

RINGWORM IN DOGS

What is ringworm, and what causes it?

Ringworm is a skin disease caused by a fungus (plural: fungi). Because the lesions are often circular, it was once thought to be caused by a worm curling up in the tissue. However, there is no truth to that; it has nothing to do with a worm.

There are four fungal species affecting dogs which can cause the disease that we call ringworm. These may also affect humans. The fungi live in hair follicles and cause the hair shafts to break off at the skin line. This usually results in round patches of hair loss. As the fungus multiplies, the lesions may become irregularly shaped and spread over the dog's body.

How long does it take to get it?

The incubation period is 10-12 days. This means that following exposure to the fungus, about 10-12 days will pass before any lesions occur.

How is ringworm diagnosed?

- A. Diagnosis is made in one of three ways:
- B. Identification of the typical "ringworm" lesions on the skin
- C. Fluorescence of infected hairs under a special light (however, only two or the four species of fungi fluoresce)
- D. Culture of the hair for the fungus. The last method is the most accurate, but it may take up to 2-3 weeks for the culture to become positive.

How is it transmitted?

Transmission occurs by direct contact between infected and non-infected individuals. It may be passed from dogs to cats and visa versa. It may also be passed from dogs or cats to people and visa versa. If your child has ringworm, he or she may have acquired it from your pet or from another child at school. Adult humans usually are resistant to infection unless there is a break in the skin (a scratch, etc.), but children are quite susceptible. If you or your family members have suspicious skin lesions, check with your family physician.

Transmission may also occur from the infected environment. The fungal spores may live in bedding or carpet for several months. They may be killed with a dilution of chlorine bleach and water (1 pint of chlorine bleach in a gallon of water) (500 ml in 4 liters) where it is feasible to use it.

How is it treated?

There are several means of treatment. The specific method(s) chosen for your dog will depend on the severity of the infection, how many pets are involved, if there are children in the household, and how difficult it will be to disinfect your pets' environment. The one's that are appropriate for your situation are marked.

___1. **Griseofulvin.** This is a tablet that is concentrated deep in the hair follicles where it can reach the site of active fungal growth. Griseofulvin should be given daily. Dogs with active lesions should receive the tablets for a minimum of 30 days. At that time, your dog should be rechecked to be sure the infection is adequately treated.

These tablets are not absorbed from the stomach unless there is fat in the stomach at the time they are given. This can be accomplished by feeding a high fat diet, such as a rich canned dog food or a small amount of fat trimmings from meats (often available at the meat departments of local grocery stores upon request of the butcher) or by allowing the dog to drink some rich cream. This is the most important part of the treatment. If you are not successful in giving the tablets, please call us for help.

If you are aware of fat consumption having caused a problem for your dog in the past or if your dog has had an episode of pancreatitis, bring this to our attention immediately.

___2. **Topical antifungal medication.** Apply one of these products to the affected areas once daily for 10 days. Do not risk getting it in your dog's eyes by treating lesions very near the eye.

___3. **Baths using an antifungal shampoo.** A bath should be given 3 times on an every other day schedule. Bathe exposed but unaffected pets once. These baths are important in getting the spores off the hairs so they do not drop into the environment and result in re-exposure. A lather should be formed and left on for five minutes before rinsing.

___4. **Lime Sulfur Dip.** This should be done twice weekly for the first two weeks then once weekly for 4-6 weeks. Lime sulfur dip should also be applied to other pets (dogs or cats) in the household to prevent them from being affected. If they develop ringworm lesions, they should begin on griseofulvin. You should gloves when applying the dip. This is an effective form of treatment, but the dip has an objectionable odor and can tarnish jewelry.

___5. **Shaving of the dog's hair.** This will remove the infected hair. We recommend this only when the infection is extensive.

What should I expect from treatment?

Treatment will not produce immediate results. The areas of hair loss will get larger before they begin to get smaller. Within 1-2 weeks, the hair loss should stop, there should be no new areas of hair loss, and the crusty appearance of the skin should subside and the skin look more normal. If any of these do not occur within two weeks, your dog should be checked again.

How long will my dog be contagious?

Infected pets remain contagious for about three weeks if aggressive treatment is used. Contagion will last longer if only minimal measures are taken or if you are not faithful with the prescribed approach. Minimizing exposure to other dogs or cats and to your family members is recommended during this period.

I have heard that some dogs are never cured. Is this true?

When treatment is completed, ringworm should be cured. Although a carrier state can exist, this usually occurs because treatment is not long enough or aggressive enough or because there is some underlying disease compromising the immune system.