Health Concerns For Beagles

The Notorious Nasty Nine

Beagles generally are healthy dogs, but nine problematic conditions plague the Beagle more than any other…..
Seizures, Thyroid, Cherry Eye, Heart Disease, Ear Infections, Glaucoma, Allergies, Hip Dysplasia, and Disc Disease.

Sounds like a lot, but when compared to most other breeds the Beagle is one of the most care free of all dog breeds. But most importantly, especially if you are reading this and you are a "breeder", all of these conditions are manageable if caught soon enough and many are preventable through careful breeding, simply because some are genetic.

Seizure Disorders: Over the past few years there has been a growing concern among beagle breeders over the increased incidence of epilepsy in our breed. It is the intent of this paper to describe the syndrome and its genetic significance. There is a glossary of terms at the end to aid the reader in understanding some of the concepts. A bibliography was included, not because expect most readers to wade through the scientific treatises, but because I wanted to give credit for the material from which I drew so heavily. On a few occasions I have given an opinion, and I hope clearly stated that it was opinion only.

Although epilepsy has been found in many, many breeds, those most often afflicted are: all three varieties of poodles, Keeshonden, German shepherds, Belgian shepherds, and **Beagles**.

Epilepsy is a dysfunction of the brain which manifests itself with some type of seizure. The seizures may vary from mild to extremely severe, in some cases causing death. Many terms have been used to mean seizure, such as convulsion, fit, or epileptic attack. These terms are used to describe the abnormal behavior that occurs at any one time, whereas epilepsy is the term that applies to the disease itself.

There are three main types of seizures, and if your dog has appeared to have any of them, he is a strong suspect for epilepsy:

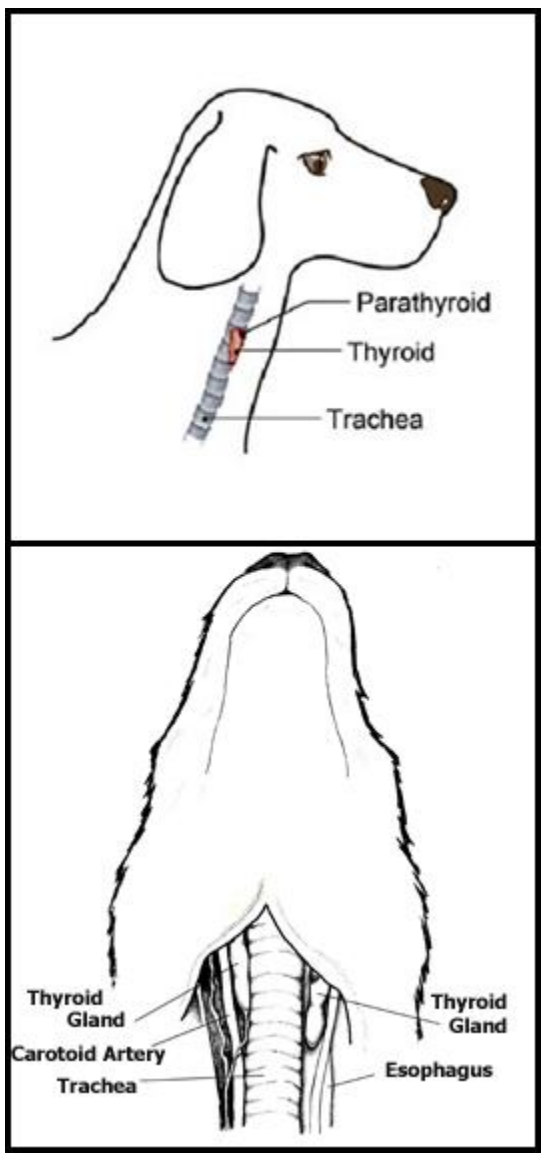
1. One of the less common forms of epilepsies is called "petit mal" which is quite brief, and only very subtle changes in behavior can be seen, such as staring, falling, etc. It is possible that those seizures seem to be less frequent because they would be harder to detect, and therefore would not be reported. Although these seizures do not seem to be as serious as others, their causes are identical.
2. The second and most common type of seizure is what I call classical epilepsy. This epilepsy has three phases. The first phase may or may not be seen and immediately precedes the actual seizure. This phase is called the "aura," during which the dog seems to sense the onset of a seizure and has brief changes of behavior such as staring, stumbling, psychological depression, often the dog will try to get to its owner. This phase usually lasts only a few seconds and therefore is often missed. The second phase is the actual seizure with falling, shaking of limbs, running movements, loss of consciousness and loss of bowel and bladder control being the usual signs. The third phase is the recovery period and can last from a few minutes to an hour depending on the severity of the seizure itself.
3. The third and another less common form is the seizure that lasts for 15 minutes or more. This is called "status epilepticus" and can cause damage or even death if left untreated.

