

## **ONYCHOMYCOSIS AND ATHLETE'S FOOT INFECTIONS**

*Onychomycosis* is a chronic fungal infection of the toenails. It is a common problem that can affect people of all ages, although it most commonly affects individuals who are older and/or immunocompromised. Some health conditions can increase susceptibility to developing onychomycosis, including diabetes, peripheral vascular disease, and the use of certain medications.

Toenail fungus often begins as an infection in the skin called *tinea pedis* (also known as athlete's foot). The fungus often starts under the nail fold at the end of the nail. Over time it grows underneath the nail and causes changes to its appearance, such as a yellow or brownish discoloration. It can also cause thickening and deformity of the toenail.

There are several ways to treat fungal toenail infections with varying degrees of success. Successful treatment of onychomycosis depends on the clinical type of the onychomycosis, the number of affected nails, and the severity of nail involvement. Current treatment options include:

1. Oral Antifungal Agents- These have a higher success rate but have been associated with elevated liver enzymes, thus requiring monitoring of hepatic function. This is contraindicated in any persons with a history of liver illness or while taking certain medications.
2. Topical Antifungal Agents- Studies have shown anywhere from 30-65% in resolution of infection. Success is increased when the topical agents are used in combination with physical nail debridement and consistent medication use.
3. Laser Therapy- Evidence-based data on efficacy of the different lasers are still poor. Laser therapy is not covered under most insurance plans and treatment costs can be up to \$1000.
4. Surgical Removal of the Nail- This can be performed as a permanent or temporary removal of the nail.
5. Home Remedies- Many have found varying degrees of success using agents like vinegar, bleach, Vicks, Listerine mouthwash, and tea-tree oil.

Regardless of the treatment choice utilized, the rate of fungal nail infection, recurrence remains high. In addition, it may take anywhere from 3-6 months to see any changes in the appearance of the toenail while under treatment.