

Fungal Infections of the Skin (Ringworm, Athlete's foot, Jock Itch)

Fungal infections are skin infections caused by a family of fungi. The most common types include:

- Ringworm of the body (Tinea Corporis)
 - Ringworm of the scalp (Tinea Capitis)
 - Athlete's foot (Tinea Pedis)
 - Jock itch (Tinea Cruris)

Transmission

Fungal infections can affect anyone and can be contracted more than once. They can be spread through:

- **Person to person.** Direct, skin-to-skin contact with an infected person.
- **Animal to person.** Touching an animal with ringworm.
 - Found in large animals (cows, goats, pigs, and horses) & household pets (cats and dogs.)
- **Environment to person.** Spread by contact with objects such as personal items, clothing, towels, bedding, linens, and hairbrushes. Rarely, fungal infections can be spread through infected soil.

Risk Factors:

Ringworm

- Those who work around animals and livestock
- More commonly found in children

Athlete's Foot

- People who frequently use public showers and locker rooms, such as gymnasiums and fitness centers

Jock Itch

- Men who wear tight-fitting clothing

The duration of time that fungal infections of the skin can be spread depend on the severity of the illness, the type of infection and the course of treatment. Discuss with your health care provider to determine when you are no longer contagious.

Symptoms

Extreme itching is a common side effect of fungal infections. Other symptoms that may occur depending on the cause:

Ringworm

- Red scaly patches on areas of the skin that are not hairy
 - Symptoms usually occur in 1-3 weeks but can be as little as 3 days

Athlete's Foot

- Cracking of the feet, especially around and between the toes
 - The incubation period is unknown but is thought to be 1-3 weeks after an exposure

Jock Itch

- Scaly, itchy, red spots, usually on the inner sides of the skin folds on the thigh
 - The incubation period is unknown but is thought to be 1-3 weeks after an exposure

Diagnosis

Consult your health care provider for a diagnosis. This will be done via a visual inspection or through laboratory tests.

Treatment

Treatment for fungal infections, such as ringworm of the body, athlete's foot, and jock itch, depends on the type of fungal infection and its severity. These factors also affect the length of treatment. Treatment may include:

- **"Over-the-Counter" medications**- (non-prescription medications) that can be applied to the skin
 - Often in the form of creams, lotions or powders
- **Prescription antifungal medications**
 - Ringworm of the scalp can only be treated with prescription antifungal medications

For more information about the treatment of fungal infection, contact your health care provider or visit [Ringworm Treatment| CDC](#).

Prevention

- **Wash your hands** before and after touching the infected area
- **Clean the infected area**
- **Receive early intervention and treatment**
- **Prevent direct contact** with skin lesions
- **Practice good hygiene**
- **Avoid public areas** such as swimming pools, gyms, and showers

Exclusion Guidance

Individuals with fungal infections should not be excluded from work, school, or child care.

- Exclusion and treatment of children with ringworm in child care and school can occur at the end of the day with return the following day after their first treatment.
- When possible, the affected area should be covered.
- Athletes can compete in matches 72 hours after starting treatment and covering the affected area.
- People with fungal infections should be excluded from activities that may expose others, such as using swimming pools, showers, and towels at public gyms.

For additional information about fungal infections, contact the North Dakota Department of Health and Human Services', Division of Public Health, at 800.472.2180.

Resources:

1. Center for Disease Control and Prevention. (2020, December 29). *CDC- Ring Worm*. Center for Disease Control and Prevention. Retrieved April 21, 2023, from <https://cdc.gov/fungal/diseases/ringworm/index.html>.
2. Heymann, D. L. (2015). *Control of Communicable Diseases Manual*, 21st Edition. American Public Health Association. [Fungal Infections of the hair, skin, and nails] [pages 233-239].
3. Kimberlin, D. W., Barnett, E. D., Lynfield, R. Sawyer, M. H. (2021) *Red Book: 2021-2024 Report of the Committee on Infectious Diseases 31st ed.* American Academy of Pediatrics [Tinea Corporis (Ringworm of the Body), Tinea Cruris (Jock Itch), Tinea Pedis and Tinea Unguium (Onychomycosis) (Athlete's Foot, Ringworm of the Feet)] [pages 759-766].

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