

## **RINGWORM INFORMATION AND CONTROL MEASURES**

### **What is ringworm?**

Ringworm is a common skin infection caused by a fungus. Ringworm may affect the skin on the body, scalp, groin area (jock itch), feet (athlete's foot) or nails. The infection is **not** related to an infestation of worms. Ringworm occurs when a particular fungus grows and multiplies anywhere on the body. Ringworm can affect anyone at any time due to the microscopic organisms that live off the dead outer layer of skin. Symptoms may not appear for 10-14 days after contact.

### **How is ringworm detected?**

Ringworm is detected primarily based on the appearance of the skin. A scraping or culture of the affected area may be done by your doctor.

Ringworm is recognized by:

- Itchy, red, raised, scaly patches that may blister and ooze. The patches often have sharply-defined edges. They are often redder around the outside with normal skin tone in the center. This may create the appearance of a ring. The skin may also appear unusually dark or light.
- Round, scaly patches with broken off hairs or bald patches in the scalp or beard if infected.
- Nails that become discolored, thick and crumble if infected.

### **How is ringworm spread?**

Ringworm is easily transmitted through direct contact with infected lesions or articles contaminated by the infected lesions. It is contagious until treatment is started.

**RINGWORM OF THE BODY:** Ring worm of the body is a shallow fungal disease of the skin other than of the scalp, bearded areas or feet. It usually appears as a flat, spreading ring-shaped lesion. The lesion is usually reddish in the outer edges of the ring and may be dry and scaly or moist and crusted. As the outer ring spreads, the central area often clears, leaving apparently normal skin. Most lesions are less than 2 inches across and they may appear alone or in groups of 3-4. The lesions are usually found on the trunk, legs, arms, neck, and face.

Ringworm of the body is transmitted by contact with skin and scalp lesions of the infected persons, lesions of animals (especially dogs, cats, horses and other farm animals), contaminated floors, shower stalls, benches and other articles used by infected persons.

**RINGWORM OF THE SCALP:** The first observable signs of ringworm of the scalp are usually round, scaly patches with broken off hairs. Infected hairs may become brittle and break off or fall out easily. Occasionally, the lesions are raised and draining.

The disease is spread by direct skin-to-skin or indirect contact especially from combs, brushes, barber clippers, towels, hats, or clothing contaminated with hair from infected persons or animals.

**RINGWORM OF THE FOOT (ATHLETE'S FOOT):** Ringworm of the foot is usually identified by scaling or cracking of the skin, especially between the toes, or blisters containing a thin watery fluid. Infections are more frequent in hot weather.

Ringworm of the foot is transmitted by direct or indirect contact with skin lesions of infected persons or contaminated floors, shower stalls, and other articles used by infected persons.

## Case Findings – Administrative Procedures for Ringworm

When a faculty member suspects the presence of a suspicious rash the student should be referred to the school nurse.

- The school nurse will confirm the presence of suspected ringworm. If there should be difficulty in identifying the presence of ringworm, the school nurse should refer the student to their doctor.
- The school nurse will assist with proper washing of all lesions with soap and water. Lesions should be covered while in school.
- If the lesions can not be covered due to the age, developmental level of the student or location on the body, the student should be excluded from school until treatment has started. The option of wearing a hat in school for scalp lesions will be evaluated on an individual basis.
- The school nurse will keep a written record of suspected cases, listing names, date the infection was suspected, date treatment started, date the student returned to school and teacher's name.
- The school nurse will notify the parent or guardian and provide *Letter to Parent/Guardian* with a copy of *Management Options and Control Measures for Ringworm*.
- If a student returns to school without treatment, the school nurse will notify parent/guardian to take the student home and follow the *Management Options and Control Measures for Ringworm*.
- If the student has not been satisfactorily treated for ringworm, the school nurse will notify the consulting nurse and administrator. The consulting nurse will assess the need for further education and may recommend a school social worker referral.

## Control Measures for Ringworm

- Hand washing and cleaning under the nails is very important.
- Soiled bandages should be placed in a plastic bag for proper disposal.
- Combs, brushes, towels, hats, coats, bedding and other personal articles should not be shared.
- Recommend to parent/guardian examination of household contacts, pets and farm animals for evidence of infection and seek effective treatment if found.
- Classrooms, showers and dressing rooms of gymnasiums should be routinely cleaned with school approved cleaning agents.
- Launder towels and clothing in hot water and laundry detergent.

## Management Options for Ringworm

RINGWORM OF THE BODY: Contact your private physician and follow his/her instructions. The following management options may be recommended by a licensed healthcare provider:

- Wash all lesions thoroughly with soap and water. Pat dry with a clean soft towel before applying medication.
- Apply an antifungal cream, liquid or powder (i.e. Lamisil, Lotrimin, Tinactin, Desenex etc.) to the affected area according to directions on the label. Antifungal medications may be obtained from the pharmacy without a prescription. Using an antifungal medication on the area twice a day for 2 to 3 weeks is usually adequate. Continue using the medication for 1 week after the ringworm patch is smooth and appears to be gone.
- Students may return to school after management options has been initiated. All lesions should be covered while the student is in school.

RINGWORM OF THE SCALP: See a licensed health care provider and follow his/her instructions.

- Possible ringworm of the scalp must be evaluated by a licensed health care provider and a note from a licensed health care provider is required to return to school. Over the counter antifungal creams, lotions or shampoos are usually not an effective treatment for ringworm of the scalp when used alone.
- Ringworm of the scalp usually requires several weeks of an oral antifungal medication.
- The option of wearing a hat in school for scalp lesions will be evaluated on an individual basis.

RINGWORM OF THE FOOT (ATHLETE'S FOOT): Contact your private physician and follow his/her instructions. The following management options may be recommended:

- Wash feet thoroughly with soap and water. Pat dry with clean soft towel before applying medication.
- Apply an antifungal cream, liquid or powder (i.e. Lamisil, Lotrimin, Tinactin, Desenex etc.) to the affected area according to directions on the label. Antifungal medications may be obtained from the pharmacy without a prescription. Using an antifungal medication twice a day for 2 to 3 weeks is usually adequate. Continue treatment for 1 week after the infected area is smooth and lesions appear to be gone.
- Socks should be changed daily and washed in hot water.
- Thorough cleaning of bath tub or shower after each use is essential in preventing transmission of infection to other members of the household.

References:

Medline Plus® [www.nlm.nih.gov/medlineplus/print/ency/article/001439.htm](http://www.nlm.nih.gov/medlineplus/print/ency/article/001439.htm)

CDC [www.cdc.gov/healthypets/diseases/ringworm.htm](http://www.cdc.gov/healthypets/diseases/ringworm.htm)

DeStefano Lewis, Keeta, and B. J. Partee. Manual of School Health 2<sup>nd</sup> Edition. Missouri: Saunders, 2002.

Georgia School Health Resource Manual (2004). *Ringworm of the Skin and Scalp*. Chapter 4, (page 216). Communicable Diseases and Infection Control.