



What is it?

Digital dermatitis is an extremely contagious, erosive infection of cattle skin caused by Treponeme bacteria. It affects the skin at the heel bulbs, between the claws and around the coronary band. The bacteria penetrate the skin's surface and once within the soft tissue they release enzymes that cause more skin damage, bleeding and pain. Once into the deep tissues of the foot the bacteria can remain there and reactivate later after the initial lesion has healed. In addition to causing lameness in its own right, presence of 'digi' on a farm tends to have an impact on other causes of lameness, causing non-healing sole ulcers or white line lesions, and is often associated with cases of toe necrosis.

Where does it come from?

An infected or carrier animal brought onto a farm is the most likely route of entry. Once on the farm we now believe the main method of transmission is from cow to cow. Bacteria can survive for a short time in the environment, principally in slurry.

Animals with active lesions act as a reservoir of disease able to infect other cows. Bacteria can be spread easily between animals on gloves, hoof knives and other equipment.

Certain conditions make an animal more susceptible to digital dermatitis infection. Wet, slurry contaminated environments make the skin around the foot more vulnerable to attack from bacteria. There also appears to be a degree of immunity in some animals, whereas others are very susceptible. You may find that some cows often pick up digi whereas others are never affected.

How do I diagnose it?

The condition is painful and affected cows are usually lame. They may shake or flick their feet. Lesions may be seen in the parlour, but lesions between the claws or at the front of the foot are harder to spot. The foot needs to be lifted to properly examine it. Early infection may manifest as reddened skin, or tufts of hair stuck together. Cows are usually sensitive and will pull the foot away when pressure is applied to the affected area.

Scoring of Lesions



(Lesion scoring system modified from Dopfer et al and Berry et al)

Mo	Healthy Skin
M1	Early red lesion <2cm
M2	Active red ulcerated lesion >2cm
M3	Lesion covered by scab or film
M4	Black keratotic scab
M4.1	Reactivated lesion

How do I control it?

Digital dermatitis has been termed the 'mastitis of the foot'. It needs to be considered as such to be controlled effectively.

1. **Early detection and treatment of clinical cases-** prevents spread to uninfected cows
2. **Regular foot disinfection-** improved cleanliness and condition of skin
3. **Internal biosecurity-** more frequent scraping of yards, disinfection of hoof knives etc
4. **External biosecurity to keep infection out-** quarantine and treatment of bought in animals



Footbathing

Aim- disinfection of the foot.

- Must be easy and comfortable for cows to walk through
- IDEALLY USE DAILY
- High yielders or fresh cows go through first (most at risk)
- Exit onto clean concrete to dry
- 0.6 m wide, 3m long, 28 cm depth (Allows rear feet have two immersions)
- Don't forget your heifers and dry cows- once a week through the footbath
- Consistent regular use is more important than product choice
- REMEMBER- mastitis of the foot- think of it as dipping teats- it needs doing every day.

Cost Benefits

In herds with digi the cost to the farmer is roughly £3000 per 100 cows per year. The estimated cost of a case of digital dermatitis is £80, this takes into account loss of milk yield and increased days to conception. Using formalin at 4% daily will cost approximately £800/year/100 cows, ie a return of investment of nearly 4:1.

As always speak to your session vet or ring the office to speak to one of us if you have any questions or queries!



Bea

DO	DONT
Scrape out passageways and yards regularly	Allow slurry to build up or pool by troughs/feed faces
Source cows from herds with known digi status	Buy cows from unknown herds
Visually inspect new cows for lesions and isolate for 2 weeks	Keep lame cows in the same pen as freshly calved cows- risk of spread
Disinfect knives and other equipment between cows when trimming	
Keep on top of routine trimming to optimise foot angle and reduce slurry heel	
Promote disinfection of boots for visitors	

Treatment of Clinical Cases

Aim- to prevent these cows spreading bacteria to other cows

- Clean and dry affected area thoroughly