

Your **Border Collie**

Caring for Your Faithful Companion



PET MEDICAL CENTER

501 E. FM 2410 • Harker Heights, Texas 76548
(254) 690-6769
www.pet-medcenter.com

Your Border Collie

Border Collies: What a Unique Breed!

Your dog is special! She's your best friend, companion, and a source of unconditional love. Chances are that you chose her because you like Collies and you expected her to have certain traits that would fit your lifestyle:

- Highly active and eager to serve a purpose
- Above-average intelligence and trainability when positive reinforcement training methods are used
- Vigilant watchdog with a ready bark
- Alert, curious, and busy
- Athletic and agile
- Well suited as a companion or working dog

However, no dog is perfect! You may have also noticed these characteristics:

- Needs a lot of activity and mental stimulation to avoid boredom vices
- Strong herding instinct can lead to chasing cars and small animals
- Prone to separation anxiety
- Needs frequent attention from her family
- Can be snappy with children
- Sheds quite a bit and needs to be brushed regularly

Is it all worth it? Of course! She's full of personality, and you love her for it! Widely considered as the most intelligent dog breed, she can also be a handful. Without proper exercise and mental stimulation she may develop problem behaviors.

Border Collies were bred as herding dogs in the countryside between Scotland and England. They are known for their intelligence and the intense stare they use on flocks of sheep. They are extremely active dogs that do best when they have a job. Their natural herding abilities can lead to herding anything that moves, including children and small animals. Border Collies are generally a healthy breed with an average life span of 12-15 years.



© 2013 VetThink, Inc. www.Genesis4Pets.com





Your Border Collie's Health

We know that because you care so much about your dog, you want to take good care of her. That is why we have summarized the health concerns we will be discussing with you over the life of your Border Collie. By knowing about health concerns specific to Border Collies, we can tailor a preventive health plan to watch for and hopefully prevent some predictable risks.

Many diseases and health conditions are genetic, meaning they are related to your pet's breed. There is a general consensus among canine genetic researchers and veterinary practitioners that the conditions we've described herein have a significant rate of incidence and/or impact in this breed. That does not mean your dog will have these problems; it just means that she is more at risk than other dogs. We will describe the most common issues seen in Border Collies to give you an idea of what may come up in her future. Of course, we can't cover every possibility here, so always check with us if you notice any unusual signs or symptoms.

This guide contains general health information important to all canines as well as the most important genetic predispositions for Border Collies. This information helps you and us together plan for your pet's unique medical needs. At the end of the booklet, we have also included a description of what you can do at home to keep your Sheepdog looking and feeling her best. You will know what to watch for, and we will all feel better knowing that we're taking the best possible care of your pal.

General Health Information for your Border Collie

Dental Disease

Dental disease is the most common chronic problem in pets, affecting 80% of all dogs by age two. Unfortunately, your Border Collie is more likely than other dogs to have problems

with her teeth. Dental disease starts with tartar build-up on the teeth and progresses to infection of the gums and roots of the teeth. If we don't prevent or treat dental disease, your buddy may lose her teeth and be in danger of damaging her kidneys, liver, heart, and joints. In fact, your Border Collie's life span may even be cut short by one to three years! We'll clean your dog's teeth regularly and let you know what you can do at home to keep those pearly whites clean.

Infections

Border Collies are susceptible to bacterial and viral infections—the same ones that all dogs can get—such as parvo, rabies, and distemper. Many of these infections are preventable through vaccination, which we will recommend based on her age, the diseases we see in our area, and other factors.

Obesity

Obesity can be a significant health problem in Border Collies. It is a serious disease that may cause or worsen joint problems, metabolic and digestive disorders, back pain, and heart disease. Though it's tempting to give your pal food when she looks at you with those soulful eyes, you can "love her to death" with leftover people food and doggie treats. Instead, give her a hug, brush her fur or teeth, play a game with her, or perhaps take her for a walk. She'll feel better, and so will you!

Parasites

All kinds of worms and bugs can invade your Sheepdog's body, inside and out. Everything from fleas and ticks to ear mites can infest her skin and ears. Hookworms, roundworms, heartworms, and whipworms can get into her system in a number of ways: drinking unclean water, walking on contaminated soil, or being bitten by an infected mosquito. Some of these parasites can be transmitted to you or a family member and are a serious concern for everyone. For your canine friend, these parasites can cause pain, discomfort, and even death, so it's important that we test for them on a regular basis. We'll also recommend preventive medication as necessary to keep her healthy.

