

## Necrotizing Fasciitis (flesh eating syndrome) in dogs

Berrimah Veterinary Laboratories has confirmed cases of necrotising fasciitis in racing greyhounds in October 2017 from Darwin. Necrotizing fasciitis for dogs is a rare but often fatal disease caused by *Streptococcus canis* bacteria. Death can occur within 12 hours of initial symptoms, and therefore treatment must begin immediately to be successful. The bacteria usually enters through the skin and can be spread by contact with infected dogs or exposure in a contaminated environment. People are generally not at risk from this *Streptococcus* bacteria, however good personal hygiene should be maintained.

### What is Necrotizing Fasciitis?

Necrotizing fasciitis is a rare, bacterial infection syndrome that appears suddenly and progresses rapidly, leading to systemic illness, toxic shock and death if left untreated. It may also be referred to as “flesh eating bacteria” and destroys the skin, fat, and other tissues. There are different bacteria causing this syndrome in different species including humans. *Streptococcus canis* bacteria has been found to be the cause of the disease in Darwin dogs. It is a normal bacteria found on the skin of dogs around the world and on rare occasion may cause disease in association with other factors such as general health, hygiene and weather.

### Symptoms

Dogs that are suffering from necrotizing fasciitis will generally experience intense pain in the affected part. The areas that are most likely to be affected are; elbows, hock joints, flanks and the skin of the chest and abdomen. Infection may start with a small skin lesion and progress to a large area of necrosis and ulceration within a few hours.

Other symptoms include:

- Dullness, depression or loss of appetite
- Limping and non-weight bearing
- Swelling which is painful to touch and leaves an indentation when pushed in
- Skin may become bruised or may go black and slough off
- A foul-smelling discharge from the wound
- Gums may be a dark red colour
- Increased temperature >40°C (Normal is 37.9-39.9°C)
- Struggling to breathe.

### What should I do if my dog starts to show symptoms?

The dog should be assessed immediately by a veterinarian as soon as any symptoms are noticed. It is important that the condition is diagnosed quickly in order to initiate successful treatment. Confirmation of the diagnosis of necrotizing fasciitis is by bacterial culture but treatment should not be delayed.

The severe pain that the dog experiences in cases of necrotizing fasciitis is out of proportion to the symptoms. This is due to the severe tissue damage under the skin that is caused by bacterial toxins and enzymes that damage tissue. Immediate assessment and treatment is required for the welfare of the dog.

### Treatment

Rapid delivery of assertive treatment is critical for a dog suffering from necrotizing fasciitis. The treatment may involve; intensive supportive care, antibiotic treatment, pain relief, multiple surgeries and an extended period in the veterinary clinic. If euthanasia is chosen it should be conducted in a timely manner to prevent unnecessary suffering by the animal.

## Transmission

*Streptococcus canis* bacteria can be spread by contact with an infected dog or equipment (water or food bowl, bedding, lead or harness) or exposure to bacteria in a contaminated environment such as an infected kennel. The bacterium can be a normal bacterium of dogs and can be difficult to eradicate.

## Prevention - Bacteria enter through breaks in the skin. Wound prevention is critical.

- **Kennel hygiene:** Kennels, food and water bowls and other equipment requires regular cleaning and disinfection. The dog should be removed from the kennel area when cleaning. Bedding or dirt should be removed and replaced where possible and concrete and fittings should be scrubbed with detergents and then cleaned with a chlorine or phenolic based disinfectant. The facility should be dry.
- Pressure cleaning should be avoided if dogs are in kennel area to prevent the bacteria being spread through the air. Personal protective equipment including a suitable face mask should be worn when using pressurised water. Cuts or abrasions on cleaners should be covered with water tight dressings.
- **Dog hygiene:** wash the dogs with a chlorhexidine based wash and leave on the skin for 10 minutes prior to washing off. Check dogs regularly for skin condition. Consider using a conditioner or moisturiser.
- An antibacterial cream may be applied to wounds even if they are tiny. Common wound areas are the point of the elbow and shoulder blade.
- **Tick and other external parasite control:** appropriate tick and parasite control will reduce skin abrasions.
- **Fly and biting insect control:** prevention of flies will decrease scratching and irritation leading to abrasions of the skin.
- **Diet:** an appropriate diet and calorie intake for the work that the dogs are undergoing will maintain overall health and wellness.

Seek further advice from your veterinarian.



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