Dermatophytosis (Ringworm)

Information for Dog Owners

Key Facts

- Ringworm is a very common and contagious fungal infection.
- It affects the hair coat, skin and nails and causes hair loss and skin disease.
- People are at high risk for getting ringworm from an infected dog.
- Effective prevention methods are critical for decreasing risk of the spread of dermatophytosis to other dogs and people.

What is it?

Dermatophytosis (or ringworm) is a common disease in dogs caused by a fungus (*Microsporum* or *Trichophyton*). Dermatophytosis infects dogs after they have contact with another infected animal or human, or from contact with something contaminated with the fungus, such as grooming equipment, that has been used on an infected dog. After contact happens, the fungus attaches to the dog's hair, skin or nails and signs of infection can develop within 1 to 3 weeks. When dermatophytosis occurs in a dog, it typically causes hair loss and scaling or crusting of the skin. Dogs may be itchy. It occurs world-wide and is most common in warm or humid climates.



Who gets it?

Dogs living with or in close contact with other infected dogs, cats or people are at highest risk. Dogs whose lifestyles increase their risk of ringworm exposure (e.g. those that spend time with or near groups of other dogs who may be infected) are at greater risk of being exposed. Dogs of all ages can be infected; however, ringworm is most common in young dogs (puppies), old dogs, and dogs with a compromised immune system.

Can people get sick with it?

Yes. Ringworm is highly contagious and considered zoonotic (can be passed between animals and people).

How is it spread? (Transmission & Infection Risk)

Dermatophytosis occurs when a dog is in direct contact with an infected animal or human, or has contact with items contaminated by an infected animal (e.g. grooming equipment, sharing a kennel).

What should I look for? (Signs of Disease)

Many infected dogs do not show signs of disease, and may be subclinically infected (i.e. carry the infection but not have any obvious signs of skin disease). When illness does develop, it is most commonly hair-loss (alopecia), skin scales or crusts. Many dogs are itchy, but some are not. Some dogs have a 'classic' ring-shaped skin rash.

The most common signs of illness are:

- Hair loss which may be in multiple different locations on the dog's hair coat, or be in a single site.
- Skin disease scales and crusts, patchy rashes with reddening or darkening of the skin
- Itching (scratching and licking)



How is it diagnosed?

Diagnosis is made by recognizing signs of infection in a dog and testing (culture and microscopic exam) to confirm infection. Unfortunately, dermatophytosis is commonly misdiagnosed since it can 'look' like other common skin infections. A positive dermatophyte culture test helps confirm infection and ensure appropriate treatment.

The following is what your veterinarian will typically consider to determine if a dog has ringworm:

- Is there history of being near a dog, cat, other animal, or human with ringworm, or has your dog been in close contact with many other dogs?
- 2. Are there clinical signs that are compatible with ringworm (i.e. skin or hair or nail changes)?
- 3. Is there another infection or disease that could be the cause of your dog's signs?
- 4. Is your dog positive for dermatophytosis on tests such as culture, PCR, or microscopic exam?

What is the treatment? Will my dog recover?

Ringworm is a 'self-limiting' disease that typically resolves on its own in otherwise healthy animals. However, this can take months, so treatment is recommended to speed up the process and to reduce the time that a dog can infect other animals or people.

Treatment consists of hair coat clipping, topical therapy (medicated shampoo, dips or baths performed by your veterinarian), and sometimes oral anti-fungal medications.

Dogs with appropriate treatment respond quickly and completely once therapy is begun; however, a full treatment course is important to fully eliminate the fungus. Doing this requires a significant time commitment. Additonally, all other household pets and any other dog in direct contact with your dog will require testing to ensure they are not infected, and treatment if they are found to be positive. After treatment, follow-up rechecks and cultures are needed to ensure the infection has been eliminated.

Cleaning of the kennel or household is essential for preventing re-infection and reducing further spread.

How can I stop this from happening to my dog and other dogs?

Infection Control: Screening of any new dogs for hair loss, scales, crusts or itching prior to introducing them to the home or kennel is important to limit spread. Unfortunately, since the fungus can be carried by some dogs with no obvious signs of disease, screening for skin disease is not a 'guarantee' for prevention. When ringworm is suspected, testing should be considered and a plan put in place to contain possible spread between dogs while awaiting test results on the suspect dog.



Avoidance of shared equipment (grooming equipment, kennels) will help prevent spread. Strict cleaning protocols and disinfection of any materials or equipment used on an infected dog is critical. Floors, carpeting, and furniture that the infected dog has been in contact with must be rigorously disinfected and cleaned. Most disinfectants do not kill the ringworm fungus, so it is important to carefully choose one that will (see Resources). Bleach can be used on hard surfaces and steam cleaning can be helpful with fabrics. People must use gloves (that are disposed of after contact and followed by washing hands with soap and water) and protective clothing when handling or touching an infected dog.

Risk Prevention

Keeping your dog separated from any dog with signs of hair loss or skin infection is advised. Avoid sharing grooming equipment, kennels, or bedding with other dogs at canine group events. If equipement must be shared between dogs, it is important that it is cleaned and disinfected between uses.

Outbreak management

When a number of dogs in a group or event become infected, it is recommended to immediately contact someone with experience in veterinary infectious disease risk assessment and outbreak management to help control the further spread of infection, particularly with larger dog group events and facilities such as kennels that house groups of dogs together.

Zoonotic alert

Ringworm can be passed between dogs and people. Diagnosis or suspicion of ringworm in a dog should prompt any people that are in contact with that dog to monitor themselves for signs of ringworm and speak with a heatlhcare provider with any questions or concners. Dogs can act as sentinels (indicators) for human disease.

Additional Resources

Infectious Disease in Dogs in Group Settings (includes information on disinfectants)

Created by:

Michelle Evason, BSc DVM DACVIM (Small animal internal medicine)

Jason Stull, VMD MPVM PhD DACVPM

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