The origin of epilepsy can be either genetic or acquired. Acquired epilepsy can be caused by:

1. Infections (viruses such as distemper, bacteria, fungi, and protozoa such as toxo- plasmosis,
2. Blood chemistry problems (oxygen, sugar, salts, vitamins and toxic wastes);
3. Toxins (insecticides, lead, mercury, insect or snake bites);
4. Trauma (head injury or electrocution);
5. Tumors of the skull or brain.

Of all of the causes of seizures, "idiopathic epilepsy" is by far the most common. Idiopathic means that the causes are unknown although many of them are known to be inherited.

Again, seizures can be caused by numerous things as in poisons, skull injury, brain tumor, viral and bacterial infections, congenital malformations, heat stroke, parasites, fungal infections, low blood sugar (diabetics), and so on. By doing a physical exam and blood work, most causes can be eliminated. The usual age of onset is 18 months to 2 years, but in **Beagles** it has been seen as early as 3 months and as late as 9 years. Stress is often the trigger. So if you gun hunt, field trial or run your beagle regularly, at the first signs of seizures get the dog checked out and do not breed the dog until you find out if it is genetic. No matter how great a dog is in the field, there is no excuse to "spread" this fault any further.



Hypothyroidism: The most common cause of canine thyroid disease is autoimmune thyroiditis (estimated 90% of cases). Thyroiditis is an immune-mediated process that develops in genetically susceptible individuals and is characterized by the presence of antithyroid antibodies in the blood or tissues. Thyroiditis is believed to start in most cases around puberty, and gradually progress through mid-life and old age to become clinically expressed hypothyroidism once thyroid glandular reserve has been depleted. During this process, the animal or person becomes more susceptible to immune-mediated or other diseases affecting various target tissues and organs. The prerequisite genetic basis for susceptibility to this disorder has been in established in humans, dogs and several other species. So again, at the first signs of thyroid problems get the dog checked out and do not breed the dog until you find out if it is genetic. No matter how great a dog is in the field, there is no excuse to "spread" this fault any further.

Clinical Signs of Canine Hypothyroidism {Thyroid Disease}

Alterations in Cellular Metabolism
weakness / stiffness / laryngeal paralysis / facial paralysis / tragic expression / knuckling or dragging feet / muscle wasting / megaesophagus / head tilt / drooping eyelids

Neuromuscular Problems
lethargy / mental dullness / exercise intolerance / neurologic signs polyneuropathy / seizures / weight gain / cold intolerance / mood swings hyperexcitability / stunted growth / chronic infections

Dermatologic Diseases
dry, scaly skin and dandruff / coarse, dull coat / bilateral symmetrical hair loss / rat tail, puppy coat / hyperpigmentation / seborrhea or greasy skin pyoderma or skin infections / myxedema / chronic offensive skin odor

Reproductive Disorders
infertility of either sex / lack of libido / testicular atrophy / hypospermia aspermia / prolonged interestrus interval / absence of heat cycles / silent heats / pseudopregnancy / weak, dying or stillborn pups

