

## Top 5 ailments in dogs

### **Introduction**

The inspiration for this article came from the Banfield Pet Hospital's State of Pet Health 2011 Report, Volume 1— the first of its kind to capture and analyze the medical data from 2.1 million dogs and nearly 450,000 cats in USA. As the largest general veterinary practice in the world, operating 770 hospitals in 43 states and employing more than 13,000 associates—including 2,400 licensed veterinarians—Banfield Pet Hospital has a unique understanding of the health of companion animals.

MSD Animal Health shares this extensive commitment to innovation and as a company, would like to share our resources to help pet owners throughout South Africa get a better understanding of the potential challenges that they may be facing when taking on the responsibility of a pet dog.

Pets are family and I would like to share my caring and compassion for dogs in an effort to partner with our clients and pet owners in South Africa, to ensure pets stay part of the family by providing outstanding preventive care. We want to use our unique knowledge and research to help pet owners better care for their pets and raise awareness of serious health issues affecting pets. The prevalence of diseases is constantly changing and the aim of this article will be to discuss five key diseases which are seen in veterinary clinics across South Africa and are affecting the health of our pet population.

MSD Animal Health offers veterinarians, farmers, pet owners and governments the widest range of veterinary pharmaceuticals, vaccines and health management solutions and services. MSD Animal Health is dedicated to preserving and improving the health, well-being and performance of animals. The company will conduct its business according to the highest standards of quality, professionalism and integrity. Most importantly, we believe that early diagnosis of disease will positively impact a pet's health and lifespan. The author believes that the information provided in this article will be useful to pet owners as we partner to help pets live longer, healthier lives.

### **Dental Disease**

Dental disease is the most common disease in dogs and cats, affecting 78 percent of dogs over the age of 3 in the USA, and although there is no official work done in South Africa to render a comparative figure, the author's experience from private practice would tend to agree that South Africans would most likely have a very similar prevalence of dental disease.

Dental disease includes any health issue affecting the mouth, including inflammation, tartar, gingivitis and periodontal (affecting the structures and tissues around the tooth) disease, among other issues. Periodontal disease is classified by the severity of its impact on teeth and gums: It is divided into four stages, ranging from mild tartar and gingivitis (inflammation of the gums), to gingival recession and degradation of the periodontal ligament, to significant inflammation and loss of teeth. Periodontal disease, when severe, can lead to bacterial infections that spread through the bloodstream to other organs, including the heart, kidneys and liver, causing chronic disease and even organ failure.

Risk factors for developing dental disease in dogs include increasing age and small breed size. Although increasing age is a risk factor for the development of dental disease, it can occur at any age. Prevention early in life will help to reduce the frequency and severity of dental disease later in life. Professional cleanings are vital because they include measures pet owners can't take at home. These measures include a thorough examination of a pet's teeth and gums, dental radiographs may be done to evaluate the entire tooth and check for bone loss or abscesses, and the use of special tools to remove tartar from the teeth below the gum line.

### Preventive recommendation:

- Regular dental examinations by a veterinarian and annual professional dental cleanings, especially for dogs over the age of 2.

- At-home preventive care including twice-a-week brushing.
- Dental chews, water additives and specially formed dry pet food may also be used to help prevent tartar build-up.

### **Ear infections – Otitis externa**

Otitis externa is inflammation of the outer ear canal; in 2010 in the USA, it was the most common diagnosis in dogs and cats after dental disease in the Banfield pet population. Otitis externa is an important disease not only because it is common, but because it causes significant discomfort and can become a lifelong problem that is expensive to treat. Dogs are more likely to develop ear infections than cats due to their lifestyle. Swimming, outdoor activities and large amounts of hair in the ears contribute to the increased risk in dogs.

Clinical signs of ear problems exhibited include: bad odour, scratching or rubbing of ears and head, discharge in the ears, or redness or swelling of the ear flap or canal. Some pets may show discomfort by shaking their head or tilting it to one side, reacting with pain dramatically when touched around the ears or showing changes in behaviour such as depression or irritability.

Otitis externa can be triggered by many different causes. Underlying problems may include allergies (food, flea allergy dermatitis, canine atopy, etc.), ear mites, bacterial or yeast infections or irritation from foreign bodies inside the external ear canals.

Diagnosis of otitis externa is made using an otoscope to look down into the ear canal and assess the amount of inflammation present, whether the ear drum is involved, and whether there are any foreign bodies, tumours/polyps or other potential causes present. Swabs can be taken of the ear canal, smeared on a microscope slide, stained, and examined for bacteria, yeast and mites. A thorough history and physical examination may help to determine the root of the problem, especially in the case of allergies.

