

COMMON DISEASES AND CONDITIONS IN THE BULLMASTIFF

The following list is meant to serve as a guide for understanding common health problems in the Bullmastiff. It is by no means all encompassing. The list is organized alphabetically and includes a synopsis on the given condition with focus on definition, symptoms, diagnosis, treatments, and prognosis. Owners may use it as a screening tool to help identify a health problem. It can also be used as a beginning point for discussion with veterinarians and breeders on health issues. Breeders may include this list in puppy packets to help new owners identify problems that might arise and to encourage an exchange of information.

ALLERGIES

Allergies are an immune mediated response by the animal towards a given antigen. Allergies can be caused by many things, including food, fleas, and the environment (i.e., grass or pollen). Symptoms often include red, itchy skin on the feet or groin, dry, flaky skin, excessive hair loss, reddened ears with a foul-smelling discharge, and weepy, watery eyes or a runny nose. The animals will often scratch or clean themselves excessively. Veterinarians have several techniques available to identify allergens including intradermal skin testing and blood tests. A simple process of elimination will sometimes suffice. Treatment may be as simple as eliminating a cause (such as a change to a natural diet). In cases where avoidance and environmental changes don't help, antihistamines are sometimes used. More severe cases are often treated with short-term steroids. Immunotherapy ("allergy shots") can be very effective. However, allergy shots are not without risks. Due to the fact the animal is receiving injections of very small doses of what they are allergic to, there is the possibility for a systemic or anaphylactic reaction.

BLOAT (Gastric Dilation and Volvulus or GDV)

Bloat is a condition in which the stomach fills with air (dilation) and twists on its long axis (volvulus), thereby causing obstruction and cutting off the blood flow to vital organs. This potentially and often fatal condition can occur in any dog but is especially prevalent in large, deep-chested breeds. The exact cause is unknown. Bloat often occurs within a few hours of eating followed by excessive exercise, but it can also occur under normal, daily routine. Symptoms include abdominal distension, restlessness, pacing, unsuccessful attempts to vomit or pass stool, and lethargy. Diagnosis is confirmed by x-ray. Treatment can involve "decompression" (passing a tube through the mouth to the stomach to release the gas), but surgery is indicated in severe cases. Even in those cases where decompression is successful, surgery to prevent reoccurrence should be considered. Bullmastiff owners should be familiar with the signs and symptoms of bloat and establish a plan for immediate treatment. **Early detection and immediate medical intervention is essential if the dog is to survive.**

CANCER

Cancer is an immunologic condition brought about by a prolific response of a given abnormal cell type within the body. It is present in all breeds and the exact causes are unknown. In Bullmastiffs, the most common cancers are:

- **Hemangiosarcoma.** This is a particularly aggressive form of cancer originating in the endothelial cells. It can appear anywhere in or on the body, but most commonly occurs in the spleen or other internal organs, and death can occur with little or no warning. A large mass may be felt in the abdomen; symptoms of sudden blood loss such as weakness or collapse may occur if the tumor ruptures. However, there may be no outward symptoms at all. Complete surgical excision of tumors in the skin (that have not invaded other tissues) can sometimes result in a good prognosis. When tumors are discovered elsewhere, the prognosis is poor.
- **Lymphoma/Lymphosarcoma.** This is another aggressive form of cancer which involves the lymphatic system and sometimes the liver and spleen. Symptoms vary depending on which part of the body is affected, though the disease is most often detected due to enlarged lymph nodes on the neck. Chemotherapy can be an effective treatment, but prognosis is usually guarded.
- **Mast Cell Tumors.** These are tumors that form when mast cells, a blood cell typically associated with the body's response to allergens or inflammation, turn cancerous. They most often appear in the skin or subcutaneous tissues, but can metastasize to other areas of the body, especially the spleen, liver, bone marrow, and lymph nodes. Their "benign" appearance belies their unpredictable behavior. Prompt surgical excision and biopsy of **any** skin tumor is the best defense. Removal of the tumors generally results in a good prognosis.
- **Osteosarcoma.** This is an aggressive form of bone cancer that primarily affects large and giant breeds. The first sign is usually lameness and/or swelling, most often in a front leg, and diagnosis

is confirmed by x-ray. Unfortunately, by the time symptoms appear, it may well have metastasized to internal organs. Treatment involves surgery and chemotherapy, but the prognosis is usually poor.

CARDIAC

The most common heart problems in Bullmastiffs are valvular disorders, sub-aortic stenosis (SAS), and cardiomyopathy. Owners are encouraged to report to their breeders if any heart problems are diagnosed.

- **Heart murmurs.** These abnormal heart sounds are usually caused by an abnormal heart valve. Heart murmurs can be congenital or acquired. While many congenital murmurs will never cause a problem during the dog's lifetime, some can cause problems later on, and some may be early signs of more serious heart problems. Some heart murmurs are caused by a viral assault. Cardiomyopathy may be caused by such viral infection. If it appears that the dog is developing normally and there are no other clinical signs of heart disease, the murmur may be considered "innocent".
- **Sub Aortic Stenosis (SAS)** is characterized by a narrowing of the outflow track from the left ventricle of the heart to the aorta. Thankfully, SAS is a relatively uncommon cause of a heart murmur. However, it can be life threatening and does show up from time to time. SAS is known to be hereditary. It is usually diagnosed with an echocardiogram and can be treated with medications.
- **Cardiomyopathy.** This is, literally, "sick heart muscle".

While weakness, lethargy, stunted growth, exercise intolerance, fainting, or abnormal heartbeats (arrhythmias) may be present, both of these heart conditions (SAS and cardiomyopathy) can also progress undetected until they result in sudden death. Listening to the heart with a stethoscope is the first step in assessing a dog's cardiac condition, but it is not always adequate, especially in a short-nosed breed such as the Bullmastiff. Further tests involving EKGs and cardiac ultrasound may be indicated. A consultation with a canine cardiologist is recommended when abnormalities are detected. Some treatments to manage cardiac disease are available through your veterinarian.