Cardiac Abnormalities
slow heart rate (bradycardia) / cardiac arrhythmias / cardiomyopathys

Gastrointestinal Disorders
constipation / diarrhea / vomiting

Hematological Disorders
bleeding / bone marrow failure / low red blood cells / low white blood cells / low platelets

Ocular Diseases
corneal lipid deposits / corneal ulceration / uveitis Keratococonjunctivitis / sicca or dry eye / infections of eyelid glands (Meibomian gland)

Other Associated Disorders
lgA deficiency / loss of smell (dysosmia) / loss of taste / glycosuria / chronic active hepatitis / other endocrinopathies adrenal, pancreatic, parathyroid

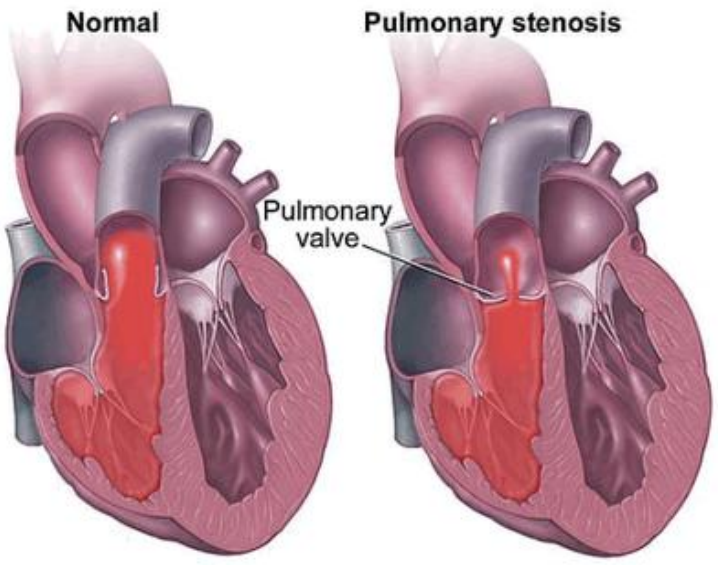
---

Cherry Eye: Dogs have a "third eyelid" that contains a tear gland that helps with the production of tears. It is located in the corner of each eye. Normally, you cannot see this gland.

Canine cherry eye is an eye condition in which the gland of this third eyelid comes out of its normal position and becomes red and swollen, making it looks like a cherry - thus the name cherry eye. If you want to be fancy, cherry eye is medically known as "nictitans gland prolapse", or "prolapse of the gland of the third eyelid".

Canine cherry eye can occur to dogs at any age and it affects males and females equally. Certain breeds of dogs are predisposed to this eye condition. They include: American Cocker Spaniel, Bulldog, **Beagle,** Lhasa Apso, Shar-pei , Shih tzu, Boston Terrier, Bull Terrier and Bloodhound.

The preferred conventional treatment of this eye condition is to surgically reposition the gland. Many hunters just simply have the gland “cut out”, but complete removal of the gland is not advisable because the gland of the third eyelid is responsible for producing around 35 percent of the watery part of tears. Removing this gland will result in a condition called dry eye.



Heart Disease: One common heart disease seen in the Beagle is pulmonic stenosis, which is a narrowing of the connection between the right ventricle and the pulmonary artery, most commonly due to a malformation of the pulmonic valve. When this happens, it becomes more difficult for the right ventricle to pump blood, resulting in an obstruction to blood flow from the right side of the heart. Since the right ventricle has to work harder, the right side of the heart becomes bigger.

The obstruction to blood flow from the right side of the heart will cause varying degrees of heart damage which worsens with age. With moderate-to-severe pulmonic stenosis, your dog may experience signs associated with low cardiac output and/or right-sided heart failure, such as abnormal cardiac rhythms, respiratory difficulties, fainting, tiring with exercise, or sudden death while out running a rabbit or other game.

