



Education Newsletter



Edition 4, August 24, 2020, BARRC Education Committee

Last edition we started an education series on performance events and in conjunction with the article on Fast CAT, we published a survey on the BARRC member Facebook page (posted July 12th, 2020) to determine which performance events were of most interest. The top vote getter was nose work with tracking being a close second. So, for this edition, we'll be covering nose work, also known as scent work. In addition, we have a very informative article on idiopathic epilepsy in Rhodesian Ridgebacks written by Cindi Pike. Cindi is a retired nurse who has become an expert in this form of canine epilepsy because her wonderful boy, Trooper, started having seizures a few years ago. Different from juvenile myoclonic epilepsy (JME), for which we have a genetic test, idiopathic epilepsy is becoming more common. Many thanks to Cindi Pike for her contribution to the newsletter this month and her willingness to share her knowledge and experience with this horrible condition. - Wendy Peirce, Editor and Chair, BARRC Education Committee

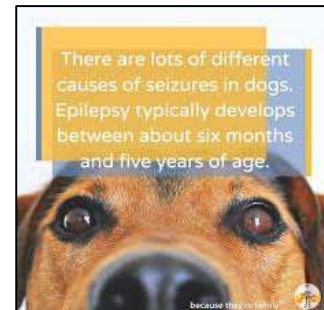
Canine Idiopathic Epilepsy – what you need to know

Contributed by Cindi Pike

“Oh my gosh. That dog is having a seizure!”

Frightening words to hear in a park, dog show, or on a walk. And even more horrifying for the owner of the afflicted dog. Let's look at the definition and process of canine seizures, how they are impacting owners and their dogs, and understand what we can do about them.

Epilepsy by definition is the occurrence of signs and/or symptoms of abnormal, excessive or synchronous neuronal activity in the brain¹. Think of the normal electrical activity in your dog's brain suddenly going haywire and becoming like a fireworks display instead. There may be an aura (the pyro technician lighting the fuse) wherein the dog may become agitated, aggressive, salivate and/or throw up, run around excitedly for no reason or become suddenly non-responsive to you. Or nothing at all. Then the seizure occurs (the fireworks explode in the sky). The dog will stop, stiffen and begin to fall to the ground. Often in canines these seizures are tonic-clonic: tonic, meaning a stiffening of the appendages followed by clonus, a rapid rhythmic “running in place” or “paddling” motion. There is complete loss of consciousness, cessation of breathing occurs and often central cyanosis (gums and tongue will have a bluish to purplish coloration due to not breathing). Are you feeling worried yet? Good, you should be. It's what every dog owner with an epileptic dog goes through. But don't stop, read on.



The dog's seizure will last from 30 to 120 seconds on average which may seem like an hour to the worried owner. Then the kicking/paddling will begin to slow, breathing will return, gums and tongue will pink up, and everything starts to come back to “normal”. Except the owner's heart rate. Now the dog enters the aura stage (the last remnants of the fireworks fall from the sky) during which they may remain unresponsive for a time, begin to try to stand, exhibit non-recognition of owner/surroundings, and ataxia (impaired balance and/or coordination)

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during which time they may fall. Some dogs may also exhibit aggression, which seems to be more prevalent in dogs than bitches.

Epilepsy itself has been found to be more prevalent in purebred dogs and more so in dogs than bitches. Two unprovoked seizures at least 24 hours apart deems the process epilepsy. In this case unprovoked means an event not brought on by head trauma, brain tumor, poisoning, or any other metabolic condition. Most dogs will experience these seizures between 1 and 5 years of age. This results in a diagnosis of *idiopathic epilepsy* (unknown cause or pathology)². In-between these events, the dog leads a perfectly normal life. But their owner never does, looking for signs of “something” to come and sometimes being a helicopter parent. It’s no different for human parents of an epileptic child. Both situations can cause great emotional and physical stress compounded by the cost of frequent vet visits and medication costs.

There is also a form of epilepsy known as *juvenile myoclonic epilepsy* (JME) for which there is a known genetic marker in many breeds, including Ridgebacks, and typically seen in dogs under 1 year of age. We will not address this form of the disease in this discussion.

So, you have this wonderful Ridgeback that you’re completely bonded with and it starts to have a seizure. What do you do? First, yell for help if it’s nearby. Sharing a bad situation is always a bit reassuring. Next, try to ease the dog down slowly to the ground, away from anything on which it may injure itself, especially the head. If the dog is in direct sunlight drag the dog, if you’re able, into shade, or provide shade, even if it’s your shadow. A seizure is a catabolic process, meaning it produces a great deal of heat from the profound increase in muscle activity. If you can provide wet and/or cool towels place these on the withers of the dog. Protect the dog’s head from injury but DO NOT under any circumstance place your hand/fingers into or around the dog’s mouth. Ridgebacks have a bite strength of 224 pounds per square inch. Enough said. Note the time the seizure started, what, if anything led to the seizure (called the prodromal symptoms, such as behavior, ingestion of material, loud noises or bright flashing lights, stressors of any kind), the motion of the dog’s appendages, how long the seizure lasts, how long the aura (the time just after the seizure) lasts, the dog’s behavior during aura, and any other behavioral abnormalities or return to normal behavior. Next, watch for any signs of aggression and remove yourself, anyone else, and any other



pets from the area of the dog. Wait for a return to normal then comfort your dog. Your dog will have no idea that he/she was the one who checked out for a time and may be overly enthusiastic in greeting you. Lastly, go immediately to your vet or nearest 24-hour vet hospital for evaluation. Don’t forget that all-important time table of events before, during and after the seizure as it can often assist a vet in diagnosing what may have caused the event.

