

# Fungal nail infections

Fungal nail infection is a common infection that affects about three in every 100 people in this country. It is estimated that half of nail problems are due to a fungal infection.

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Fungal nail infection is about four times more common in toenails than fingernails and can involve all or part of the nail, including the nail plate, nail-bed and root of the nail. It is more common in adults than children and more common in men than women. The chances of fungal nail infection increases as we get older.

## What are the symptoms?

The nail becomes thickened and discoloured. The nail can turn white, black, yellow or green. Fungal nail infection is generally not painful and the reason most people seek treatment is that the nail looks unsightly and can be embarrassing. However, if the infection is left untreated it may cause pain and discomfort, but this is rare. In fingernails, it may cause difficulty writing. As the infection progresses the nail can become brittle, with pieces of nail breaking off or even coming away from the toe or finger completely. If left untreated, the skin can sometimes become inflamed and painful underneath and around the nail; white or yellow patches can develop on the nail-bed or scaly skin next to the nail.

## Complications of a fungal nail infection

In very rare cases the infection can spread to the skin around the nail, resulting in cellulitis (bacterial infection of the skin) or osteomyelitis (infection of the bone). These complications are slightly more common among older people and people with health conditions such as diabetes.

## What causes a fungal nail infection?

Several types of fungus can cause nail infections. 93% of fungal nail infections are caused by other fungal skin infections including athlete's foot (tinea pedis) and ringworm (tinea corporis). For example, athlete's foot is a fungal skin infection of the toes that easily spreads to the toenails. Other organisms that are responsible for fungal nail infections include yeasts and moulds.

There are several factors that increase the risk of a fungal nail infection, such as:

- wearing shoes that cause hot sweaty feet, or being in a humid environment
- regular damage to the nail or skin
- having poor health, or certain health conditions such as diabetes or psoriasis

If the infection is not treated, there is a chance it will spread to other nails.

## Athlete's foot

Fungal infection in the toenail is most commonly caused by a fungal skin infection, such as athlete's foot. It is estimated that 20 to 30% of athletes foot sufferers develop a fungal nail infection. Athlete's foot usually affects the skin between your toes, causing it to be red, flaky and itchy.

Page | 2 Fungi grow easily in warm, damp environments, so an infection is more likely to happen after wearing sweaty trainers or if you often have hot, sweaty feet.

## Other causes

Fingernail infections are most often caused by yeast called candida. Occupations that involve a lot of hand washing, or having your hands in water a lot, are often the cause of fingernail infections (eg) if a person is a cook or a cleaner. This is because the skin at the base of your nail can become damaged, and is more likely to become infected. There is an increased risk of a fungal nail infection for those with certain conditions or health issues, such as diabetes or psoriasis, a weakened immune system or being in poor general health

Other factors that can increase the risk of nail infections include using artificial (cosmetic) nails, nail damage, constant nail biting, living in a warm and humid climate, running (as the feet become moist during sport such as running which is good for fungal growth) and smoking. Sometimes, there is no obvious cause of the infection.

## Treating a fungal nail infection

Treatment may not be needed if the infection is mild. The GP may decide to send a clipping of the nail to a laboratory for tests to find out the exact cause of the infection and to rule out other conditions. Fungal nail infections can be cured with appropriate treatment but some types of treatment can take several months to work. Treatment does not always cure the infection. Cure rates are about 60–80%. Sticking with the treatment regime advised increases the chances of curing the infection. The two main treatment options are either antifungal tablets or antifungal nail paint. Antifungal tablets are the most effective treatment but they may cause side effects. Treatment that clears the infection does not always restore the nail's appearance to normal. Studies suggest that in about 5 in 10 cases the nail will look fully normal again after treatment. In about a further 2 in 10 cases the fungus will be cleared from the nail after treatment, but the nail does not look fully normal again. Fingernails tend to respond better to treatment than toenails. Antifungal creams and sprays which are effective for fungal skin infections like athlete's are not effective for fungal nail infections as they are easily wiped or washed off.

## Antifungal tablets

Taking oral antifungal medication in the form of tablets means that the treatment reaches the nail via the bloodstream. The two medicines most commonly prescribed for fungal nail infection are terbinafine and itraconazole. Terbinafine is the most effective of the oral antifungal medicines. In Whelehans we stock the generic versions of terbinafine which can be significantly less expensive than original brands.

