



# BREAKING THE CYCLE



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## Digital Dermatitis

**Digital dermatitis** is often referred to as hairy heel warts and is a common infectious foot disease in dairy and beef cattle herds.

- Digital dermatitis has been reported on 70 percent of all U.S. dairies, and on 95 percent of large operations (500+ cows).<sup>a</sup>
- The size and scope of digital dermatitis within the beef industry is undetermined but is a growing concern.
- The disease often leads to lameness, which decreases milk production and fertility in dairy animals. In beef, lameness can account for 70 percent of all sales of non-performing cattle.<sup>b</sup>

### Description

Raw, bright-red or black circular erosion of the skin above the heel bulbs, with edges forming a white margin that surrounds sores or is adjacent to thick, hairy, wart-like growths.

### Pathogenesis

Weakening of the skin barrier, due to mechanical irritation and hyper hydration. Poor hygiene results in mixed infection with different bacteria, among them *Treponema* species, in a low-oxygen environment. Infection of the dermis leads to or results in acute inflammation – ulcerative dermatitis. Acute stage may develop into chronic forms characterized by thickening and proliferation of the epidermis (hairy warts).

### Risk Factors

- Introducing new animals into the herd (biosecurity)
- Poor hygiene, such as muddy pens and inadequate footbath programs
- Foot insult/injury, chemical/physical skin trauma
- Early lactation cows and young cattle with potential nutritional deficiencies

### Complications

- Wall and toe abscesses
- Pre-mammary dermal sores
- Layered heel horn erosion and abnormally shaped claws
- Poor hygiene in interdigital space

Poor Hygiene  
Biosecurity  
Environmental Extremes

Digital  
Dermatitis  
Develops

<sup>a</sup> Reference of Dairy Cattle Health and Management Practices in the United States, USDA/National Animal Health Monitoring System report, February 2009.  
<sup>b</sup> "Lameness in Beef Cattle." The Beef Site, Sept. 17, 2011.