Spay or Neuter

One of the best things you can do for your Border Collie is to have her spayed (neutered for males). In females, this means we surgically remove the ovaries and usually the uterus, and in males, it means we surgically remove the testicles. Spaying or neutering decreases the likelihood of certain types of cancers and eliminates the possibility of your pet becoming pregnant or fathering unwanted puppies. Performing this surgery also gives us a chance, while your pet is under anesthesia, to identify and address some of the diseases your dog is likely to develop. For example, if your pet needs hip X-rays or a puppy tooth extracted, this would be a good time—it's more convenient for you and easier on your friend too. Routine blood testing prior to surgery also helps us to identify and take precautions against common problems that increase anesthetic or surgical risk. Don't worry; we'll discuss the specific problems we will be looking for when the time arrives.

Separation Anxiety

Some dogs become bored or anxious quickly when away from their human companions, especially if they are not getting enough exercise or mental stimulation. A scheduled routine, lots to do, and a stable home environment can help prevent common behavior problems associated with separation anxiety. Also, make sure your Border Collie gets alone time as well as play time as a puppy so he becomes used to being by himself for short periods.

Noise Phobia

Fear of storms, fireworks, and loud noises is common in dogs of all breeds. Dogs are at risk of hurting themselves when terrified, especially if they frantically try to escape or chew through doors, kennels, or walls. Working with us to find an appropriate plan for your Border Collie is a process we will approach together. We want to address his problem when signs first appear as fear behavior tends to get worse with time.

Cancer

Cancer is a leading cause of death in older dogs. Your Collie will likely live longer than many other breeds and therefore is more prone to get cancer in his golden years. Many cancers are curable by surgical removal, and some types are treatable with chemotherapy. Early detection is critical! We'll perform periodic diagnostic tests and look for lumps and bumps when we examine your pet.

Multidrug Resistance

Multidrug resistance is a genetic defect in a gene called MDR1. If your Border Collie has this mutation, it can affect the way his body processes different drugs, including substances commonly used to treat parasites, diarrhea, and even cancer. For years, veterinarians simply avoided using ivermectin in herding breeds, but now there is a DNA test that can specifically identify dogs who are at risk for side effects from certain medications. Testing your pet early in life can prevent drug-related toxicity.

Overheating Disorder: Malignant Hyperthermia

Some Border Collies seem to have a defective "internal thermostat" and can develop dangerously high body temperatures leading to heat stroke, muscle rigidity, and organ damage. This condition is called malignant hyperthermia—malignant, meaning deadly or dangerous, and hyperthermia, referring to overheating. This is especially common during and after anesthesia, thus we will monitor your pet's temperature closely to prevent complications following surgical or dental procedures. DNA testing for a predisposition to hyperthermia is available, and carriers should be screened and identified before breeding.

Heart Disease

Border Collies are susceptible to a condition called patent ductus arteriosus, or PDA, in which a small vessel that carries blood between two parts of the heart does not close as it should shortly after birth. This results in too much blood being carried to the lungs, causing fluid build-up and strain on the heart.

Outward signs may be mild or severe, including coughing, fatigue during exercise, weight loss, shortness of breath, and weakness in the hind limbs. We listen for a specific type of heart murmur to diagnose this problem during your pet's examinations. If your pal has this condition, we may recommend surgery to close the problematic vessel.

Liver Problems

Your Border Collie is more likely than other dogs to have a liver disorder called portosystemic shunt (PSS). Some of the blood supply that should go to the liver goes around it instead, depriving the liver of the blood flow it needs to grow and function properly. If your friend has PSS, his liver cannot remove toxins from his bloodstream effectively. To check for this problem, we'll conduct a liver function test in addition to a standard pre-anesthetic panel every time he undergoes anesthesia. If he develops symptoms such as stunted growth or seizures, we'll test his blood and possibly conduct an ultrasound scan of his liver. Surgery may be needed, but in some cases, we can treat with a special diet and medication.

Nutrient Malabsorption

Cobalamin (Vitamin B12) is an essential nutrient necessary for life. A genetic defect, more likely in Border Collies than other dogs, disrupts the absorption of this nutrient in the intestines causing poor appetite, stunted growth, protein loss, and low red and white blood cell counts. Don't worry; we can test for this defect with blood work. If your buddy is affected, cobalamin injections will be needed for the rest of his life. Luckily, this disease is rare.

