

# Ringworm in Rabbits and Guinea Pigs: Transmission, Signs, Diagnosis, Treatment

*Drs. Foster & Smith Educational Staff*

What is ringworm?

Ringworm is a skin disease caused by a fungus that can infect many mammals including rabbits and guinea pigs. The medical terms for ringworm infections are "dermatophytosis" and "dermatomycosis." There are several different types fungus that can cause ringworm; the most common type to cause disease in rabbits and guinea pigs is *Trichophyton mentagrophytes*; *Microsporum canis* may also cause disease.

How is ringworm transmitted?

Ringworm is most commonly found either on an infected animal or in the living quarters of infected animals. Spores from infected animals can be shed into the environment and live for over 18 months. Cats and other rabbits or guinea pigs are often the source of infection. They can be asymptomatic carriers and harbor and shed the organism without showing signs of infection. Ringworm can be transmitted by direct contact with an infected animal, or contact with an item (e.g.; grooming brush, bedding) that is contaminated with the spores. The incidence of infection varies with geographical area and environment. Young animals and those under stress (e.g.; overcrowding, high humidity, poor sanitation, malnutrition) are often at an increased risk of developing ringworm.

What are the signs?

Rabbits and guinea pigs with ringworm usually have patchy areas of hair loss that are dry and scaly. In rabbits, the lesions often start on the head, legs, and feet. In guinea pigs, the face and ears are affected first. In both animals, lesions may spread to other areas of the body, and may become reddish and often itch. If the animal scratches, it may result in more trauma to the skin and a secondary bacterial infection.

How is ringworm diagnosed?

Ringworm can be diagnosed through several different methods. A popular but not completely accurate way to diagnose the disease is through the use of a specialized black light called a Wood's lamp. Several species of the ringworm fungus will fluoresce when exposed to a Wood's lamp. However, it is estimated that up to half of the most common species of *M. canis* do not fluoresce, and *T. mentagrophytes* does not fluoresce, so this is not a good diagnostic tool in rabbits and guinea pigs.

Another method for identifying ringworm is to pluck hairs from around the lesion and examine them under the microscope using a preparation of KOH (potassium hydroxide) to make them more visible. Between 40% and 70% of the infections can be diagnosed this way.

The best and most accurate way to identify a ringworm infection is by collecting scales and crust from the lesion and performing a culture. There are special culture mediums designed specifically for identifying ringworm infections. Your local veterinarian can easily perform this routine culture.

How is ringworm treated?

Most rabbits will recover from the disease without treatment if any underlying environmental or nutritional factors are remedied. To treat rabbits and guinea pigs with isolated lesions, the area around the lesion should be thoroughly clipped down close to the skin. Care should be taken when clipping not to irritate the skin, as this may make the infection spread. Also realize that the clipped hair, clippers, and any grooming instruments that come into contact with an infected animal will harbor the spores and must be heat or chemically sterilized before being used on any other animal. Depending upon the extent of the lesions, they may be treated with keratolytic, miconazole shampoos, lime sulfur dips, and/or topical anti-fungal medications (e.g.; miconazole or clotrimazole cream). It is recommended that all animals in the household/colony be treated. Oral medications are also recommended. [Griseofulvin](#) should not be used in breeding or pregnant animals. Butenafine may be used in guinea pigs. Itraconazole has also been used in rabbits and guinea pigs. Treatments are usually continued for at least 2 weeks after the lesions have resolved and/or until there are two negative fungal cultures.

Because the ringworm fungus can survive for such long periods in the environment, it is critical that an effective cleaning plan be implemented. The spores are very resistant to most cleaners, however, bleach diluted to 1:10 with water or enilconazole (0.2%) will kill most of the organisms. All grooming tools, bedding, and kennels should be thoroughly cleaned and disinfected. Carpet should be disinfected. Heating and cooling ducts and furnaces should be professionally vacuumed and filters replaced. Furniture and drapes should be vacuumed and the vacuum cleaner bags should be disposed of promptly. These cleaning measures will need to be continued during the duration of the treatment and for several weeks afterward. Clothes of the owners may also harbor spores, and should be washed thoroughly.

Is ringworm transmissible to people?

Yes. Ringworm can be transmitted between rabbits, guinea pigs, and people. Persons with suppressed immune systems, such as those with HIV infections or AIDS, and those undergoing chemotherapy may be especially vulnerable. Persons should wear gloves when handling affected animals and wash hands well afterwards.