#### Preventive recommendation:

- Ear cleaning at least 1-2 times weekly; using proper techniques is essential for maintaining healthy ear canals in dogs that have been diagnosed with ear infections (or are at risk for ear infections).
- Certain pets, such as dogs with allergies, may be predisposed to recurrent ear infections. Regular examinations and veterinary-recommended preventive care techniques can help reduce the frequency and severity of ear infections. Food allergy patients may require multiple food trials to determine the right diet, while other allergic dogs may require life-long maintenance treatment to control the allergy and avoid secondary complications.

### **Flea and Tick Infestations**

Fleas are common external parasites of mammals across the globe, and the prevalence of fleas is highest of all the external parasites. Fleas (as well as ticks) are important external parasites to prevent; their bite causes a great deal of irritation, and they can transmit disease to both animals and humans.

Flea allergy dermatitis is one of the most common skin conditions in dogs. As fleas bite to eat, they inject saliva under the skin causing an irritation that can lead to scratching, hair loss and infections. In addition to the irritation caused by the bite, fleas can also transmit tapeworms and spread certain infectious diseases. Large numbers of fleas can even consume so much blood that a puppy, kitten, or a small pet can die as a result of blood loss (flea anaemia).

Ticks are small insects that live by sucking blood from mammals such as animals and humans. They are found in most parts of South Africa and can transmit diseases such as Canine Babesiosis (biliary fever) and Canine Ehrlichiosis (tick bite fever) to dogs. These diseases can potentially be life-threatening.

The most common symptoms reported by pet owners are total or partial anorexia, mucous membrane pallor, depression and red discoloured urine. The signs can manifest anytime from 10 – 28 days after transmission has taken place. Additional clinical signs seen during consultations are fever, jaundice, enlarged spleen, enlarged peripheral lymph nodes, bleeding from the nose or gums (Ehrlichiosis; in chronic bleeding the teeth may appear black), vomiting, diarrhoea, coughing, swelling of the hind limbs and scrotum, lameness, weakness or paralysis especially of hindquarters, emaciation (when chronic), haemorrhages in the skin especially on the abdomen (Ehrlichiosis), acute death due to severe internal bleeding. Confirming the diagnosis involves visualizing the microscopic blood parasites on a blood smear – more difficult with Ehrlichiosis.

#### Prevention recommendation:

- Many suitable products are available for the prevention and treatment of fleas. These are available in the form of shampoos, rinses, sprays, mists/fogs, tablets and spot-on treatments. Before selecting a product, pet owners should work directly with a veterinarian to ensure the selected product is appropriate for their pet's lifestyle.
- Pet owners should only use flea and tick products that have been registered and approved for use by the South African Medicines Control Council and other authorities.
- Prevention of tick infestation involves environmental management (such as building fences and cutting grass to reduce access to tick habitat) and application of approved products to animals or the environment.
- When returning from outdoor activities, a pet's skin and coat should be inspected in order to identify fleas and ticks. The use of a flea comb will often help pick up non-visible parasites hiding closer to the skin.
- Some ingredients in flea and tick preventives are not safe for use in cats e.g. permethrin and amitraz. Pet owners with both dogs and cats in the home should discuss proper preventive medications with their veterinarian to eliminate any health risks to cats.
- Fleas live in areas frequented by animals and humans and seek out dark, warm, humid places—usually carpets, bedding, under furniture or in garden debris.
- Physical removal of a tick within 24 to 48 hours is thought to prevent transmission of most tick-carried diseases.

#### **Internal Parasites**

Internal parasites are important diagnoses as they can cause significant discomfort to pets as well as pose a zoonotic disease risk (they can be transmitted from animals to humans). Some of the most common internal parasites carry a zoonotic risk.

Roundworms and hookworms are zoonotic parasites that inhabit the intestinal tract of dogs. While most common in puppies, infection can occur in dogs of all ages. The mouthparts of hookworms attach to the pet's small intestine allowing them to feed on the pet's blood. Roundworms and hookworms can cause mild to extreme illness in pets and even death in some cases.

Most pets infected with roundworms and hookworms show no signs of infection. Some pets, especially puppies or kittens, become noticeably ill from roundworms and hookworms. Clinical signs most commonly observed in pets severely infected with roundworms and hookworms include: vomiting, severe weight loss, loss of appetite, swollen stomach, severe anaemia and even death.

