Your **Australian Shepherd**

Caring for Your Faithful Companion





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Australian Shepherds: 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 Aussies and you expected her to have certain traits that would fit your lifestyle:

- Highly intelligent, playful, and energetic
- Agile, sturdy, and muscular
- An excellent companion, family, or working dog
- Above-average intelligence and trainability when positive reinforcement training methods are used
- Adaptable to a wide variety of living conditions

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

- Barks when suspicious strangers or dogs come around
- Has a tendency to herd, including small children
- Coat requires regular brushing and grooming
- Suspicious of strangers

Is it all worth it? Of course! She's full of personality, and you love her for it! Give her a problem and she will solve it. She's smart and an energetic hard worker.

The Australian Shepherd was developed in California during the 1900s. Aussies excel at watching large herds and can work for as long as you ask. They are highly intelligent and trainable and are well-suited as guide dogs, exercise companions, or as the family pet. They also excel at agility and obedience sports. They are loyal, good with children, and have sound temperaments. Aussies are best suited for families with an active lifestyle and a large fenced yard. They need plenty of exercise and mental stimulation to prevent boredom. They can weigh between 35 and 70 pounds and have an average life span of 12-13 years.







Your Australian Shepherd'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 Aussie. By knowing about health concerns specific to Australian Shepherds, 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 Australian Shepherds 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 Australian Shepherds. 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 Aussie 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 Australian Shepherd

Dental Disease

Dental disease is one of the most common chronic problems in pets who don't brush their teeth regularly. Unfortunately, most dogs don't take very good care of their own teeth, and this

probably includes your Aussie. Somebody is going to have to help her, or she is likely to have serious dental problems. Dental disease starts with food residue, then tartar build-up on the visible parts of the teeth and progresses to infection of the gums and roots. If you don't prevent dental disease at the start by removing food residue regularly, then we will need to treat her for more advanced stages of disease, which is more costly for you and more stressful for your buddy. In severe cases, she could lose her teeth and be in danger of damaging her internal organs due to chronic dental infection. If nothing else, she will be a more pleasant companion if she isn't knocking everyone down with her stinky dog breath! We'll schedule routine dental exams and show you how to keep those pearly whites clean at home.

Infections

Australian Shepherds 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 Australian Shepherds. 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 Aussie'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 Aussie 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.

Genetic Predispositions for Australian Shepherds

Multidrug Resistance

Multidrug resistance is a genetic defect in a gene called MDR1. If your Australian Shepherd 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.

Bone and Joint Problems

A number of different musculoskeletal problems have been reported in Australian Shepherds. While it may seem overwhelming, each condition can be diagnosed and treated to prevent undue pain and suffering. With diligent observation at home and knowledge about the diseases that may affect your friend's bones, joints, or muscles you will be able to take great care of him throughout his life.

- Both hips and elbows are at risk for dysplasia, an inherited disease that causes the joints to develop improperly and results in arthritis. Stiffness in your Aussie's elbows or hips may become a problem for him, especially as he matures. You may notice that he begins to show lameness in his legs or has difficulty getting up from lying down. We can treat the arthritis—the sooner the better—to minimize discomfort and pain. We'll take X-rays of your dog's bones to identify issues as early as possible. Surgery is also sometimes a good option in severe and life-limiting cases. And keep in mind that overweight dogs may develop arthritis years earlier than those of normal weight, causing undue pain and suffering!
- Young Australian Shepherds may be prone to a painful degenerative hip condition called Legg-Calve-Perthes disease. The exact cause of this condition is still not completely understood, but it is thought to be caused by a reduced blood supply to the hip, which causes the femoral head (the top of the thigh bone) to become brittle and fracture easily. Usually occurring between six and nine months of age, LCP causes pain and lameness in one or both rear legs, and often requires surgery.

Lymphoma

Lymphoma or lymphosarcoma is a type of cancer that afflicts Australian Shepherds more than other breeds. This disease makes the body form abnormal lymphocytes, which are a type of white blood cell. Because white blood cells can be found throughout the body, this cancer can show up almost anywhere. Lymphoma is a very treatable form of cancer, with an excellent

success rate in dogs receiving chemotherapy. Luckily, lymphoma is one of the few types of cancer that can often be found with a blood test, so we may recommend a complete blood count twice yearly. Watch for swollen glands (ask us, we'll show you where to look), weight loss, or labored breathing at home and be sure to call us if you notice any unusual symptoms.

Bleeding Tumor

Hemangiosarcoma is a type of bleeding tumor that affects Australian Shepherds at greater than average incidence. These tumors commonly form in the spleen, but can form in other organs as well. Unbeknownst to a pet owner, the tumor breaks open and internal bleeding occurs. Some tumors can be volleyball-sized or larger before signs of sickness show. We often find clues that one of these tumors is present during senior wellness testing, so have his blood tested and an ultrasound performed at least yearly.