Symptoms of Seizures in Dogs

Generalized or mal seizures	Focal seizures	Psychomotor seizures	Cluster seizures
<ul style="list-style-type: none"> - Dog may fall over, go stiff, or shake violently - Salivation or foaming at mouth - Accidental urination or defecation - Whining and growling 	<ul style="list-style-type: none"> - Limited to specific body part - May not look like more than just a twitch 	<ul style="list-style-type: none"> - Odd behavior, like chasing tail or appearing to see things that aren't there - Lasts only a minute or two 	<ul style="list-style-type: none"> - Multiple seizures over 24 hours

from the spruce

I would personally recommend a follow-up with a canine neurologist if possible. Just as a human General Practitioner can perform a great exam and start the diagnostic process but then a specialist takes over, it is the same with veterinarians. A Veterinary Neurologist is a SPECIALIST in



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neurology, who understands all the finer aspects of proper care, diagnosis and appropriate treatment and medications of epilepsy and its components.

Treatment for epilepsy often begins after two witnessed seizures to confirm this was not just a one-time occurrence due to external influence (low blood sugar, fever, dehydration, thyroid malfunction, tumor, trauma, ingestion of noxious material, flashing lights, severe stress). Medications are varied and some carry concerning adverse effects over time requiring periodic blood levels. Most common drugs for dogs are Phenobarbital, Potassium Bromide, Levetiracetam, Zonisamide and Clonazepam. CBD oil is becoming an accepted treatment which has also been a successful adjunct therapy in human children. However, many vets cannot prescribe CBD but may advise the owner for dosing. Acupuncture treatments have also been found to decrease incidence or severity of seizures. Ice packs placed over the withers of the postictal (after the seizure) dog has been found beneficial in cooling after the event and have also been noted to have stopped and/or prevented a seizure from happening. The main focus of all treatments is to decrease the frequency and severity of the occurrences and minimize anything affecting the quality of life. Because epilepsy is believed to be caused by a genetic mutation on a cellular level these dogs should not be bred. In the general dog population, the incidence of epilepsy is 0.5-5%. Many other breeds are more affected in general than Ridgebacks, including Labrador and Golden Retrievers, Belgian Tervurens, Shetland Sheepdogs, Keeshonds, English Springer Spaniels, Vizslas and German and Australian Shepherds. And in some breed clubs, the breeders are often waiting until dogs reach the age of 3-4 years before attempting to breed a pair of dogs to see if there has been any seizure activity that would obviously preclude the pairing.

There is no known singular cause of idiopathic epilepsy (human or canine) nor a known cure. However, the canine neurologist can assist the owner in helping their dog, and ultimately the owner, to live a more normal life. It is helpful for owners of these dogs to share their information, support and understanding. Epilepsy is NOT a death sentence, and generalized seizures (tonic-clonic) are more readily controlled than a focal seizure (occurring in only one area of the brain). A dog and their human can lead "normal" lives and pursue regular dog activities together, although the owner should always be vigilant of their dog. The owner will just need to be aware that theirs is a "special needs" dog, requiring observation to detect triggers for a seizure (unfortunately this comes with time and after a seizure occurs) and try to avoid them. It is the continued diligence of reputable preservationist Ridgeback breeders who are observant of their dogs, encourage contact from their "puppy people" in the event of a dog's seizure, and removal of affected dogs from their breeding program that will help keep the incidence of idiopathic epilepsy to a minimum in our breed. It is most certainly a horrible thing to witness in our beloved Ridgebacks, or any animal, but with knowledge comes the power to help our affected dogs live a healthy life even with epilepsy.

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Canine Epilepsy Terminology

Automatisms – repetitive motor activity that resembles movement under voluntary control, such as lip smacking, licking or chewing

Atonic seizure – a sudden loss of muscle tone lasting several seconds or more, not following a tonic or myoclonic event

Cluster seizures – a group of seizures within a shorter than normal interval; clinically defined as 2 or more seizures within a 24-hour period

Focal seizure – seizures originating from only part of the brain and therefore also only affecting part of the body

Generalized seizure – seizures originating from both hemispheres of the brain

Idiopathic epilepsy – epilepsy without an identifiable structural cause, typically assumed to be genetic.