Tapeworms are long, flat, segmented parasites that live in the small intestines of dogs, cats, domestic animals and wildlife. Tapeworms do not have a mouth; instead, they attach to the inside of the intestine with suckers. Some also have hooks to aid attachment. Pets infected with tapeworms may not show any clinical symptoms; pet owners usually notice tapeworm segments around the anal area or on the surface of the stool. The segments may move or appear as grains of rice caught in the hair around the rectum. They may also be found in places where infected pets rest and sleep.

Whipworms live in the intestines of dogs, coyotes and wolves. Cats may also become infected with whipworms, but it is more common in dogs. Adult whipworms are shaped very thin at the front and become wider toward the rear. As with roundworms and hookworms,

many pets infected with whipworms will initially show no sign of infection. However, whipworms can cause mild to extreme illness in pets and in some cases lead to death.

Whipworm infection can lead to bloody diarrhoea, severe weight loss, dehydration and severe anaemia. Whipworms can cause disease in humans, however, there is no evidence they are transmitted from animals to humans.

Who in the family is at risk? All human family members are potentially at risk from zoonotic parasites. The presence of dogs in a household, especially puppies, increases this risk due to their soiling habits. Children run a higher risk of contracting a parasite due to their play habits, attraction to pets and pica (eating dirt). In addition to regular deworming of pets, proper hygiene is one of the best ways to reduce the risk of zoonotic diseases.

#### Preventive recommendation:

- Deworming medication, administered by a veterinary professional, is the recommended way to prevent internal parasites. The recommended frequency of deworming varies depending on the life stage and individual environment of the pet.
- Clean up after pets to remove potentially infective eggs from the environment before they spread.
- Children should be discouraged from eating soil. Sand boxes should be covered when not in use and potentially contaminated areas avoided.
- Practice good hygiene in order to reduce the risk of zoonotic transmission.
- The treatment, control and prevention of internal parasites and the diseases they cause needs to remain at the forefront of veterinary medicine, especially given their zoonotic potential.

#### **Obesity in Dogs**

Obesity is a nutritional disease which is defined by an excess of body fat. Dogs that are over nourished, lack the ability to exercise, or that have a tendency to retain weight are the most at risk for becoming obese. Obesity can result in serious adverse health effects, such as reducing the lifespan, even if your dog is only moderately obese. Multiple areas of the body are affected by excess body fat, including the bones and joints, the digestive organs, and the organs responsible for breathing capacity.

Obesity is common in dogs of all ages, but it usually occurs in middle-aged dogs, and generally in those that are between the ages of 5 and 10. Neutered and indoor dogs also tend to have a higher risk of becoming obese.

Symptoms of obesity include weight gain, excess body fat, the inability (or unwillingness) to exercise and an above-ideal score in a body condition assessment.

There are several causes of obesity, but is most commonly caused by an imbalance between the energy intake and its usage -- eating more than the dog can possibly expend. Obesity also becomes more common in old age because of the normal decrease in a dog's ability to exercise. Unhealthy eating habits, such as high-calorie foods, an alternating diet, and frequent treats can also bring on this condition. Other common causes include hypothyroidism, insulinoma, hyperadrenocorticism, neutering.

Obesity is diagnosed primarily by measuring the dog's body weight or by scoring its body condition, which involves assessing its body composition. Your veterinarian will do this by examining your dog, palpating its ribs, lumbar area, tail, and head. The results are then compared to the breed standard. If a dog is obese, it will have an excess body weight of approximately 10 to 15 percent.

#### Preventive recommendation:

- Reduced caloric intake and increasing your dog's time spent exercising. Your veterinarian will most likely have a prepared diet plan that you can use to refigure your dog's eating schedule, or will help you to create a long-term diet plan for your dog.

- If your animal is predisposed to weight gain, diets that are rich in dietary protein and fibre, but low in fat, are typically recommended, since dietary protein stimulates metabolism and energy expenditure, along with giving the feeling of fullness, so that your dog will not feel hungry again shortly after eating. Dietary fibre, on the other hand, contains little energy but stimulates intestinal metabolism and energy use at the same time.
- Physical activity: the most common suggestions for dogs are leash walking for at least 15 minutes, twice a day, and playing games such as fetch.
- Monthly monitoring of your dog's weight and establishing a life-time weight maintenance program to maintain your dog's ideal body condition score. With a firm commitment to your dog's health and weight, you will feel confident that your dog is eating healthy and feeling its best.