Epilepsy

There are three types of seizures in dogs: reactive, secondary, and primary. Reactive seizures are caused by the brain's reaction to a metabolic problem like low blood sugar, organ failure, or a toxin. Secondary seizures are the result of a brain tumor, stroke, or trauma. If no other cause can be found, the disease is called primary or idiopathic epilepsy. This problem is often an inherited condition, and Australian Shepherds are commonly afflicted. If your friend is prone to seizures, episodes will usually begin between six months and three years of age. An initial diagnostic workup may help find the cause. Lifelong medication is usually necessary to help keep seizures under control with periodic blood testing required to monitor side effects and efficacy. If your dog has a seizure, carefully prevent him from injuring himself, but don't try to control his mouth or tongue. It won't help him, and he may bite you accidentally! Note the length of the seizure, and call us or an emergency hospital.

Eve Problems

Not many things have as dramatic an impact on your dog's quality of life as the proper functioning of his eyes.

Unfortunately, Australian Shepherds 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
 Aussies. 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.
- Distichiasis is a condition caused by extra hairs that grow inside of the eyelid and rub on the surface of the eye. This is one of the most commonly inherited diseases in dogs, and your Aussie is more likely than other dogs to develop this painful condition. If untreated, these abnormal hairs can cause corneal ulcers and chronic eye pain. Several treatment options are available, and the prognosis is good once the hairs have been permanently removed.
- 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 Aussie. 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.
- Progressive retinal atrophy (PRA) is an inherited disease in which the eyes are genetically programmed to go blind. Unfortunately, Australian Shepherds 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.

Hemolytic Anemia and Thrombocytopenia Aussies are particularly prone to some relatively rare diseases of the blood that occur when the immune system goes haywire and starts attacking the pet's own red blood cells or platelets. If the immune system destroys red blood cells, your dog quickly becomes anemic, weak, and lethargic. His gums will look whitish or yellow instead of a normal bright pink color. If the immune system destroys platelets, his blood won't clot properly and he'll have bruises or abnormal bleeding. We'll perform diagnostic testing for blood clotting to check for these problems before we perform any surgeries. To slow or stop the immune system's destruction of cells, we'll prescribe steroids and other immune-suppressive drugs. Sometimes an emergency transfusion of red blood cells or platelets is needed.

Bleeding Disorders

There are several types of inherited bleeding disorders that occur in dogs. They range in severity from very mild to very severe. Many times a pet seems normal until a serious injury occurs or surgery is performed, and then severe bleeding can result. Von Willebrand's disease is a blood clotting disorder frequently found in Australian Shepherds. We'll conduct diagnostic testing for blood clotting times or a specific DNA blood test for Von Willebrand's disease and other similar disorders to check for this problem before we perform surgery

Bladder or Kidney Stones

There are a few different types of stones that can form in the kidney or in the bladder, and Australian Shepherds are more likely to develop them than other breeds. We'll periodically test his urine for telltale signs indicating the presence of kidney and bladder stones, which in addition are very painful! If your buddy has blood in his urine, can't urinate, or is straining to urinate, it is a medical emergency. Call us immediately!

Retained Testicle

Some male Aussies have a condition present at birth in which one or both testicles do not descend into the scrotum (a condition called cryptorchidism). Instead, the testicle stays in the abdomen, which can cause problems later in life, including a high risk of cancer. We'll check for this problem when your pet is a puppy; we recommend removal of both testicles if he has this condition.

Liver Problems

Your Aussie 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.

Hyperadrenocorticism (Cushing's)

Cushing's Disease is a malfunction of the adrenal glands that causes them to produce too much steroid hormone. This is a common problem in dogs, and your Aussie is more likely than other dogs to be affected. The condition usually develops slowly, and the early signs are easily missed. Symptoms



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include drinking and urinating more than normal, increased appetite, and reduced activity level followed later by a potbelly, thin skin, and hair loss. Treatment usually includes oral medications and requires close coordination with us to ensure correct dosing.

Diabetes

Diabetes mellitus is a fairly common disease in dogs. Any breed can be affected, but Aussies have an above average incidence. Dogs with diabetes are unable to regulate the metabolism of sugars in their bodies and require daily insulin injections. Diabetes is a serious condition and one that is important to diagnose and treat as early as possible. Symptoms include increased eating, drinking, and urination, along with weight loss. If he shows signs, we will conduct lab tests to determine if he has this condition and discuss treatment options with you. Treatment requires a serious commitment of time and resources. Well-regulated diabetic dogs today have the same life expectancy as other canines.

Thyroid Problems

Aussies are prone to a common condition called hypothyroidism in which the body doesn't make enough thyroid hormone. Signs can include dry skin and coat, hair loss, susceptibility to other skin diseases, weight gain, fearfulness, aggression, and other behavioral changes. We'll conduct a blood test annually to screen for this disease. Treatment is usually as simple as replacement hormones given in the form of a pill.