Blood Disorder

A relatively rare blood disorder called Pelger-Huet anomaly can occur in your Border Collie. If he is a carrier of the disease, his infection-fighting white blood cells will look abnormal under the microscope, but will operate normally. Puppies that inherit a copy of this abnormal gene from both parents, however, usually die before or shortly after birth. For this reason, it is important to diagnose breeding dogs who are carriers of this defect so they don't pass it along to their offspring.

Nerve Disease

Neuronal ceroid lipofuscinosis, or NCL, is a progressive neurologic disease found in several breeds, including Border Collies. Clinical signs usually appear in younger dogs around one to three years of age. In the early stages, rear leg weakness and imbalance can occur. Symptoms may progress to weakness involving all four legs, and some dogs also lose vision. There is currently no effective treatment for this disease, but a genetic test is available. Dogs carrying the mutation should not be used for breeding since it is readily passed to future generations.

Eye Problems

Not many things have as dramatic an impact on your dog's quality of life as the proper functioning of his eyes. Unfortunately, Border Collies can inherit or develop a number of different eye conditions, some of which may cause blindness if not treated right away, and most of which can be extremely painful! We will evaluate his eyes at every examination to look

for any signs for concern.

- Cataracts are a common cause of blindness in older Border Collies. We'll watch for the lenses of his eyes to become more opaque—meaning they look cloudy instead of clear—when we examine him. Many dogs adjust well to losing their vision and get along just fine. Surgery to remove cataracts and restore sight may also be an option.
- Pannus is like a suntan on your dog's eyeball. In affected breeds, inflammatory cells infiltrate the cornea (the clear part of the eye), which then darkens with exposure to ultraviolet light, and may lead to complete blindness. It's considered to have a genetic component since the condition is predominant in certain breeds, like your Border Collie. We'll watch his eyes closely for early signs and start preventive eye medications if needed. Doggie sunglasses are also an option to help reduce sun exposure.
- Collie eye anomaly is a genetically linked disease that causes abnormal development of the eyes in Border Collies. In severe cases, the disease can lead to blindness. Unfortunately, there is no treatment. It is important to give your pet a thorough eye examination prior to breeding.
- Progressive retinal atrophy (PRA) is an inherited disease in which the eyes are genetically programmed to go blind. Unfortunately, Border Collies are a bit more likely than other dogs to have this condition. PRA is not painful, but also not curable. In dogs with this gene, early symptoms such as night blindness or dilated pupils generally begin around three to five years of age. A genetic test is available for this condition.





Taking Care of Your Border Collie at Home

Much of what you can do to keep your dog happy and healthy is common sense, just like it is for people. Watch her diet, make sure she gets plenty of exercise, regularly brush her teeth and coat, and call us or a pet emergency hospital when something seems unusual (see “What to Watch For” below). Be sure to adhere to the schedule of examinations and vaccinations that we recommend for her. This is when we’ll give her the necessary “check-ups” and test for diseases and conditions that are common in Border Collies. Another very important step in caring for your pet is signing up for pet health insurance. There will certainly be medical tests and procedures she will need throughout her life and pet health insurance will help you cover those costs.

Routine Care, Diet, and Exercise

Build her routine care into your schedule to help your Sheepdog live longer, stay healthier, and be happier during her lifetime. We cannot overemphasize the importance of a proper diet and exercise routine.

- ✓ Supervise your pet as you would a toddler. Keep doors closed, pick up after yourself, and block off rooms as necessary. This will keep her out of trouble and away from objects she shouldn’t put in her mouth.
- ✓ Brush her coat at least weekly.
- ✓ Border Collies generally have good teeth, and you can keep them perfect by brushing them at least twice a week!
- ✓ Clean her ears weekly, even as a puppy. Don’t worry—we’ll show you how!
- ✓ She’s a very smart dog with lots of energy, so keep her mind and body active, or she’ll get bored. That’s when the naughty stuff starts.
- ✓ She’s an athletic and acrobatic dog that excels at agility competitions, flyball, and herding events.

- ✓ Border Collies can be sound sensitive, so be prepared for thunderstorms, New Year’s Eve, and the Fourth of July!
- ✓ Keep your dog’s diet consistent and don’t give her people food.
- ✓ Feed a high-quality diet appropriate for her age.
- ✓ Exercise your dog regularly, but don’t overdo it at first.

