



Head to toe: Common fungal infections

By Sarah Park

Fungi are everywhere. They live indoors and outdoors, in public places, inside our bodies and even in our food. At times, our bodies can react to fungi causing skin irritations. In this article, you can learn more about the most common fungal skin infections.

“Athlete’s foot,” “ringworm” and “jock itch” are all common names for dermatophyte infections—where the fungus takes up residence in the skin, hair or nails. The fungi feed on keratin and thrive in warm, moist environments. While not usually serious, these infections can be itchy and uncomfortable, and are highly contagious. Furthermore, complications can arise, including bacterial infection or hair loss in the affected area.

Tinea pedis

Tinea pedis is a dermatophyte infection of the foot that is commonly referred to as “athlete’s foot.” The rash frequently appears as scaling, red areas between the toes that can

cause itching or burning. Because dermatophytes favour heat and moisture, foot fungal infections are often acquired after walking on contaminated surfaces in public showers and pools. In addition, sweating in tight footwear can help to incubate and grow the fungi—so keep feet, socks and shoes dry.

Tinea unguium

Tinea unguium, often referred to as onychomycosis, is the medical term for dermatophyte infection of the nails. Fungal infections of the nails look different to those of the skin. They appear as a white, yellow or brown discolouration that usually starts at the end of the nail of the big toe and spreads towards the cuticle. The nail might also thicken or separate from the nail bed. Tinea unguium can be spread in the same manner as tinea pedis, or from other modes of contact such as infected pedicure tools.



Tinea cruris

“Jock itch” is a tinea infection of the groin that can also spread to the inner thighs and buttocks. The infection can occur in men and women, but has earned its nickname by being commonly seen in men who wear tight clothing, which allows the fungi to incubate and thrive. Prevention methods include wearing dry, breathable undergarments and using clean towels.


Tinea corporis

Tinea corporis, or “ringworm,” refers to any affected area other than the feet, hands, groin or face. The name “ringworm” is misleading as the infection has nothing to do with worms. There is typically scaling or blistering of the area, with a slightly raised border. It often appears as a ring-shaped, scaly rash with a clear centre, and may be acquired via contact with an infected dog or cat. Dermatophyte infections are contagious and easily spread from one location to another.

Diagnosis and treatment

Your physician will inspect the area and, if tinea is suspected, will typically conduct potassium hydroxide (KOH) testing. If the diagnosis remains unclear then additional testing might be needed, such as a cell culture or Wood’s lamp examination.

Antifungals are the best way to treat a dermatophyte infection. Applying a topical agent will often suffice, but oral antifungals will be needed if the condition is severe, widespread or resistant to prior treatments. Make sure to adhere to the treatment plan.

If you suspect a fungal infection, do not let the condition become chronic—visit your physician. 

Sarah Park, BSc, is a second-year medical student, and member of the Sun and Skin Awareness Program at the University of Toronto. She is also co-director of the University of Toronto Indigenous Health Elective.

Preventing fungal infections

- 1 Avoid sharing personal items.
- 2 Establish good skin, nail and hair hygiene.
- 3 Clean and sanitize anything contacting an affected area.
- 4 Avoid going barefoot in communal areas.
- 5 Wear loose-fitting, dry clothing and footwear.