Moderate-to-severe pulmonic stenosis may be treated by surgery.

Ear Infections: Because of their long ears, Beagles are prone to ear infections. Common symptoms of ear infections include incessant scratching of the affected ear, head shaking, and you may notice a foul odor and discharge from the ear. Many refer to “Beagles” as having a “Beagle Smell”, no matter how much you bath them. Most times it is not a natural odor coming from the Beagle, but rather the odor of “infection” coming from the Beagle’s ears. Dogs' ear canals are L-shaped. This shape helps prevent damage to the eardrum. However, because of this shape, it is extremely easy for the ears to trap moisture, debris, and parasites. The end result? A high chance for dogs to develop ear infections.

Although some dog breeds are more likely to get ear infections than others, any dog can develop an ear infection. According to veterinarians, dog ear infections are one of the most common ailments that affect dogs every year. Make sure, for example, that there are no foreign bodies buried inside your dog's ear. Brown waxy debris and other signs of infection could be caused by bacteria, by a fungus, or by ear mites. Without knowing exactly the underlying cause, it is like shooting in the dark and over time the infection will be sure to worsen.

Conventional treatment of an ear infection in dogs involves flushing and cleaning out the ear and the use of topical and oral antibiotics or antifungal medications to kill off the bacteria or yeast, along with anti-inflammatories such as corticosteroids to stop the inflammation and irritations such as itching. If your dog suffers from recurring ear infections, it is possible that the underlying cause of the infections is **Candida** - a single-celled organism that causes yeast infections in dogs. To get rid of the recurring ear infections, therefore, the root cause “Candida” has to be eliminated.

Glaucoma: is a serious eye problem which is the result of increased fluid pressure within the eye (elevated intraocular pressure or IOP). If the pressure cannot be reduced in time, there will be permanent damage to the retina and optic nerve resulting in visual impairment.

There are two types of glaucoma:

1. Primary glaucoma refers to the condition that occurs as a result of genetics. It occurs in quite a few breeds. In particular, Labrador Retrievers, Basset Hounds, American Cocker Spaniels, **Beagles**, and Shar Peis have a higher incidence of dog glaucoma due to improper development of the drainage angles. As well, many of the terrier breeds are predisposed to lens luxation. These breeds are also prone to glaucoma because lens luxation can lead to glaucoma.
2. Secondary glaucoma refers to the condition that is secondary to other eye diseases such as inflammation within the eye, displacement of the lens due to trauma, advanced cataracts, or eye injuries such as a penetrating wound to the eye.

Glaucoma may be primary (inherited) or secondary to a number of eye disorders such as inflammation within the eye, displacement of the lens, advanced cataracts, or eye injuries such as a penetrating wound to the eye.

Primary glaucoma causes an elevation of pressure within the eye because of abnormal drainage of fluid through the iridocorneal angle. When the angle at which the iris and cornea join is wide, the glaucoma is described as open angle. If the base of the iris is pushed forward, the glaucoma is described as narrow angle. Beagles are more prone to open angle glaucoma.

