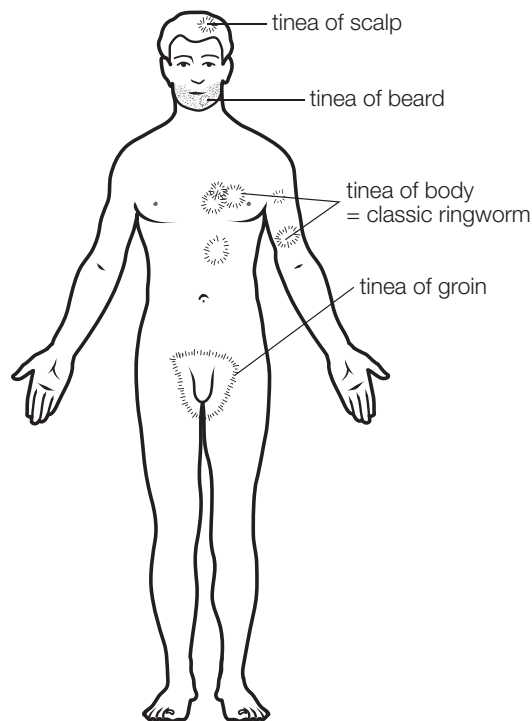


# Ringworm (tinea)

## What is ringworm?

Ringworm, which is also referred to as *tinea*, is a fungus infection of the skin. It causes a superficial infection of the surface layer (*keratin*) of the skin resulting in scaly itchy patches. The classic ringworm, of course, is the well-known red ring that is usually seen on the trunk of the body, but it can take on forms other than the 'ring'. The fungi are referred to as *dermatophytes* and there are three main types that infect the skin of humans.



## How is it transmitted?

The fungus is found almost everywhere and can be acquired from animals (*zoophilic*), from other humans (*anthropophilic*) and from the soil. In general, fungi transmitted from animals such as a pet cat or dog are more contagious and cause more severe inflammation of the skin. The guinea pig is a potent source of tinea of the face.

Person-to-person contact is a common mode of transmission. The fungi from infected people can contaminate objects such as towels, shoes, dressing-rooms or shower stalls, thus contact with these surfaces facilitates spread.

The risk is higher with:

- crowded living conditions
- day care centres or schools
- communal bathing areas
- close contact with animals.

## What are the various types of ringworm (tinea)?

- *Tinea of the scalp (tinea capitis)*: This causes patchy hair loss (bald patches) and scaling of the scalp. The

hair may break at the surface of the scalp producing a black dot appearance. It is usually seen in children and can be difficult to clear up. It is caused by *Microsporum canis* typically acquired from dogs and cats.

- *Tinea of the body (tinea corporis)*: This is the classic ringworm we are familiar with that appears on the trunk and limbs. It starts on the trunk as a small, round, red patch which is scaly and itchy. The patch gradually grows until it is about 25 mm (1 inch) across; as it gets bigger the central area heals, leaving a red ring on the skin at the edge. After a week or two, other patches may appear nearby and sometimes can spread quickly.
- *Tinea of the groin (tinea cruris)*: Also known as Dhobie itch and jock itch, this is a common infection of the groin area of young men, usually athletes.
- *Tinea of the feet (tinea pedis)*: This is the common tinea in the skin between the toes with smelly macerated scaling. It can extend onto the soles of the feet.
- *Tinea of the nails (tinea unguium)*: This can affect both toenails and fingernails causing thickened, discoloured crumbly nails with crusting at the free edge.
- *Tinea of the beard (tinea barbae)*: This may cause an itchy boggy swelling called a *kerion*.

The diagnosis is made by taking skin, hair or nail scrapings and performing microscopic examination and culture.

## What are the complications?

These include chronic nail infection with nail destruction, a pustular mass in hair called a *kerion* and secondary bacterial infection of the ringworm lesions such as cellulitis.

## What is the treatment?

Treatment is usually with topical medications such as clotrimazole or terbinafine applied twice daily for 4 weeks. There are a number of other preparations that can eliminate milder cases of tinea. Discuss treatment with your doctor. For more severe infections such as tinea of the scalp, beard and nails, medication taken by mouth is usually essential.

## Some rules of management

- Attend to personal body hygiene especially of the feet.
- Keep the skin dry.
- Have your pets with suspected ringworm checked by a veterinary surgeon (don't forget about guinea pigs).
- Keep a child with ringworm away from school until the condition clears.
- Keep infected hair and nails cut short.
- Infected people should not share headwear, towels, bed linen, combs or brushes.