The tablets may need to be taken for several months to ensure that the infection has completely gone. Fungal nail infections of the toenails generally take the longest to treat as toenails are harder than finger nails. A fingernail can need around six months of treatment, and a toenail up to twelve months. The usual adult dose of terbinafine is 250 mg once a day; for between 6 weeks and 3 months for fingernails, and for 3–6 months for toenails. Visible improvement can be expected after the end of two months of treatment for fingernails and three months of treatment for toenails. Stopping the medication too early can mean that the infection can return. An advantage of the antifungal tablets is that they will clear any associated fungal skin infections, such as athlete's foot, at the same time.

Possible side effects of oral antifungals include headache, itching, loss of sense of taste, nausea and diarrhea. Thankfully these side effects are rare. Oral antifungals should not be used by people with liver problems and by pregnant women. Many doctors do a liver function test before prescribing antifungal tablets.

### **Antifungal nail paint**

Nail paint is not considered as effective as the tablets because it has to be painted onto the infected nail and work its way through to the infection. It can be difficult to reach all of the infection. For example, it may be useful if the infection is just towards the end of the nail. This treatment does not tend to work so well if the infection is near the skin, or involves the skin around the nail.

A fingernail can need around six months of treatment, and a toenail up to twelve months. Examples include Loceryl<sup>®</sup> Nail Lacquer which contains amorolfine can be prescribed by your GP. In 2012, amorolfine has become available over the counter in Irish pharmacies without the need for a prescription. This new OTC fungal nail treatment is called Curanail<sup>®</sup> and it has the advantage that it is the only once weekly nail treatment available in pharmacies. It is licensed for use in over 18s. Curanail<sup>®</sup> has cure rates of up to 83% after 6 month of treatment due to its ability to penetrate the nail bed to reach poorly accessible fungi.

During treatment, a new healthy nail will start to grow from the base of the nail-bed. This means that the treatment is working. The old infected nail should begin to grow out and can be clipped away over a few months. Fingernails grow faster than toenails, so it may appear they are quicker to get back to normal.

### **New Naloc<sup>®</sup>**

Naloc<sup>®</sup> is another new topical treatment for discoloured or deformed nails caused by nail fungus or psoriasis. It is proving very popular and in Whelehans we been getting a lot of queries about Naloc<sup>®</sup> since it was launched recently. Naloc<sup>®</sup> prevents the growth of nail fungus, gives a smooth nail surface and restores the moisture balance in the nail. Naloc<sup>®</sup> has shown improvement in the appearance of fungal nails after only 2 weeks and 92% of patients reported an improvement after 8 weeks. Naloc<sup>®</sup> generally needs to be used for 3-6 months in order to achieve a significant improvement in the appearance of the nail. One 10ml tube of Naloc<sup>®</sup> treats 3 nails for up to 3 months. It is a once daily treatment and offers the convenience of not requiring the nail to be filed. Naloc<sup>®</sup> may be used while pregnant or breast feeding.

## Nail removal

If other treatments have failed, an option is to have the nail removed by a small operation done under local anaesthetic. This is combined with treatment with antifungal medication.

## Page | 4 Foot care tips

During and after treatment, there are a few steps which can be taken to help keep the infection at bay. Keep feet cool and dry and wear shoes and socks that allow feet to breathe. Wear clean cotton socks and avoid wearing trainers. Treat athlete's foot with antifungal medicine as soon as possible to avoid spreading the infection to your nails. Clip nails to keep them short. Use a separate pair of clippers or scissors to cut the infected nail, to avoid spreading the infection to other nails. Wear well-fitting shoes, without high heels or narrow toes. Maintain good foot hygiene. Wear clean shower shoes when using a communal shower. Consider replacing old footwear, as this could be contaminated with fungal spores. Consider seeking treatment from a chiropodist if thickened toenails cause discomfort when walking. Whelehans pharmacy have a chiropodist in store every Tuesday and Thursday. Call us at 04493 34591 to book an appointment.

## Chiropodist

A chiropodist assesses diagnoses and treats diseases and abnormalities of the feet and lower limbs. A chiropodist can significantly improve a person's quality of life by alleviating painful symptoms and promoting and maintaining mobility. Whelehans pharmacy now has a chiropodist James Pedley every Tuesday and Thursday. You can make an appointment in store or by phoning us at 04493 34591.

## Reduced Chiropody rates for over 60's

Whelehans now hold a weekly Foot Care Day for Senior Citizens. We are offering a reduced rate of €25 per visit. Our senior citizen foot care day takes place every Tuesday. Book now at 04493 34591. The special rate of €25 per treatment applies to over 60's only. Booking must be taken in advance and one the treatment at this reduced rate is limited to one per visit.

**Disclaimer: Please ensure you consult with your healthcare professional before making any changes recommended**

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