

# Thrush

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Thrush is invasion of frog tissue by opportunistic bacteria and fungi which thrive in moist, low oxygen environments.

It can occur in any horse, but is most often seen in those horses with narrow or contracted heels that also have a precipitous central sulcus, which is the ideal environment for thrush.

**Below: A contracted hoof with a deep central sulcus and collateral groove thrush infection.**



**Below: A freshly trimmed hoof showing a deep central sulcus thrush infection.**



**Below: A neglected hoof can get thrush even in a dry environment.**



The presence of thrush is heralded by its unmistakably offensive odor. It firstly appears as a crumbly white cheesy substance when it invades surface tissue of the frog; but when it invades deeply into the lateral or central sulci, it mostly appears as a black paste.

Horses are not usually lame when thrush invades, at least not until such time as it enters sensitive tissue (**refer to black arrow on sagittal cut picture in right**).



Thrush has the potential to cause very serious lameness – albeit indirectly – because it can set up incorrect mechanics. The pain from infected frogs causes a horse to impact on its toes (**pictured left**) which if sustained has a devastating effect on the navicular region of the foot (**pictured left**).



**Pictured Right, thrush from a puncture wound.**

## Prevention is far better than treatment.

Any thrush invasion of the central sulcus should be treated very seriously.

Horses' feet should be routinely observed for the beginnings of thrush invasion. Horse owners should regularly use the hoof pick to inspect the central sulcus, checking for both sensitivity and also the presence of any foul smelling black paste like material.



The trimmer is the front line against thrush. Each and every time a hoof is trimmed, the frog should be checked for thrush and if any is present, any loose, overlying or diseased frog should be removed (pictured left). Please note that frogs should not be routinely trimmed this way, only when there is diseased tissue.

Good healthy functional frogs are less prone to thrush. Regular maintenance trimming to keep the hoof short and the frog stimulated is a great preventative for thrush along with a low sugar diet and regular and correct movement.

Regular feeding of balancing supplements also appears to play an important role in frog health, particularly copper and zinc. Horse owners should refer to a professional nutritionist for advice.

## Topical Treatment

There are many options available for topical treatment of thrush – the qualifier being that the agent needs to be strong enough to kill the pathogens, but at the same time benign enough to not adversely affect living tissue.

There are numerous thrush controlling products on the market. All of them seem to work at least some of the time, but none seem to work all of the time. The author travels regularly around Australia and has found that the best cures for thrush are those based on local knowledge and what is known to work in each area.

Some alternatives are: iodine based solutions, copper sulphate solutions, cider vinegar, tea tree oil, tea tree oil and lanolin, menthol based creams, household bleach, exit mould and even pine tar. There are also numerous ready made thrush controlling mixtures on the market.

For stubborn cases of deep seated infection that can't be removed, nothing seems to be as effective as daily soaking in strong salt water and applying dressings of manuka honey.

Whatever treatment you choose to control a thrush infection, it is imperative that daily treatment is applied until the disease is controlled and strong new healthy tissue has begun to regenerate.

If a thrush infection persists, it is advisable to seek an experienced 'eye' to check for thrush's rare, but more sinister cousin – equine canker (**pictured right**)

### The importance of environment!

Horses suffering from thrush invasion should be kept in a relatively dry environment wherever possible.

For those areas where the ground is constantly damp, the best prevention may be to lock the horses up at night with dry footing – such as a deep layer of free draining round gravel.