Interictal period – the time between seizures

Myoclonic seizure – sudden, brief contractions of a muscle or group of muscles

Postictal period – the time immediately following a seizure, where behavioral changes may be observed

Refractory epilepsy – seizures that occur even during treatment with therapeutic doses of antiepileptic medication, i.e. the medication stops being effective

Status epilepticus – a serious condition where seizures follow closely on one another without a break, or where a single seizure lasts more than 5 minutes

Tonic seizure – a sustained increase in muscle tone (i.e. stiffening) lasting up to several minutes

Tonic-clonic seizure – a seizure where the tonic phase is followed by shorter, clonic (jerking) movements



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The Nose Knows!

Although Rhodesian Ridgebacks are known as sighthounds in the United States, they are often considered scenthounds in other parts of the world. So, let's put those noses to the test. There are a number of performance events that can use a Ridgeback's nose including tracking, barn hunt, Earthdog and scent work. These events are a lot of fun for both dog and handler and are not that difficult to learn. Let's take a look at what scent work entails.

Is it scent work, nose work, scentwork or nosework?

The sport of Scent Work is based on the work of professional detection dogs (such as drug dogs), employed by humans to detect a wide variety of scents and substances. Although the spelling of the activity varies by who is writing about it and scent work and nose work are often used interchangeably, from a performance event and titling perspective scent work and nose work are slightly different. The American Kennel Club (AKC) calls their trials "Scent Work". The National Association of Canine Scent Work (NACSW), who first held scent trails, call it K9 Nose Work®. Along with NACSW, there are organizations such as United Canine Scent Sports (UCSS), Performance Scent Dogs (PSD) and other organizations that hold trials, tests and element specialties that will also call the activity nose work.

In AKC Scent Work, dogs search for cotton swabs saturated with the essential oils of birch, anise, clove, and cypress. The cotton swabs are hidden from both handler and dog in a pre-determined search area and the dog has to find them. Teamwork is necessary: when the dog finds the scent, he has to communicate the find to the handler, who calls it out to the judge. In NACSW trials, birch, anise and clove are used.

Although both AKC and other nose work organizations challenge dogs to detect hidden odors, there are some differences in the details. For example, NACSW and USCSS events include vehicle searches whereas AKC Scent Work has a buried element and a handler discrimination division.

Some handlers enter events from all of the different organizations as each event presents new and different challenges for the dog. It keeps the scent work interesting and continually expands the dog's capabilities.

AKC Scent Work Trials

AKC Scent Work is broken down into two divisions. The Odor

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Scent Work September!

You asked for scent work education and BARRC is delivering with the help of Megan Hundley, a scent work trainer. Megan has graciously offered to provide BARRC members with a 4 class series in September and is donating the proceeds back to BARRC!

Beginner Online Scent Work Classes

September 8th, 15th, 22nd & 29th

One hour online lecture and

Private Facebook group for discussion and homework

\$100 for the session (4 classes)

[Click here to view flyer on the BARRC.org web site](#) or you can find it on the BARRC Facebook page.

Please contact Megan Hundley at dogshaveamazingnoses@gmail.com for registration (8/31/20 deadline) or for more information on this wonderful opportunity.





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Search Division, in which the dog is searching for the odor of one or more specific essential oils, and the Handler Discrimination Division, in which the dog is searching for the scent of their handler.

Searches in AKC Scent Work are completed in a variety of environments, known as “Elements.” The Elements in AKC Scent Work are:

- Container: The target odor is concealed within a container (like a box or briefcase), and the dog must indicate in which container the scent is hidden.
- Interior: The target odor is concealed on or in an object in an indoor search area.
- Exterior: The target odor is concealed on or in an object in an outdoor search area despite weather or distractions
- Buried: The target odor is concealed within a small container and then buried underneath the ground.

Each element in the Odor Search Division, and the Handler Discrimination Division, has four difficulty levels: Novice, Advanced, Excellent, and Master. Dogs will begin with the Novice level classes and move up as they earn titles, and may progress through the elements at different speeds.

In AKC Scent Work, handler-dog teams are judged on a qualify/non-qualify basis. The dog must use their nose to search out the hidden odors, and then alert their handlers when the odors are detected. Dogs may paw, bark, point with their nose or body, sit, lie down, or use any other behavior to communicate the location of the odor. The dog is the star of the Scent Work trial with the handler letting the judge know when the dog has found the scent. In order to earn a qualifying leg, the handler-dog team must find and call all hides in a search area within the time allowed for the class without any non-qualifying faults. Ranking is based on the fewest faults and then on time to complete the exercise.

Even if competing isn't your thing, scent work can be a very rewarding activity for you and your dog. It can help your dog build confidence, redirect unwanted behaviors and give dogs an outlet to burn energy by using their bodies and their brains. For more information check out this [Whole Dog Journal article](#) on nose work or the [AKC Scent Work site](#). Better yet, take the Beginning Scent Work classes offered in September as a fundraiser for BARRC. See the sidebar on page 4 for more information.



Many thanks to Rhodesian Ridgeback Club of the U.S. members for sharing wonderful pictures of their scent work dogs in action: Kathy Thompson, Charlene Rabinak, Diane Stauffer, Laura Koester and Debra Sorosky.