EYES

- **Entropion.** This is perhaps the most common eye problem in all heavily wrinkled breeds, including the Bullmastiff. It is a condition where the eyelid inverts, or rolls inward, causing eyelashes and hair to rub against the cornea. It can be hereditary as well as an acquired condition (i.e., as the result of an eye injury). Any dog with recurrent or chronic eye discharge, watering, or irritation should see a veterinarian. Left untreated, this condition can result in some serious problems including infections. Surgical correction is the most effective treatment. Once again, owners are encouraged to report this diagnosis to the breeder.
- **Progressive Retinal Atrophy (PRA).** PRA is another inherited eye disorder in which the retinas have either arrested development (retinal dysplasia, which generally appears around 2 months of age) or early degeneration (appearing anywhere after 1 year of age). This is not a painful disease, and the eyes appear normal. The first indications are usually a reluctance to enter a dark hallway or stairwell, a classic sign of early night blindness. An examination by a veterinary ophthalmologist will detect PRA, although there is no treatment at this time. The condition worsens over time and total blindness is the result. A diagnosis of PRA should be reported to the breeder. A DNA test has recently been developed to detect PRA. The disease is inherited as a dominant, meaning that there are no "carriers". Affected dogs have the disease, and non-affected dogs are clear. For more information regarding the new DNA test, contact Dr. Greg Acland at gma2@CORNELL.EDU.

HYPOTHYROIDISM

This condition results when insufficient thyroid hormones (usually T3 or T4) are produced. It is characterized by a wide variety of symptoms including: obesity, lethargy, hair loss (mostly in patches on the sides or tail areas), infertility, abnormal heats, skin and coat problems, interdigital cysts, and the onset of sudden aggression. Diagnosis is confirmed through blood tests. Treatment with synthetic thyroid supplementation is very effective.

KIDNEY AND URINARY

Chronic kidney failure is one of the most common canine conditions, and it afflicts all breeds. In many instances, it is a result of old age; the kidneys begin to wear out after a lifetime of filtering wastes from the bloodstream. Chronic kidney failure can also be attributed to renal diseases such as:

- **Glomerulonephritis:** a disease in which the internal structures of the kidney become inflamed.
- **Renal Amyloidosis:** an accumulation of abnormal proteins in the kidneys.

While chronic kidney failure is not a curable disease, it can be a manageable one if detected early enough.

- **Cystinuria** is a hereditary disease in which painful kidney and bladder stones form, and it is more likely to cause serious problems in males.

Be alert for any symptoms that might indicate these as well as other kidney/urinary disease: frequent drinking, frequent urinating, difficulty passing urine, blood in the urine, decreased force of stream, vomiting, and/or bad breath. Routine blood work is also useful in early detection of kidney problems. Such diseases are often medically or surgically treatable, though not curable.

ORTHOPEDICS/JOINT DISEASE

- **Hip and elbow dysplasia** plagues all dog breeds. The disease is characterized by abnormally formed joints and, quite often, accompanying degenerative osteoarthritis. In most but not all cases, the affected dogs will be quite lame. While dysplasia can be inherited, the exact mode of inheritance has not yet been established. Environmental and nutritional factors may also play a role in its development. Symptoms include lameness, pain upon walking or running, difficulty rising, problems negotiating stairs, and a decreased range of motion. Diagnosis includes a physical exam and x-rays and evaluations by registries such as PennHip or OFA. Treatment includes surgery, and nutritional and environmental management. A diagnosis of dysplasia should be reported to the breeder.
- **Cruciate ligament injuries**, tears and ruptures in the knee, are common in the breed. Symptoms include rear leg lameness; a severe tear will prevent the affected hind leg from bearing any weight. The knee area may feel "thick" and may "crunch" when a range of motion test is performed. Strained ligaments can be rested through crating, leashed walks, and restricted exercise for several weeks. Torn or severed ligaments require surgery. Obesity is a major risk factor for cruciate ligament injuries. Trauma and prolonged inflammation of the joint, due to conditions such as patellar luxation have been implicated in these injuries.

There are several developmental bone diseases that primarily affect puppies of rapidly growing, large breeds, and males in particular. They are:

- **Hypertrophic Osteodystrophy (HOD).** This condition is characterized by severe pain, swelling, and lameness, usually in multiple limbs, sometimes accompanied by fever. The cause is unknown, diagnosis is made by x-ray, and treatment is supportive (i.e., pain management, antibiotics, rest). Prognosis is good.
- **Osteochondritis Dissecans (OCD).** This is a disease in which the cartilage is damaged and/or grows abnormally, resulting in severe joint pain. Symptoms include limping, especially in the shoulders, elbows, and hocks. Suspected causes are trauma, heredity, and nutritional imbalance. Confinement, a modified diet, and pain management are the recommended treatments. Surgical removal of the damaged cartilage is indicated only in the most severe cases. Complete or partial recovery is likely.
- **Panosteitis (Pano).** This is a condition characterized by acute, sudden, "wandering" lameness brought on by rapid growth in the limbs. Symptoms may come and go over a period of weeks or months, and may also include fever and anorexia. Diagnosis can be made by x-ray, but in mild cases, an x-ray may not reveal the problem, so Pano is often considered a "diagnosis of last resort or exclusion" when all else has been ruled out. It is self-limiting and disappears spontaneously; the cause is unknown. Treatment includes rest, pain management, and exercise restriction. Lack of treatment may result in arthritic conditions later in life. The prognosis for complete recovery is excellent.