

## Tinea (Skin Fungus)

Tinea is the name given to a fungal skin infection. Most people will develop some resistance to skin fungus after being infected. Others appear to have a susceptibility to fungal infections. Sometimes the susceptibility will run in the family.

### **Tinea pedis (Athlete's Foot)**

This is the commonest type of fungal infection. It is the most common and most stubborn cause of tinea pedis and only affects humans. It is spread by direct contact, most often through bare feet in bathrooms and health clubs. Leather or plastic footwear that doesn't "breathe" encourages tinea pedis. It is rare in children. In most cases, the skin becomes white, soft and peels away between the toes (especially between the fourth and little toes). It may infect the sole of the foot resulting in peeling, scaling, itching and sometimes blistering. Only one or both feet may be involved.

### **Onychomycosis (Tinea Ungium of the nail)**

Toe nail infection is usually associated with tinea pedis. It is very difficult to eradicate. Often the great toenail is the first to show signs, especially if it has been injured. The nail yellows, and after years thickens and breaks easily. Finger nail infections are similar, but less common.

### **Tinea cruris (Jock itch)**

Some subjects with tinea pedis also develop a rash in the groin (tinea cruris), especially if they tend to sweat a lot. It is common and affects men more often than women. It has an itchy spreading red border.

### **Tinea corporis (ringworm)**

Tinea corporis may be spread from person to person, from contact with an infected cat, most often a kitten, or from exposure to fungus in the soil. Itchy red scaly patches come up anywhere the cat has rubbed. They often develop into a ring. This kind of tinea usually clears up with appropriate creams. If due to a cat, even if the cat has no signs of a skin problem it will need treatment too.

Trichophyton verrucosum is a cattle ringworm and infects farmers. It arises on exposed skin as an inflamed red patch studded with pustules.

### **Tinea capitis (scalp ringworm)**

Tinea capitis usually occurs mostly in children and results in scaling and patchy hair loss. It is epidemic in many african-american communities. The scalp can look quite moth-eaten but with the right treatment the hair will grow back normally and will not result in permanent hair loss.

An exception may be a kerion; this is a very inflammatory tinea of the scalp and looks like a boil or abscess. It is hard to immediately confirm that the symptoms are due to tinea infection and to establish the identity of the infecting organism. This is treated with prednisone to prevent permanent hair loss.

### **Treatment**

Tinea infections can be treated by a variety of different medications. For tinea Pedis, Cruis and Corporis creams such as Lamisil-AT and Micatin AF can be bought over the counter at a pharmacy. Prescription creams are stronger, faster and require fewer applications. Sometimes oral medications are necessary. These are very effective, and include Griseofulvin (Grispeg, Fulvicin), Lamisil (Terbinafine), Sporonox (Itraconazole), and Diflucan (Fluconazole). Tinea Capitis, Tinea unguium and chronic tinea pedis are difficult to eradicate completely and require oral treatment.

## **Prevention**

People with tinea pedis should discourage further growth of the fungus by keeping their feet as dry as possible. Wear open-toed sandals whenever possible, avoid boots, dry carefully after washing, and use an antifungal foot powder (Zeasorb-AF) daily. See “recurrent fungal infections.”

## **Tinea Versicolor**

Tinea versicolor is caused by a different type of skin fungus. In this infection, overgrowth of a yeast-like germ present on normal skin is the cause. If the skin is oily enough, warm enough and moist enough, it starts to grow into small “colonies” on the surface of the skin. In these colonies the yeast grows like crazy and leaks out an acidic bleach. This changes the skin color. The patches are lightly reddish brown on very pale skin but they don’t tan. Because of lack of any tanning, they look like white spots on darker or tanned skin. This is most often seen on the neck, upper chest, upper arms and back. There may be a fine, dry scale on it.

Usually the infection produces few symptoms, but some people get itching, especially when sweating. The warmer the weather, the worse this condition gets. Tanning booths are warm places, so avoid them. The reasons why some get this problem and others do not are not known.

This infection can easily be recognized by a dermatologist, but occasionally it can be mistaken for vitiligo, pityriasis or other skin conditions. If there is any doubt, a “KOH prep,” a test done quickly in the office will confirm the diagnosis.

The infection is treated with either topical or oral medications. In very mild cases, non-prescription antifungal creams (Lotrimin-AF, Micatin) will work. Prescription antifungal lotions and sprays (Oxistat lotion, Lamisil spray) may work better. The most economical effective treatment is to apply antifungal shampoo (Nizoral, Excel) to the body as if it were soap, but leave it on for some minutes before washing.

For severe, extensive or recurrent cases, a few tablets of Nizoral pills will clear things up. A newer pill, Sporonox, may replace Nizoral for this problem. These will all eliminate the fungus and relive any itch and scale. The uneven color of the skin will remain several months, perhaps until you get a tan again in the next summer.

Remember, since we all have some of this fungus, so no treatment can prevent you from picking it up again forever. In many people, the rash reappears for the next few years. To prevent recurrence, preventative re-treatment with the same medication may be advised. We don’t often see this condition beyond mid-life, so rest assured it won’t keep coming back forever.