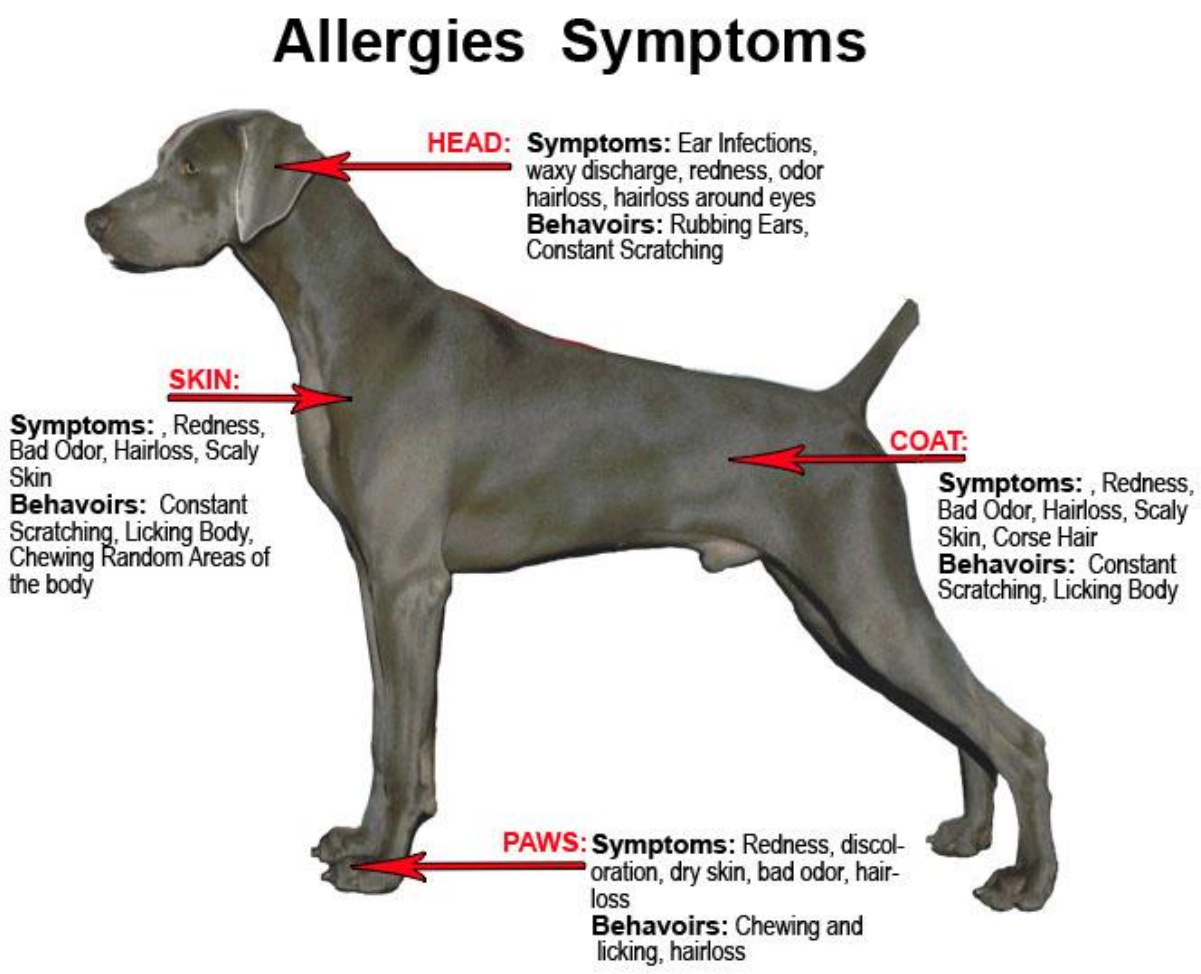
The early signs are listed as follows. *Even if your dog shows just one or two of these signs, take action and don't delay!*

1. painful eye (squinting, pawing, rubbing, tearing)
2. dilated and unresponsive pupil
3. cloudiness “blue haze” and/or swelling within the cornea
4. red, bloodshot eye
5. one eye seems larger or protrudes more than the other

Glaucoma causes a lot of pain in the form of a constant headache or migraine. As a result, a dog with glaucoma is usually lethargic, unwilling to move or play. He may also have a poor appetite and may show behavioral change.

Glaucoma is an emergency and treatment must be started as soon as possible if your dog's eyesight is to be saved.

