depending on what area of the brain is most affected, may include seizure activity, vision loss, behavior/personality changes or a balance disturbance. Treatment options for brain tumors can include surgical

removal, radiation therapy and less often, chemotherapy. Surgical removal of a brain tumor can be a risky, but rewarding procedure, as the percentage of long term success depends on many factors including the type of tumor, location and size. There is also a risk of permanent damage to normal brain tissue during surgical removal, however a large number of these patients, especially cats, can do very well following surgery. It is important for owners to realize that during the diagnosis and treatment of a brain tumor, there may be changes in their pet's personality and behavior that may require them to alter the normal management of the pet's activity.

I would do it all over again, and I am so glad I relished every minute with her.

-Suzanne Cole

Meningitis

Meningitis is a condition characterized by inflammation of the meninges, the thin covering of the brain and spinal cord. The first signs of meningitis can include seizures, head/neck pain, lethargy, changes in behavior or levels of consciousness, changes in vision, balance abnormalities or limb weakness. In dogs, meningitis is most commonly immune mediated in origin. As with most immune mediated diseases, the most effective forms of treatment involve therapy with immunosuppressive drugs such as corticosteroids. The most common side effects seen with this therapy include an increase in thirst, urination and appetite, GI upset such as vomiting, diarrhea or stomach ulcers, panting and exercise intolerance.

Congenital Hydrocephalus

Congenital Hydrocephalus (CH) is a condition where there is an excessive amount of spinal fluid within the ventricular system in the brain. The ventricular system is a system of fluid filled cavities within the brain that hold spinal fluid. The first signs of CH can include seizure activity, behavior changes or circling. Treatment for CH can be in the form of medical or surgical management. Medical management will often focus on decreasing the amount of spinal fluid that is produced by the body. Surgical management requires the placement of a shunt to redirect spinal fluid from the ventricular system in the brain to the abdomen.

Kasey

Our five-year-old Golden Retriever, Kasey, had her first seizure just two months ago. While at first, her veterinarian thought that she had epilepsy, she soon had a series of three seizures within a 24 hour period. A few days later, we took Kasey to a neurologist for an MRI. Through this procedure, we discovered that Kasey had developed a brain tumor.

After some research, we discovered that there was a new procedure for animals that uses ultrasound waves to break up the brain tumors which are then removed through the use of an aspirator. The survival rate is thought to increase with the use of this advancement. We discussed these findings with our neurologist and it was decided that Kasey would have the surgery to remove her tumor. After draining some fluid from the incision site and some minor temporary vision loss, she is now eating and feeling much better and will return for a checkup followed by three weeks of radiation treatments. After the treatments have been completed, the average prognosis is 16 months, however Kasey's specialist is optimistic since he was able to remove the entire tumor, just leaving microscopic cells.

She is such a great girl! We are very grateful that we gave her the opportunity to live longer.

-Pam Luther



Kristie

Kristie is our six year old pug who has had a history of Vestibular Disease, an inner ear disease that has caused her to have problems walking, eating, drinking and tilting her head to one side. While Kristie has been successfully treated for those symptoms, recently she had her first in a series of seizures. We immediately took her to her veterinarian



where blood work was performed. Since the results were normal and there was no fever, she was sent home. Soon after, she had a second seizure. We returned to her vet where she stayed for observation. While there, she turned blue during a third seizure. Kristie was rushed to see a neurologist at the nearest specialty hospital. An MRI was performed, which determined that Kristie had Meningitis. She consequently had two additional seizures, was placed on medication and was hospitalized for three days. Since her release from the specialty hospital, she has been placed on a six week regimen of antibiotics along with medications twice a day, which have stopped her seizures. The treatment is well worth the money as long as she can maintain a good quality of life. We are happy that Kristie's future looks good, even though she will need to take medication for the remainder of her life.

-Susan Gaunt

Baby Love

Baby Love was born from an underweight stray picked up by animal control just a few days before giving birth. She was the smallest of the litter and was rarely seen nursing, so she had to be fed with bottles. She came to live with me at four weeks old, and after recovering from kennel cough and ringworm, she started to blossom. She buzzed around the house, and since she would run into everything without stopping, we soon realized she was blind. Her behavior was abnormal as well as her walking and balance. I started a fund raising campaign which raised the funds for an MRI which revealed that she had hydrocephalus. Her condition was severe and only shunt surgery would improve her symptoms and quality of life. She became a little celebrity, as people generously donated towards the surgery. Afterwards she recovered well and there was a noticeable difference in her symptoms. Her mind was clearer, she was able to do more physical things and her love of life was amazing!

When her shunt quit working a few months later and the symptoms returned, donations helped to fund a second



surgery. But a few days after returning home she started having violent seizures. After doing all that could be done, we had to say goodbye to her a month later. I would do it all over again, and I am so glad I relished every minute with her. She touched many people's lives in the short time she was here. Her story and additional congenital hydrocephalus information can be found at www.pethydro.org.

-Suzanne Cole



Chase

Our seven year old Golden Retriever mix, Chase, had a sudden onset of seizures three months ago. It started one night when we suddenly woke up to a loud noise followed by Chase barking, stumbling, wetting on the bed and making a strange bicycling motion with his paws. The following night he had two severe seizures, collapsing after the second. We rushed him to the vet where he was hospitalized for five days under the care of a veterinary specialist. During his stay, he was treated with medication and given a series of tests including an MRI, abdominal scan, blood work and a spinal tap, none of which revealed the reason for his seizures. However, since starting his routine medication, Chase had been seizure free until just recently. Because of these recent seizures, the therapeutic level of his medication is being tested to see if the dose needs to be adjusted. Once adjusted, Chase will have a very good quality of life, only experiencing small seizures from time to time, as long as his medication levels are tested every six months for proper dosage.

-Kayreen Altman

To read more survivor stories, please visit our website at www.ACVMFoundation.org.