

Class Starters & Enders

Making the Most of Instructional Time Five Minute Lessons

Class Starters and Enders help utilize the last minutes of class when a lesson ends but there is not enough time to start another, or for an interest approach at the beginning of class. Mini-lessons correlate to GPS in the programs areas below.

Ringworm

Program Areas: Healthcare and Veterinary Science

Instructions: Read the material and make notes of important points, answer questions, and be ready to discuss this topic.

Worms are found in the ground, on fishing hooks, and some even on your skin. What many people do not know, however, is that ringworm is not actually a worm at all.

Ringworm (Dermatophytosis) is a highly contagious condition caused by fungal infections of the skin of humans and some animals. Although it can be caused by several species of fungus, each type of **parasitic** fungus feeds on keratin. **Keratin** is a type of protein that is found in the outer layer of skin, hair, and nails. It can be easily spread by contact with infected areas on another person or animal. It can be transmitted to a new host by clothing, or even objects such as desks and chair cushions.



This man has a type of ringworm known as *Tinea faciei* — facial fungus

Ringworm has been recognized since the 1800s. In early times, with a lack of knowledge and medical care, ringworm spread quickly from person to person. Poor sanitation was a major factor. In the early 1900s, the condition was treated with mercury, sulfur, or iodine. Since hairy areas were difficult to treat, x-ray radiation was often used on the scalp and head. However, exposure to high levels of x-rays proved to be fatal to many of the patients. It is estimated that in current times, up to twenty percent of the population is infected by ringworm or similar at any one time.

It is particularly common among athletes, especially wrestlers and grapplers. Competitors with ringworm may be disqualified from events due to the highly contagious nature of the infection. Another species of fungus causes **athlete's foot**, and yet another causes **jock itch**.

Ringworm infections may give rise to typical enlarging raised red rings. If nails are infected, they may thicken, discolor, and finally crumble and fall off. Animals such as cats, dogs, and farm animals are known to suffer from ringworm as well. The fungus causes hair to become brittle and break off, producing a circular bald patchy area.

Treatment of fungal infections is usually simple. Several types of **topical** treatment creams and sprays may be purchased **over the counter**. The infection usually dissipates within a week or two. Rarely, **systemic** treatments using oral medication may be required. The best prevention is basic hygiene—washing thoroughly, not sharing clothing with infected people and avoiding skin contact with infected people and animals.

Review

1. What causes ringworm?
2. What does the ringworm fungus feed on?
3. Describe how ringworm looks on the skin
4. What were three treatments used in the 1800s?
5. Why was x-ray treatment for ringworm a bad idea?
6. Why is ringworm common among athletes?
7. What other skin diseases are caused by a fungus?
8. What ringworm treatments are used today?

Language Connection

Define the following terms.

Dermatophytosis	Parasitic	Keratin
Topical	Systemic	Athlete's Foot
Jock Itch	Ringworm	Over the Counter

Math Connection

The population of the US is 307,000,000. How many currently have ringworm or a similar skin condition?

Science Connection

Research types of fungal infections. Select one and prepare a one page report. Include causes, symptoms, and treatment of the infection.