Taking Care of Your Australian Shepherd 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 Aussies. 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 Aussie 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.
- ✓ Very easy to groom—just run a brush through her coat once in a while. Her weather resistant coat needs its natural

- oils, so don't overbathe her.
- Australian Shepherds 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.
- 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 Australian Shepherd 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

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
- Lethargy, drooling, or abnormal behavior following drug administration
- ✓ Swollen lymph nodes or glands; unexplained weight loss
- Pale gums, labored breathing, weakness, or sudden collapse
- ✓ Any abnormal shaking, trembling, or excessive involuntary tremors
- ✓ Gums that are a color other than bright pink
- ✓ Slow or stunted growth; sometimes seizes after eating
- ✓ Drinks and urinates more, eats more; potbelly, poor haircoat
- ✓ Increased hunger and thirst; weight loss
- ✓ Dull coat, hair loss; sluggish, weight gain



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 **Embark Health Genetic Screen** to screen for more than 150 genetic mutations that cause disease.

Each Embark Health Genetic 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 Aussie'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://embarkvet.com

Your Aussie 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:

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Puppy to Adolescent Health Care Recommendations

rd		(√)	Age	Services We'll Provide	Australian Shepherd-Specific Problems We're Looking For
How We'll Keep Your Australian Shepherd	Puppy to Adolescent: Infant to 17 in People Years	O	6–8 weeks	Head-to-tail physical examination Eye disease screen Heart health check Blood disorder evaluation Parasite detection/prevention Vaccinations Discuss socialization and at-home puppy care	Dental alignment, heart murmur, hernia, cryptorchidism Cataracts and Distichiasis Portosystemic shunt (PSS) von Willebrand's disease (vWD)
		O	10–12 weeks	Head-to-tail physical examination Eye disease screen Heart health check Blood disorder evaluation Parasite detection/prevention Vaccinations Discuss caring for your dog's teeth and ears at home	Breed-specific physical abnormalities plus Cataracts and Distichiasis Portosystemic shunt (PSS) von Willebrand's disease (vWD)
		O	14–16 weeks	Head-to-tail physical examination Eye disease screen Heart health check Blood disorder evaluation Parasite prevention Vaccinations Discuss obedience and grooming	Breed-specific physical abnormalities plus Cataracts and Distichiasis Portosystemic shunt (PSS) von Willebrand's disease (vWD)
		O	4–6 months	Head-to-tail physical examination Eye disease screen Heart health check Bone and joint exam Blood disorder evaluation Pre-surgical diagnostics Discuss microchipping and Multi-Drug Resistant Gene (MDR1)	Breed-specific physical abnormalities plus Cataracts and Distichiasis Portosystemic shunt (PSS) Legg-Calve-Perthes disease and Hip dysplasia von Willebrand's disease (vWD)
		0	6 months through 1 year	Head-to-tail physical examination Eye disease screen Heart health check Bone and joint exam Blood disorder evaluation Parasite prevention Vaccinations Discuss lifetime genetic considerations	Breed-specific physical abnormalities plus Cataracts and Distichiasis Portosystemic shunt (PSS) Legg-Calve-Perthes disease, Hip dysplasia, and Elbow dysplasia von Willebrand's disease (vWD) All major diseases important in the breed with diagnostic plan



Adult to Golden Years Health Care Recommendations

hy		(√)	Age	Services We'll Provide	Australian Shepherd-Specific Problems We're Looking For
Keep Your Australian Shepherd Healthy	Adult-Mature: 18 to 39 in People Years	0	1 years through 8 years	Head-to-tail physical examination Eye disease screen Internal organ health evaluation Endocrine screening Bone and joint exam Neurological assessment Cancer screen Blood disorder evaluation Parasite prevention Vaccinations Discuss behavior and nutrition Schedule spay/neuter after 1 year	Breed-specific physical abnormalities plus Cataracts, Progressive retinal atrophy (PRA), and Pannus Urolithiasis Diabetes and Hypothyroidism Hip dysplasia and Elbow dysplasia Epilepsy Lymphoma and Hemangiosarcoma von Willebrand's disease (vWD) and Immune-mediated Hemolytic Anemia and Thrombocytopenia (IMHA/ITP)
	Senior: 40 to 59 in People Years	0	9 years through 10 years	Head-to-tail physical examination Eye disease screen Internal organ health evaluation Endocrine screening Bone and joint exam Neurological assessment Cancer screen Blood disorder evaluation Parasite prevention Vaccinations Discuss mental and physical well-being	Breed-specific physical abnormalities plus Cataracts, Progressive retinal atrophy (PRA), and Pannus Urolithiasis Diabetes, Hypothyroidism, and Hyperadrenocorticism (Cushing's disease) Hip dysplasia and Elbow dysplasia Epilepsy Lymphoma and Hemangiosarcoma Immune-mediated Hemolytic Anemia and Thrombocytopenia (IMHA/ITP)
How We'll Keep	Golden Years: 60+ in People Years	0	11+ years and older	Head-to-tail physical examination Eye disease screen Internal organ health evaluation Endocrine screening Bone and joint exam Neurological assessment Cancer screen Blood disorder evaluation Parasite prevention Vaccinations Cancer screen	Breed-specific physical abnormalities plus Cataracts, Progressive retinal atrophy (PRA), and Pannus Urolithiasis Diabetes, Hypothyroidism, and Hyperadrenocorticism (Cushing's disease) Hip dysplasia and Elbow dysplasia Epilepsy Lymphoma and Hemangiosarcoma Immune-mediated Hemolytic Anemia and Thrombocytopenia (IMHA/ITP)