Allergies: The symptoms of allergies in beagles depend on the type of allergy being experienced with many of the symptoms manifesting themselves in both types. Your dog may experience either an internal or an external allergy with signs and symptoms that include the following:



1. Loss of fur either in small patches or in large areas of the scalp.
2. Dull, dry coat
3. Dry, itchy scalp particularly on the belly, often compulsive licking, biting and scratching can be observed
4. Ear inflammations and excessive eye discharge
5. Upset stomach as manifested by diarrhea, vomiting and lethargy as well as less appetite
6. Shortness of breath
7. Wheezing noise
8. Coughing

We must emphasize that the abovementioned symptoms of beagle allergies may also be signs of other illnesses. As such, it is best to get your beagle to a veterinarian to secure a definitive diagnosis and, thus, start appropriate treatment.

Identification of Possible Causes

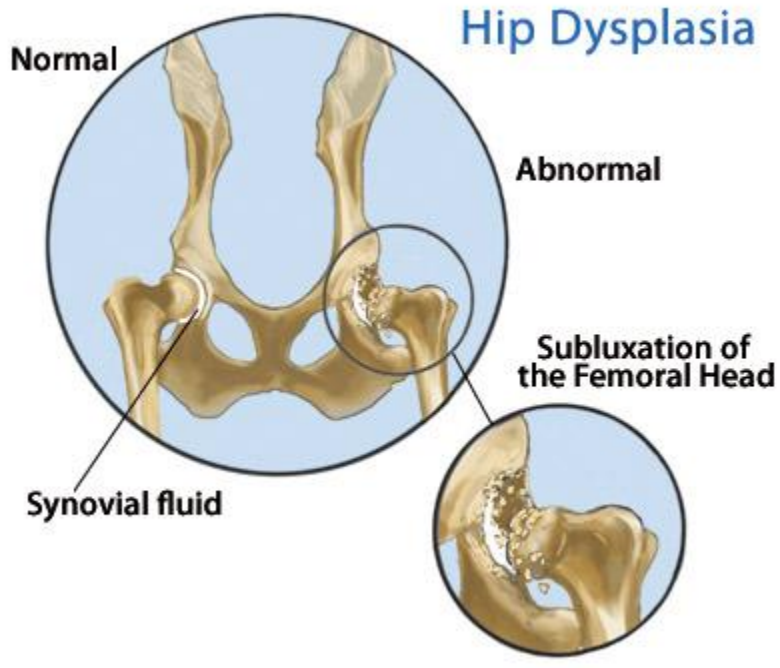
Generally speaking, dog allergies are caused by a specific type of allergen. When the allergen has been identified, the allergy can then be classified as either internal or external. The treatment options can then be discussed depending on the type of allergy.

1. Internal allergies are typically caused by foods and substances that have been ingested by the beagle. The most common of these allergens is dog food although anything from dairy products to wheat and especially chocolate can be the culprit, too.
2. External allergies are usually caused by contact with the allergen. It may be fleas and ticks; dog shampoos and other dog products; home products like laundry detergent, carpet cleaner and air freshener; and environmental elements like dust, mold and secondhand smoke.

When the type of allergy and the allergen has been identified, you and the veterinarian can take the necessary actions to treat it. The following treatments may be undertaken:

1. Change the brand of dog food
2. Remove the food allergen from the diet (Most common allergens are soy, corn, turkey and wheat)
3. Lessen, if not eliminate, the environmental allergens like cigarette smoke, mould and dust from making contact with the beagle
4. Prescribe medications like corticosteroids and antihistamines
5. Undergo immunotherapy or allergy shots
6. Increase the amounts for omega-3 and omega-6 fatty acids

Hip Dysplasia: Hip dysplasia is a common disease in dogs also known as Canine hip dysplasia (CHD). Canine hip dysplasia (CHD) is characterized by a loose and unstable hip joint.



To better understand Canine hip dysplasia (CHD), let's look first at a dog's hip joint. It attaches to the hind leg by means of a "ball and socket" joint. The ball portion is the head of the femur, the long bone between hip and knee. The socket, called the "acetabulum," is located at the end of the pelvic bone. In a healthy dog without Canine hip dysplasia (CHD), the ball rotates freely within the socket. To facilitate movement, the bones of the ball are shaped to perfectly match those of the inside of the socket.

