



## Medicine for Managers

Dr Paul Lambden BSc MB BS BDS FDSRCS MRCS LRCP DRCOG MHSM

# Dermatophytosis

**Dermatophytosis is a commonly occurring clinical condition caused by a fungal infection. It affects humans but also pets such as dogs and cats and domesticated animals such as sheep, cows and goats. Its forms are better known as *ringworm* (although the name is misleading because it is not caused by a worm), *athlete's foot*, *jock-itch* and other less publishable names.**

Ringworm causes circular slightly raised red ring patches on the skin, commonly on the arms and legs but it can occur anywhere on the body.



The appearance is characteristic. The ring itself may show silvery or brownish elements and the skin around the margin of the ring looks inflamed. The skin within the ring usually looks quite healthy.

As the patch enlarges and the ring gets bigger, the normal skin area within gets larger. The expanding lesion has been fancifully described as appearing like a wave passing up the beach. About 15% of people

are estimated to have the ringworm during their lifetime.

The patches will normally be slightly itchy and, if scratched or otherwise irritated, they may become secondarily infected such that more red and painful areas may develop and blisters filled with pus may occur.

When they occur in hairy areas, such as in the beard area or on the scalp, the lesions may not appear like rings and there may be associated patchy hair loss.

Anyone can acquire ringworm but it is more common in the young (3-8 years), diabetic patients, the obese and those whose immunity is compromised (e.g. HIV or AIDS).

The fungus can be passed by contact between humans (particularly through contact sports, especially wrestling), between humans and animals (so stroking an infected dog or cat can result in transmission) and by contact with objects

such as towels, hair brushes or bed linen used by an infected person. Afro-Caribbean people seem more prone to the infection.

If a person acquires the infection and there are pets in the house, they should be inspected for any patchy hair loss.

Fungus thrives in areas such as school changing rooms where the lockers are kept, and in swimming pools and similar areas. (A common mantra was that fungus likes areas to be warm, moist and protected; therefore keep areas like the groin, armpits and other areas where skin contacts skin cold, dry and unprotected).

In such areas personal hygiene is sometimes a casualty. Sharing clothes, towels, sports equipment and boots risks transmission. Ideally protective footwear should be used in locker rooms

It is normally easily treated by the use of antifungal creams (miconazole or clotrimazole for instance).

An antifungal shampoo (such as ketoconazole) should be used if the scalp is involved. In some cases, particularly with the scalp, the treatment will also include anti-fungal tablets and the most commonly used medication is *terbinafine*. If the areas have become infected with bacteria an antibiotic topically or by mouth will be necessary.

Different species of fungus may be implicated in the condition and the most common causative agents are *Trichophyton* and *Microsporum*. Other forms of fungal skin infection are described using Latin names which describe the disease pattern rather than the nature of the organism that caused them. Thus, the other forms, based on the part of the body affected which commonly occur are:

*Tinea corporis* (L-body) – ringworm - which is the form affecting the trunk and limbs.



*Tinea cruris* (L-leg) affects the groin area and is common in young men and may be aggravated by activities that cause sweating.



In addition to routine treatment it is advisable to allow the air to get to the skin to keep it dry, by wearing loose fitting

underwear (boxer shorts rather than Y-fronts in men) and when at home discarding underwear and wearing a dressing gown.

*Tinea capitis* (L-head) is scalp ringworm as above. It is treated with anti-fungal



Shampoo and with tablets of terbinafine or, less commonly, the antifungal griseofulvin.

*Tinea unguium* (L-nail)



Fungal nail infections result in the nails becoming thickened, yellowed and broken, exposing areas of the nail bed. Up to one in five adults may have the problem at any one time. Treatment is with terbinafine tablets but the course may be prolonged because of the necessity to continue to take the medication until the affected nails have grown out.

Other areas identified by specific forms of *Tinea* infection include *Tinea manuum*

(hand), *Tinea barbae* (beard area) and *Tinea faciei* (facial area)

Ringworm has been recognised for a very long time and many treatments have been tried including iodine, mercury and sulphur. Like some other skin conditions, there was a period in the twentieth century when scalp ringworm, which was considered difficult to treat, was subjected to X-radiation followed by antiparasitic treatment.

Mercifully now, the condition is generally easily treated and resolution is normally achieved.

[paullambden@compuserve.com](mailto:paullambden@compuserve.com)