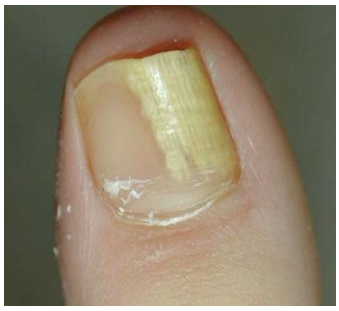
FEETMATTER
PODIATRY
Specialist in Children's Footcare

FUNGAL NAIL INFECTIONS



Not all discoloration of the nail plate is a fungal infection. Sometimes past trauma will change the structure and attachment of the nail, continual use of nail vanish may discolour and damage the top of the nail plate. Before any treatment is commenced, the presence of a fungus should be established. This can be done by a simple test by the Podiatrist (approx £35) or you can ask your GP to send nail clippings to be tested (the Podiatrist can take these at the time of an appointment).

If a fungus is present, it may be one of three types of organisms. The most common infection is by a dermatophytes. The other types of infection are a non-dermatophyte or a yeast. Yeast infections are usually associated with inflammation of the skin around the nail.

The fungal infection presents in four common ways:

- Distal-lateral subungual infection – this presents with discoloration at the front edge of the nail, with debris gathering under the nail (picture above) and separating the nail from the skin under the nail (nail bed). Although only the skin under the nail is affected initially, over time the nail plate can become infected.
- Superficial white infection – a white powdery area develops in the top of the nail plate making the plate soft or flaky in texture.
- Proximal subungual infection – the discoloration underneath the nail starts at the base of the nail.
- Total dystrophic infection – the entire nail plate is thickened, crumbly and discoloured.

Treatment of the fungal infection can be done in two ways but either way, these are long treatments as the nail usually needs to grow out fully whilst the treatment is undertaken. Treatment can be taken orally or applied topically.

<u>Oral treatments:</u>

These would be prescribed by your GP. These are the most effective methods and the tablets are usually taken for three to six months. They are probably the most convenient method as you do not have to do anything to your nails and can still have vanish applied. The GP is unlikely to prescribe the tablets for just

one or two nails and, as with all tablets, side effects need to be considered. For example, the most frequently used tablet (Terbinafine) often causes taste and smell changes, upset stomach or tinnitus. These stop when the course of medication stops, but may occur for six months if the course is needed for that length of time. A blood test may also be needed to ensure that the liver is functioning well before the tablets are started.

Slightly more effective than tablets alone is to combine tablets with a topical lacquer (see below).

Topical treatments:

The nail plate is very resistant to chemicals penetrating it. Therefore the normal creams and sprays used for fungal skin infections will generally not work on fungal nail infections. To improve nail penetration, special lacquers have been developed. Possibly the most effective of these in Loceryl (5% amorolfine) which is reported to be 70% effective at killing the fungus. The lacquer needs to be applied twice weekly until the nail has fully grown out (approx nine months) and works best if the nail plate is reduced in thickness each month (through a podiatry appointment). The lacquer will not penetrate nail vanishes so the nails cannot be painted in this time (or needs re-painting after each application!). The lacquer is available over-the-counter.

Emtrix is another treatment that changes the quality of the nail plate and is reported to also kill the fungus. It is applied daily. The literature says that 90% of people are pleased with the results of the treatment, but figures for actual cure of the fungus are not given.

A further technique that can be used is called fenestration or lacuna method. Small holes are drilled through the nail plate so that the more effective skin fungal sprays (Lamisil) can be applied to the nail and will seep through to the underlying infected area. Again, the spray needs to be applied daily and nail vanishes cannot be used during this time.

Topical treatments are also more effective if there is less than 50% of the nail affected. It might therefore be better to start treatment sooner rather than later. And maybe consider treatment across the winter months when nail vanish is not such a requirement.

A fungal skin treatment should be used at the start of any nail treatment.

Other treatments:

A new topical treatment (Jublia = efinaconazole) is likely to be available soon with better efficacy than some of the other topical treatments. Your GP may be able to prescribe it. It has been shown to be able to penetrate nail vanish however it usually tarnishes the finish of the varnish.

There are other treatments available such as laser therapy. There is very limited research to provide cure rates for this; it is also very expensive (up to £1000).

Regardless of the treatment chosen, the cosmetic appearance of the nail often does not improve in the long term and often only the fungus is destroyed.