To strengthen the joint, the two bones are held together by a ligament that runs directly from the ball into the socket, where it attaches to the inside. Attaching to both bones and completely encircling the joint is the joint capsule, a thick band of connective tissue that holds the bones together. The area where the bones actually touch each other is called the articular surface. It is perfectly smooth and cushioned with a layer of spongy cartilage. In the normal dog, all these parts work together for smooth and stable joint function.

Canine hip dysplasia (CHD) affects the development of the hip joint in a young dog. It results when the muscles and connective tissue (including the ligaments) are lax and weak, losing their ability to properly support the ball and socket joint. Dogs with Canine hip dysplasia (CHD) are born with normal hips but develop the condition as they mature, usually due to a genetic predisposition towards the disease. Canine hip dysplasia (CHD) may affect one side of the hip only, or both (bilateral CHD).

Due to the weak supporting structures, the two bones of the ball and socket joint are not held in place and actually move apart. The joint capsule and the ligament between the two bones stretch, causing the joint to become unstable. As a result, the surfaces of the two bones lose contact with each other. The slight separation of the two bones of the joint is called "subluxation," which leads to all of the problems associated with Canine hip dysplasia (CHD).

When the two bones within the joint lose their normal position in relationship to one other, their articular surfaces no longer contact each other in the correct way. The surrounding muscles of the dog's joint attempt to force the bones back together but the result is never completely successful. Due to the weight of the dog with Canine hip dysplasia (CHD), the femoral head (ball) often "rides up" against the rim of the hip socket, causing both bone surfaces to be worn away so that they no longer have a perfect fit. With every movement of the dog's leg, these two abnormal areas of bone now grind against each other instead of contacting on a smooth articular surface.

The following are signs that your dog may have Canine hip dysplasia (CHD). Always check with a veterinarian if your pet displays any of these behaviors.

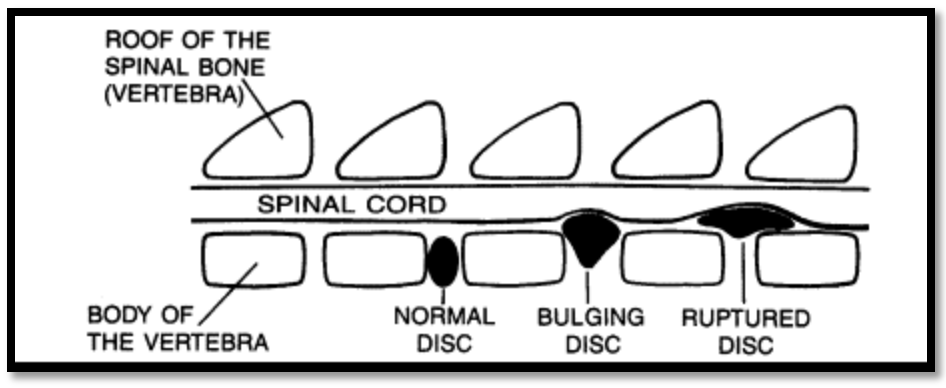
1. Rear limb lameness, particularly after exercise.
2. Difficulty or stiffness upon rising or climbing uphill.
3. A "bunny hop" gait (moving both rear legs together).
4. Rising using front legs only and dragging rear end.
5. Waddling rear limb gait.
6. A painful reaction to extension of the rear legs resulting in a characteristic short stride.
7. A side-to-side sway of the croup (area of the back above the hind legs and in front of tail.)
8. Tendency to tilt hips down when pressure applied to rump.
9. Reluctance to jump, exercise or climb stairs.

So again, at the first signs of hip dysplasia get the dog checked out and do not breed the dog until you find out if it is genetic. No matter how great a dog is in the field, there is no excuse to "spread" this fault any further.

