

TOENAIL FUNGUS – ONYCHOMYCOSIS

What Is It?

Toenail fungus is a condition that disfigures and sometimes destroys the nail. It is also called onychomycosis.

Toenail fungus can be caused by several different types of fungi. Fungi are microscopic organisms related to mold and mildew.

These fungi thrive in the dark, moist and stuffy environment inside shoes. As they grow, fungi feed on keratin. Keratin is the protein that makes up the hard surface of the toenails.

Factors that increase the risk of developing toenail fungus include:

- Wearing tight-fitting shoes or tight hosiery
- Practicing poor foot hygiene
- Wearing layers of toenail polish, which doesn't allow the nail to breathe
- Being a military personnel, athlete or miner. This is because toenail fungi may spread from foot to foot on the floors of showers and locker rooms.
- Having a chronic illnesses, such as diabetes or autoimmune disorders
- Having a circulatory problem that decreases blood flow to the toes

However, many people with toenail fungus have no clear risk factors.

Toenails on the big toe and little toe are the most likely to develop a toenail fungus. This may be partly because the big toe and little toe are constantly exposed to friction from the sides of shoes.

Symptoms

When a toenail develops a fungal infection, it typically turns yellow or brown. It becomes thick and overgrown. Foul-smelling debris also may accumulate under the nail.

As the infection continues, the nail may crumble gradually and fall off. Or, it may become so thick that the affected toe feels uncomfortable or painful inside shoes.

A less common variety of toenail fungus is called white superficial onychomycosis. The nail turns white rather than yellow or brown. The surface becomes soft, dry and powdery.

Diagnosis

You will describe your foot symptoms to your doctor. He or she will ask about any factors that may increase your risk of toenail fungus. These include:

- A high-risk occupation
- Sports participation
- Tight-fitting shoes or hosiery
- Poor foot hygiene
- Use of heavy toenail polish
- A history of illness that may decrease your resistance to infection or interfere with blood flow to your toes. These include:
 - Poor circulation
 - Diabetes
 - Autoimmune disorders

A skin disease called psoriasis sometimes can cause nail problems that look similar to a fungal infection. As a result, your doctor may ask whether you or a family member has psoriasis. It is possible for psoriasis and a fungal infection to affect the same toenail.

Your doctor will examine your affected toenail or toenails. Often the diagnosis can be made based on the appearance of toenails. Your doctor may take small samples of the affected nails. These samples will be sent to a laboratory where they are tested for fungi and other infectious agents.

Expected Duration

Toenail fungus rarely heals on its own. It is usually a chronic (long-lasting) condition. It can gradually worsen to involve more and more of the nail. Even if the affected nail comes off, the new nail may be infected with fungus.

Prevention

To help to prevent toenail fungus:

- Wear comfortable shoes and hosiery that allow your feet some breathing space.
- Wear shoes, sandals or flip-flops in community showers or locker rooms.
- Wash your feet every day. Dry them thoroughly, and use a good-quality foot powder.
- Wear clean socks or stockings every day.
- Keep your toenails trimmed.
- Disinfect pedicure tools before you use them.

Treatment

Treatment may begin with your doctor removing as much of the infected nail as possible. This can be done by:

- Trimming the nail with clippers
- Filing it down
- Topical antifungal medication

If the infection is mild and limited to a small area of your nail, your doctor may prescribe an antifungal cream or a medicated nail polish.

If the infection is in a wider area of your nail, or several nails, your doctor may prescribe an oral antifungal medication. Oral terbinafine (Lamisil) is often prescribed after a blood test to evaluate the liver.

In very severe cases, when toenail fungus is resistant to treatment, it may be necessary to remove the entire nail surgically.

Prognosis

Most people treated with an oral antifungal medicine are cured after a few months of therapy. However, even after the fungus is dead, the nail may never become clear and normal-looking.

The fungus returns in some people even after successful treatment with an oral antifungal medication.