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Understanding Fungal Skin Infections

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When you hear the word *fungus*, you may think of mushrooms growing on a wet tree trunk, mold on old bread, or mildew at the back of the refrigerator. These are perhaps the most well-known forms of *fungi* (more than one fungus), but did you know that there are up to 1.5 million species of fungi, approximately 300 of which can cause illness in people?

Is There a Fungus Among Us?

Fungi in the form of yeast, mold, or mildew are found just about everywhere, including in the air, in soil, on plants and trees and in water. Some types live on the human skin. Fungi thrive in cool moist areas like the basement and in between walls.

Fungi grow by shedding tiny spores (think of plant seeds) in the air. These spores can land on your skin or you can inhale them. There are higher concentrations of fungal spores in the air in certain locations that are moist, cool and dark, such as a construction or demolition sites, old barns, or dark caves.

What's a Fungal Infection?

Since fungi can be inhaled or live on your skin, fungal infections can occur in the lungs or on the skin. Most infections, however, do not go beyond the skin, and are termed “superficial.” These superficial fungal infections can affect areas like nails, skin and hair, and might include athlete’s foot or vaginal yeast infections. Fungal skin infections are generally harmless, and can be treated with medication.

It’s important to note that most people can breathe in fungal spores without getting an infection; however, those with weakened immune systems or lung disease can more easily develop fungal infections in the lung, blood or other organs including the sinuses, liver, spleen, and brain. Examples of people with weakened immune systems include those with HIV/AIDS or cancer, who are hospitalized, or are taking medications that suppress the immune system (e.g., steroids or chemotherapy). Fungal infections of the blood, lung or other organ are called “systemic” infections and are generally more serious than superficial infections.

Common Fungal Skin Infections

Tinea is a common group of fungal skin infections that can affect areas such as the feet, groin and scalp. *Tinea* infections are easily spread from person to person, from touching someone who has the infection or by touching surfaces where the fungus is present (e.g., shower floors, areas around swimming pools, and locker rooms). Some fungal infections are caused by a type of yeast, *Candida*. It can affect areas such as the skin, mouth, throat, and genitals. It especially occurs in areas where it is warm and moist, including the armpits, under the breasts, behind the knees, and the groin.

Here are some common superficial fungal infections:

- **Oral thrush:** a yeast infection that causes white patches in the mouth or throat.
- **Vaginal yeast infection:** an itchy infection of the vagina that can cause white cottage-cheese like discharge.
- **Diaper rash:** a fungal infection that infects the skin on a baby’s bottom causing red irritation usually due to warm and moist conditions inside the diaper.
- **Athlete’s foot:** a fungal infection on the skin of the feet, especially between the toes.
- **Jock itch:** an infection that occurs on the groin or upper thigh.
- **Nail infection:** a fungal infection of the fingernails or toenails. The nails become thick, yellow or white in color and are more prone to crack or break.

Superficial yeast and fungal infections are generally not a serious problem in healthy people, but they can occur easily in anyone, and can be very annoying. To learn about the different types of fungal infections, please visit the websites below under *Take the Next Step*.

Treating Fungal Infections

If you aren’t sure if your skin condition is due to a fungal infection, consult your healthcare provider. Your doctor or pharmacist can recommend over-the-counter antifungal treatments (usually ointment or cream). But know that prescription treatments (ointment, cream or medicines you take by mouth) may be needed to treat stubborn fungal or yeast infections. If you have or think you may have a fungal infection, be sure to see your doctor and/or pharmacist.

What You Can Do To Prevent Superficial Infections

Anyone can get a fungal infection, especially people with weakened immune systems. Moist, unclean, cool and unaired areas on our body can become fertile ground to develop superficial fungal infection. This may include your toenails. It’s good to know what to do to prevent them.

Here are some things you can do to prevent fungal infections from recurring:

- **Maintain good overall hygiene, including oral hygiene** (to help prevent thrush). Keep your skin clean and dry
- **Keep your feet clean, cool and dry.** Wear clean socks and change them daily. Wear shoes that allow your feet to "breathe"
- **Do not walk barefoot in public places,** such as showers or gym locker rooms
- **Trim your fingernails and toenails** to keep them clean and short
- **Wash your hands after touching people or animals.** Fungal infections are contagious
- **If you think your pet has ringworm, have your veterinarian check for and treat the condition**

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