Inter-Vertebral Disc Disease: The vertebral column, or backbone, consists of 34 individual bones called vertebrae. The vertebral column also includes the spinal cord and nerves, tendons, muscles, ligaments, intervertebral disks, and blood supply. The vertebral column protects the spinal cord and many internal organs, serves as a base of attachment for tendons and ligaments, provides structural support, connects the upper and lower body, and enables a wide range of body movement. The bones in the vertebral column also store minerals and produce red blood cells. The disks separate the vertebrae from each other. These "cushions" absorb the stress and shock that the body incurs during movement.

The intervertebral disk consists of two regions: the outer layer called annulus fibrosis of cartilage-like material and the central region called nucleus pulpous. The central region is a gel-like structure in the young animal which becomes progressively dehydrated and less gel-like with age. The exact cause of the degenerative process is not yet fully understood, but is commonly attributed to influence of genetic, hormonal, autoimmune (immune system disorder), and mechanical factors.

Disc degeneration takes one of the two forms depending on whether the dog is of a chondrodystrophoid or non-chondrodystrophoid breed. In chondrodystrophoid breeds the nucleus pulpous is gradually replaced by cartilage. By 1 year of age, 90-100% of chondrodystrophoid dogs have changes in the nucleus pulpous. In non-chondrodystrophoid breeds the nucleus pulpous is gradually replace with collagenous tissue. This starts later and progresses more slowly. Degenerative changes that occur in nucleus pulpous lead to reduction in the disk's shock absorption mechanism. Stress on the disk is not dissipated, and the failure of elasticity ultimately leads to disruption of the annulus fibrosis.



Type I Intervertebral Disc Disease

Total rupture of the annulus fibrosis will allow varying amounts of nucleus pulpous into the vertebral canal. This will cause direct pressure on the spinal cord or nerve root. This is called Hansen type I protrusion, or intervertebral disk extrusion, and is more common in chondrodystrophoid breeds. Compression of the spinal cord may be minimal, causing mild back or neck pain, to severe, causing paralysis, loss of sensation, and lack of bladder and bowel control.

Type II Intervertebral Disc Disease

Partial rupture of the annulus fibrosis will cause the disk to bulge causing a Hansen type II protrusion or intervertebral disk protrusion. These are most common in non-chondrodystrophoid breeds. After extrusion of the disk material into the vertebral canal, continued leakage of the nucleus pulpous causes inflammation and clinical signs.

If your dog has already developed protrusion, he might suddenly cry out in pain when you pet it about the head, or when exercising. You will notice some decrease in activity, since any sudden movement causes excruciating pain. Pain is the hallmark of cervical IVD protrusion and may be constant or occasional. In worst cases, there may be loss of conscious pain sensation. There may be forelimb lameness or neurological manifestations, ranging from mild weakness of all four limbs to four limb paralysis.

Medical decompression with corticosteroids combined with cage confinement may improve the rate of recovery. Dogs that do not respond to therapy initially may require surgery. In animals without deep pain sensation, lack of improvement after 2 weeks of indicates a guarded prognosis and lack of improvement after 1 month indicates a grave prognosis for recovery. The situation seems easier if the dog is small. So again, at the first signs of disc disease get the dog checked out and do not breed the dog until you find out if it is genetic. No matter how great a dog is in the field, there is no excuse to “spread” this fault any further.

The Notorious Nasty Nine

- **Seizures**
- **Thyroid**
- **Cherry Eye**
- **Heart Disease**
- **Ear Infections**
- **Glaucoma**
- **Allergies**
- **Hip Dysplasia**
- **Disc Disease**

Just keep in mind, all of these conditions are manageable if caught soon enough and many are preventable through careful breeding, simply because some are genetic.

Jim Lane - Laneline Beagles - www.lanelinebeagles.zoomshare.com