

Occupational Health - Zoonotic Disease Fact Sheets

DERMATOPHYTOSIS (Ringworm)

KEY FACTS:

- Ringworm is a common infection of the skin and nails that is caused by fungus.
- Approximately 40 different species of fungi can cause ringworm.
- The infection is called “ringworm” because it can cause an itchy, red, circular rash.
- The different types of ringworm are usually named for the location of the infection on the body.

SPECIES: Many species of wild and domesticated animals can get ringworm, including dogs, cats, cattle, sheep, goats, pigs, rodents, rabbits, and birds.

CAUSATIVE AGENT: Organisms are subclassified into: 1. Geophilic - inhabit soil, 2. Zoophilic - parasitic on animals, and 3. Anthropophilic -primarily infects humans. All can produce disease in humans. The three types of fungi that cause ringworm are Trichophyton, Microsporum, and Epidermophyton.

TRANSMISSION: Ringworm can spread by contact with objects or surfaces that an infected person or animal has recently touched or rubbed against, such as blankets, clothing, towels, bedding, combs, and brushes. In rare cases, ringworm can be spread to humans by contact with infected soil or from fungi in air, dust, or on surfaces of a room (spores persist on contaminated surfaces).

DISEASE IN ANIMALS: Disease in rodents is often asymptomatic and not recognized until people are affected. Infected cats are often asymptomatic. Dogs often show classic skin lesions. Varying severity of dermatitis occurs with local loss of hair. Deeper invasion produces a mild inflammatory reaction which increases in severity with the development of hypersensitivity. Ringworm is also fairly common in show lambs and is referred to as “club lamb fungus.” Lambs usually have circular, hairless areas with thick scabs on their head and face.

DISEASE IN HUMANS: Ringworm in humans is often mild and self-limiting. Symptoms of ringworm often depend on which part of the body is infected, but infected individuals typically develop itchy skin or scalp four to fourteen days after contact. If they develop a rash, it may be scaly, reddened, and circular. Ringworm on the scalp usually makes a bald patch of scaly skin and can result in hair loss.

DIAGNOSIS: Diagnosis is through visual observation of the affected skin and asking questions about your symptoms. A doctor may also choose to take small skin scrapings or nail clippings for fungal culture. *Please review current literature before prescribing diagnostic testing as recommendations may have changed.*

TREATMENT: The Centers for Disease Control recommends infected individuals keep their skin clean and dry, apply drying powders, lotions, or creams, and wash their bed sheets and clothes every day. In more severe cases, a physician may prescribe antifungal ointments, creams, or antifungal pills. *Please consult your physician for treatment as recommendations may have changed.*

PREVENTION/CONTROL: Screen newly received animals. Routine sanitization of contaminated environment, equipment, and caging is important to prevent infection. To prevent and control unintended infections, use uninfected animals for research, and isolate any animals used in clinical trials. Additionally, only conduct projects in laboratories with proper engineering controls and train staff members in the proper use of required personnel protective equipment.

More information on Ringworm can be found on the Centers for Disease Control and Prevention website at: <https://www.cdc.gov/fungal/diseases/ringworm/>