What to Watch For

Any abnormal symptom could be a sign of serious disease or it could just be a minor or temporary problem. The important thing is to be able to tell when to seek veterinary help and how urgently. Many diseases cause dogs to have a characteristic combination of symptoms, which together can be a clear signal that your Border Collie needs help.

Office calls

Give us a call for an appointment if you notice any of these types of signs:

- ✓ Change in appetite or water consumption
- ✓ Tartar build-up, bad breath, red gums, or broken teeth
- ✓ Itchy skin (scratching, chewing, or licking); hair loss
- ✓ Lethargy, mental dullness, or excessive sleeping
- ✓ Fearfulness, aggression, or other behavioral changes
- ✓ Dull coat, hair loss; sluggish, weight gain
- ✓ Slow or stunted growth; sometimes seizures after eating
- ✓ Anxiety, destructive behaviors, vocalization, hiding, panting, or drooling

Emergencies

Seek medical care immediately if you notice any of these types of signs:

- ✓ Scratching or shaking the head, tender ears, or ear discharge
- ✓ Inability or straining to urinate; discolored urine
- ✓ Cloudiness, redness, itching, or any other abnormality involving the eyes
- ✓ Leg stiffness; reluctance to rise, sit, use stairs, run, jump; “bunny hopping”
- ✓ Any abnormal shaking, trembling, or excessive involuntary tremors
- ✓ Lethargy, drooling, or abnormal behavior following drug administration
- ✓ Fatigue during exercise, coughing, or shortness of breath

Genetic/DNA Testing

DNA analysis is a rapidly advancing field in healthcare for people and pets. Luckily, technologies exist to screen for hundreds of inherited diseases in pets, just like in people. By screening each pet for as many genetic diseases as possible, we will be better prepared to care for your pet throughout life. This is an important step in caring for your pet because it's always better to know your pal is at risk for a genetic disease before the problem is untreatable.

In an effort to screen for as many genetically linked diseases as possible, we may recommend the **K9Genetics™ Disease Screen** to screen for more than 150 genetic mutations that cause disease.

Each **K9Genetics™ Disease Screen** Screens for

- ✓ Over 30 Musculoskeletal Problems
- ✓ Over 30 Metabolic Conditions
- ✓ Over 30 Eye Conditions
- ✓ Over 25 Blood and Clotting Disorders
- ✓ Over 10 Immune System Diseases
- ✓ Over 10 Urinary Tract Problems
- ✓ 10 Skin and Hair Conditions
- ✓ Cancer
- ✓ Dental Disease
- ✓ Drug Metabolism
- ✓ Heart Problems
- ✓ Hormonal Conditions
- ✓ Liver/Gastrointestinal Diseases
- ✓ Midline Defect
- ✓ Neuromuscular Diseases
- ✓ Reproduction Problems
- ✓ Respiratory Conditions

This one-time test is one of the best decisions you can make for your Border Collie's medical care. With less than a few drops of blood, we'll have a lifetime of information to assist us in providing the very best care of your friend's unique and individual needs throughout her life!

For more information about genetic testing, visit <http://www.k9genetics.com>

Your Border Collie counts on you to take good care of her, and we look forward to working with you to ensure that she lives a long and healthy life. Our goal is to provide the best health care possible: health care that's based on her breed, lifestyle, and age. Please contact us when you have questions or concerns:

Pet Medical Center
254-690-6769

References:

- Ackerman L. *The Genetic Connection: A Guide to Health Problems in Purebred Dogs*. Second edition. AAHA Press; 2011.
- Bell JS, Cavanagh KE, Tilley LP, Smith FW. *Veterinary medical guide to dog and cat breeds*. Jackson, Wyoming. Teton New Media; 2012.
- Gough A, Thomas A. *Breed Predispositions to Disease in Dogs and Cats*. 2nd Edition. Wiley-Blackwell; 2010.
- Crook A, Dawson S, Cote E, MacDonald S, Berry J. *Canine Inherited Disorders Database* [Internet]. University of Prince Edward Island. 2011. [cited 2013 Apr 11]. Available from: <http://ic.upei.ca/cidd/breed/border-collie>
- Breed Specific Health Concerns [Internet]. American Kennel Club Canine Health Foundation, Inc. [cited 2013 Apr 11]. Available from: <http://www.akcchf.org/canine-health/breed-specific-concerns/?breed=border-collie>
- Stein E, Howard M, et al. *American Border Collie Association Website* [Internet]. Perkinston (MS). American Border Collie Association, Inc. 2012. [cited 2013 Apr 11]. Available from: <http://www.americanbordercollie.org/Health%20and%20Genetics%20of%20Border%20Collies.htm>

