

FUNGAL TOENAILS & ATHLETES FOOT

Precisionfootandankle.com

Eric M. Feit, DPM Alona Kashanian, DPM Pooya Lashkari, DPM

Toenail fungus is an infection that results when a yeast-like fungus (the same organism that cause's athlete's foot) grows under and within the toenail. The nail turns yellow to brown in color, and begins to thicken. This process is usually not painful. However, shoe pressure on very thick nails may cause pain. The nail can change shape due to the fungus, becoming more curved on the sides, and result in pinched or ingrown edges.

Treatment Options

Once the fungus becomes well established under the toenail, it is very difficult to completely cure. It is nearly impossible to regenerate a normal nail once the nail is markedly thickened or abnormally shaped. Nevertheless, there are a number of methods to address this condition.

- 1) **Periodic Nail Trimming, Filing and/or Grinding.** This is the best method for painfree nails with widespread fungal infection. To prevent the nails from becoming painful, keep them well trimmed and thinned. Routine nail care can be combined with regular applications of topical antifungal medication. These topical medicines rarely cure fungal toenails, but may help to control fungal infections from spreadin to adjacent nails and skin. Note: Routine nail care is not a covered benefit with most insurance plans unless you are diabetic or have severe circulation problems.
- 2) **Topical Anitfungal Medication. Jublia and Kerydin** are the most effective topical medications. They use a new antifungal ingredient and do not have an odor. Main ingredient is 10% Efinaconazole for Jublia and 5% Tavaborole for Kerydin.. It is applied once a day. It is a prescription medication and is covered if you do not have Medicare. It will require 6 months of treatment. It is often a cheaper copay if you use a special pharmacy that we work with that mails the item to your home.
Formula 3—Is an alternative product which is oil based tolnaftate and is applied twice a day. It is available in our office for \$40 Formula 3 covers fungus and yeast.
Dr. Remedy is a topical nail polish that helps to kill fungus and prevent the spread of the infection. It comes in different colors. Main ingredient is tea tree oil. The cost is \$18 a bottle and can be purchased in a doctors office.
- 3) **Oral Anti-Fungal Medications.** This method is typically effective in greater than 75% of cases. The medicine is either taken one pill every day for 3 months, or two pills for seven days in a row followed by three weeks of rest (repeated over 4 month period). The medication has occasional side effects in less than 10% of patients. These include liver toxicity, headaches, changes in blood pressure, skin lesions and loss of taste. These side effects are reversible if the medicine is stopped abruptly. These medications are now generic but may require prior authorization and a fungal culture.
- 4) **Permanent Nail Removal.**This method eliminates the problem of the abnormal nail by permanently removing or destroying the nail matrix (root), and preventing regrowth of the nail. The procedure is performed under local anesthesia and requires that there be adequate blood circulation to support healing. The recovery period is generally 4 to 6 weeks. The risks of the procedure include infection, prolonged recovery, and partial or full regrowth of the toenail. This method is reserved for nails that have not responded to other treatments and are symptomatic or painful. If the edge(s) of the nail is ingrown or pinching then just the edge(s) can be permanently removed.

How to Prevent Recurrence of Fungal Toenails or Athletes Foot

Even when the fungus is resolved, a recurrence can occur more than 50% of the time unless you make the following changes.

- 1) Do not wear a leather shoe or tennis shoe for more than 6 months. Fungus, Molds, and possibly Yeasts are growing inside. If you have old shoes throw them away.
- 2) Use an OTC fungal spray-powder (ie. **Lotrimin, Lamasil**) on your feet daily or an anti-fungal powder (**Lamasil or Zeasorb-AF**). Particularly after a shower or exercise.
- 3) Consider using **Clean Sweep Shoe Spray** in your leather or athletic shoes. It kills 99% of fungus, mold and bacteria which is likely to be growing in the shoe. Once a day or every other day is enough. There is no odor and no mess. This product is sold only in our office. The cost is \$15
- 4) Never wear wet socks or shoes. If you exercise put on sandals after you are done.
- 5) Use shower sandals, especially in public showers, gyms, and around swimming pools.
- 6) **Steri Shoe** uses a germicidal ultraviolet (UVC) light to kill the microorganisms inside of your shoe including fungus, molds, and bacteria. It also improves shoe odor. Place each steri shoe in your shoes at night. It will run for 45 minutes and then shut off automatically. The cost is \$130 a pair.

Athlete's Foot Treatment & Prevention

Athlete's foot (tinea pedis) is an infection of the skin on the feet. It is usually caused by fungus, but may be caused by a yeast or mold. Fungi, molds and yeasts are part of our natural environment, the infection is not related to foot cleanliness. It is not a bacterial or viral infection. Athlete's foot grows best in warm, dark, moist environments. (Like inside a closed shoe on a warm, sweaty foot.) Athlete's foot does not get better on its own. Once cracks or breaks in the skin occur, other problems, such as bacterial infections, can occur. Some people are genetically more likely to get fungal infections of the skin or nails. **IT CAN SPREAD TO OTHER PARTS OF THE BODY OR OTHER FEET.** Follow these tips for treating and preventing athlete's foot from returning:

Do:

- wash feet and carefully dry well before applying antifungal cream, gel or ointment
- use the medication as often as prescribed by the doctor, for the entire time prescribed, even if the skin looks better sooner, to clear all the layers of the skin.
- wash all socks in hot water and detergent (no Ivory snow, no Woolite)
- wash all washable shoes in hot water & detergent upon the start of treatment and then once a month thereafter until problem is cleared completely.
- use antifungal powder or spray (lamasil, lotrimin, or tineacide) as explained above at least 3 times a week.
- spritz the shower/tub floor with spray bottle after each use with a mix of 1 part bleach to 10 parts water.
- change socks daily
- allow shoes 24 hours to "air out" before re-wearing.
- use sunscreen on the feet if outdoors wearing sandals to "air" the feet.
- choose shoes with air vents or breathable materials like pig skin, or gore tex.

Don't:

- walk barefoot. If diabetic or circulation problems such as vascular disease, never barefoot, never socks only, never sandals only-unless prescribed for you by a physician. Healthy patients may walk in socks at home.
- use the washcloth or drying towel for the infected feet on any other part of your body.
- soak the feet unless directed by a physician.
- share foot care instruments with others.
- share shoes with others, do not wear patent leather or rubber closed shoes unless required by work
- wear obviously contaminated old shoes (example: smell "yeasty" or discolored)
- use public pools or hot tubs while infected.

