QUEENSLAND MUSEUM

RINGWORM

FACT SHEET



Q26-027

Queensland Government

WHAT IS RINGWORM?

Ringworm, or tinea, is a common, contagious and usually harmless zoonotic fungal infection of the skin, hair and nails. It is caused by dermatophytes – fungi that need keratin to grow – of the genera *Microsporum* and *Trichophyton*. Ringworm produces a characteristic circular, red, scaly rash with a central clearing.

Despite its name, ringworm is not a worm but a fungus. The common name derives from the ring-shaped rash it causes.

Natural hosts

The reservoir animal depends on the pathogen species. The main species infecting humans and animals include:

- *Microsporum canis* from cats and dogs
- *Trichophyton mentagrophytes* from rodents and other animals
- Trichophyton verrucosum from cattle.

How is it spread?

The fungi produce spores that can survive in the environment for months to years. Animals, particularly cats, can be asymptomatic carriers, showing no signs of infection while shedding infectious spores. The fungus can spread through direct contact with fungal cells from infected skin, hair or fur, or through indirect contact with contaminated items or areas.

Cats can carry ringworm without showing any symptoms. They look healthy but can still infect people.

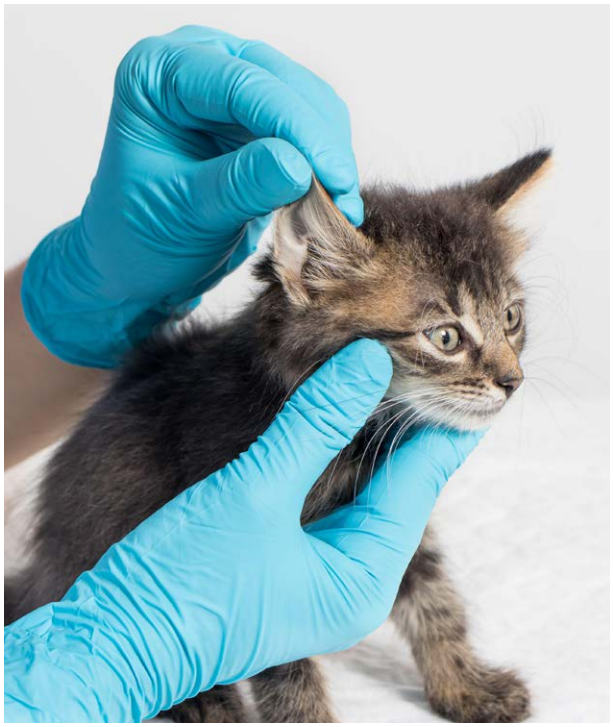
Direct transmission to humans can occur through:

- touching, petting, handling or grooming infected animals (e.g. cats, dogs, rabbits, guinea pigs, horses, cattle)
- skin-to-skin contact with infected people.

Indirect transmission to humans can occur through:

- touching objects contaminated with fungal spores (e.g. brushes, combs, bedding, furniture, carpets) from infected animals
- prolonged contact with contaminated soil where infected animals have been (spores can persist)
- sharing contaminated items (e.g. clothing, towels, bedding, sports equipment).

Ringworm spores can survive on surfaces for 12–18 months. Thorough cleaning is essential to prevent transmission.



Who is at risk?

- Vets and vet nurses, farmers, agricultural workers, abattoir workers, animal shelter staff, pest control workers, animal handlers, pet groomers and kennel workers.
- Pet owners, especially those with cats, dogs, rabbits or guinea pigs.

Kittens and puppies are common sources of infection. New pets should be checked by a vet.

What are the symptoms?

In animals

Symptoms in cats may include:

- circular patches of hair loss
- scaly or crusty skin
- broken hairs
- excessive grooming.

Many cats, especially long-haired breeds like Persians, are asymptomatic carriers, appearing completely healthy while shedding infectious spores.

Symptoms in dogs may include:

- circular patches of hair loss
- scaly or crusty skin
- inflammation
- secondary bacterial infections.

Puppies are more commonly affected than adult dogs.

Symptoms in cattle may include crusty, circular lesions, particularly on the head, neck and around the eyes. Calves are most commonly affected.

Horses with ringworm show circular patches of hair loss with scaly skin, often on the saddle and girth areas where equipment causes friction and breaks in the skin.

Infected rabbits and guinea pigs have patchy hair loss and scaly or crusty areas, particularly on the face, ears and paws.

Native Australian wildlife, including possums and bandicoots, can carry dermatophytes, though they are less commonly a source of human infection than domestic animals and livestock.

In humans

Some people may be exposed without developing visible infection, particularly those with previous exposure or strong immune responses. The infection has different names depending on where on the body it occurs.

Symptoms of tinea corporis (body ringworm) include the classic ring-shaped rash.

Symptoms of tinea capitis (scalp ringworm) may include:

- scaly patches on scalp
- hair loss
- broken hairs
- black dots where hairs break off.

Symptoms of tinea barbae (beard ringworm) may include:

- inflammation and pustules in the beard area
- itching
- multiple rash rings or merged rings
- blisters or pustules at the edge of lesions
- hair loss in affected areas.

Other presentations of tinea include tinea cruris (groin), tinea faciei (face), tinea manuum (hand), tinea pedis (foot) and tinea unguium (nail).

The classic ring-shaped rash doesn't always appear. Some infections look like irregular scaly patches.

Although ringworm is usually harmless, it can cause severe infections in immunocompromised people.

How can I prevent infection?

Currently, no vaccine is available for ringworm in humans or animals. Prevention focuses on hygiene and avoiding contact with infected animals or people.

Prevention measures include:

- Wash hands after touching animals, especially before touching your face.
- Have new pets examined by a vet before bringing them home.
- Isolate and treat infected animals promptly.
- Clean and disinfect surfaces, bedding and grooming tools that have been in contact with infected animals using diluted bleach or antifungal cleaners.
- Vacuum frequently and dispose of vacuum bags regularly to remove fungal spores.
- Avoid sharing personal items (e.g. towels, clothing, combs, brushes).
- Keep skin clean and dry (fungi thrive in warm, moist conditions).
- Wear personal protective clothing (PPE) when handling infected animals.
- Treat all animals in the household if one is infected.

Bleach solution (1:10 dilution) kills ringworm spores on surfaces. Regular cleaning is essential during outbreaks.

What treatments are available?

Treatment depends on the location and severity of infection. Mild cases on the skin can be treated with over-the-counter topical antifungal creams applied for 2–4 weeks. Scalp ringworm and severe or widespread infections require prescription oral antifungal medications taken for weeks or months.

Infected animals require treatment with antifungal medications and environmental decontamination to prevent reinfection and spread.

Treatment must continue for the full prescribed period, even if symptoms improve. Stopping treatment early can cause recurrence.

If you think you may have been exposed to ringworm, please contact your doctor or public health agency for further advice.

While most fungal conditions respond to antifungal medications, antifungal resistance (thought to be driven by inappropriate use of topical antifungal and corticosteroid medications) is an increasing concern. The World Health Organization considers antimicrobial resistance – including antifungal resistance – to be one of the most serious threats for global health.[1]

[1] Rohde RE (29 June 2023) 'Ringworm fungal infections are common in the US and are becoming increasingly resistant to treatment – 6 questions answered', *The Conversation*, accessed 15 April 2026.

Cover: Computer illustration of *Microsporum canis* fungus, a common cause of ringworm of the scalp. Courtesy: Alamy/ Science Photo Library
Page 2: A veterinarian examines a kitten's ear for signs of ringworm and parasites. Courtesy: Alamy

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