Puppy to Adolescent Health Care Recommendations

How We'll Keep Your Border Collie Healthy	Puppy to Adolescent: Infant to 17 in People Years		(✓)	Age	Services We'll Provide	Border Collie-Specific Problems We're Looking For
	○	6–9 weeks	Head-to-tail physical examination Eye disease screen Heart health check Internal organ health evaluation Parasite detection/prevention Vaccinations Discuss socialization and at-home puppy care	Breed-specific physical abnormalities plus Dental alignment, heart murmur, hernia Collie eye anomaly Patent ductus arteriosus (PDA) and Portosystemic shunt (PSS) Cobalamin malabsorption and Malignant hyperthermia		
	○	10–13 weeks	Head-to-tail physical examination Eye disease screen Heart health check Internal organ health evaluation Parasite detection/prevention Vaccinations Discuss caring for your dog's teeth and ears at home	Breed-specific physical abnormalities plus Collie eye anomaly Patent ductus arteriosus (PDA) and Portosystemic shunt (PSS) Cobalamin malabsorption and Malignant hyperthermia		
	○	14–16 weeks	Head-to-tail physical examination Eye disease screen Heart health check Internal organ health evaluation Parasite prevention Vaccinations Schedule spay/neuter surgery Discuss obedience and grooming	Breed-specific physical abnormalities plus Collie eye anomaly Patent ductus arteriosus (PDA) and Portosystemic shunt (PSS) Cobalamin malabsorption and Malignant hyperthermia		
	○	4–6 months	Head-to-tail physical examination Eye disease screen Heart health check Internal organ health evaluation Bone and joint exam Pre-surgical diagnostics Spay/neuter surgery Discuss MDRI, Pelger-Huet anomaly, and microchipping	Breed-specific physical abnormalities plus Collie eye anomaly Patent ductus arteriosus (PDA) and Portosystemic shunt (PSS) Cobalamin malabsorption and Malignant hyperthermia Hip dysplasia and Osteochondritis dissecans (OCD)		
	○	6 months to 1 year	Head-to-tail physical examination Eye disease screen Heart health check Internal organ health evaluation Bone and joint exam Neurological assessment Parasite prevention Vaccinations Discuss separation anxiety, noise phobia, and lifetime genetic considerations	Breed-specific physical abnormalities plus Collie eye anomaly and Progressive retinal atrophy (PRA) Patent ductus arteriosus (PDA) and Portosystemic shunt (PSS) Cobalamin malabsorption and Malignant hyperthermia Hip dysplasia and Osteochondritis dissecans (OCD) Epilepsy and Neuronal ceroid lipofuscinosis (NCL) All major diseases important in the breed with diagnostic plan		

Adult to Golden Years Health Care Recommendations

How We'll Keep Your Border Collie Healthy	(✓)	Age	Services We'll Provide	Border Collie-Specific Problems We're Looking For
	○	2 years through 6 years	Head-to-tail physical examination Eye disease screen Endocrine screening Bone and joint exam Neurological assessment Parasite prevention Vaccinations Discuss behavior and nutrition	Breed-specific physical abnormalities plus Malignant hyperthermia Progressive retinal atrophy (PRA), Cataracts, and Pannus Hypothyroidism Hip dysplasia Epilepsy and Neuronal ceroid lipofuscinosis (NCL)
	○	7 years through 9 years	Head-to-tail physical examination Eye disease screen Endocrine screening Bone and joint exam Neurological assessment Cancer screen Parasite prevention Vaccinations Discuss mental and physical well-being	Breed-specific physical abnormalities plus Malignant hyperthermia Progressive retinal atrophy (PRA), Cataracts, and Pannus Hypothyroidism Hip dysplasia Epilepsy Testicular neoplasia and Lymphoma
	○	10 years and older	Head-to-tail physical examination Eye disease screen Endocrine screening Bone and joint exam Neurological assessment Cancer screen Parasite prevention Vaccinations Discuss mental and physical well-being	Breed-specific physical abnormalities plus Malignant hyperthermia Progressive retinal atrophy (PRA), Cataracts, and Pannus Hypothyroidism Hip dysplasia Epilepsy Testicular neoplasia and Lymphoma

Note: We recommend twice-a-year examinations so that we may diagnose problems sooner. This approach also gives you the budget-friendly option of spreading preventive testing over two visits rather than one.