

Laminitis in Cattle

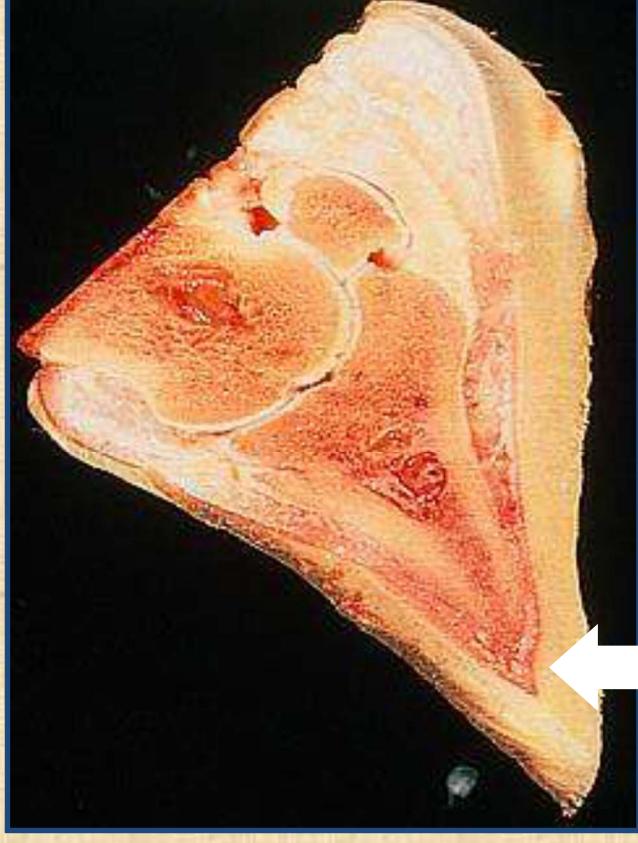
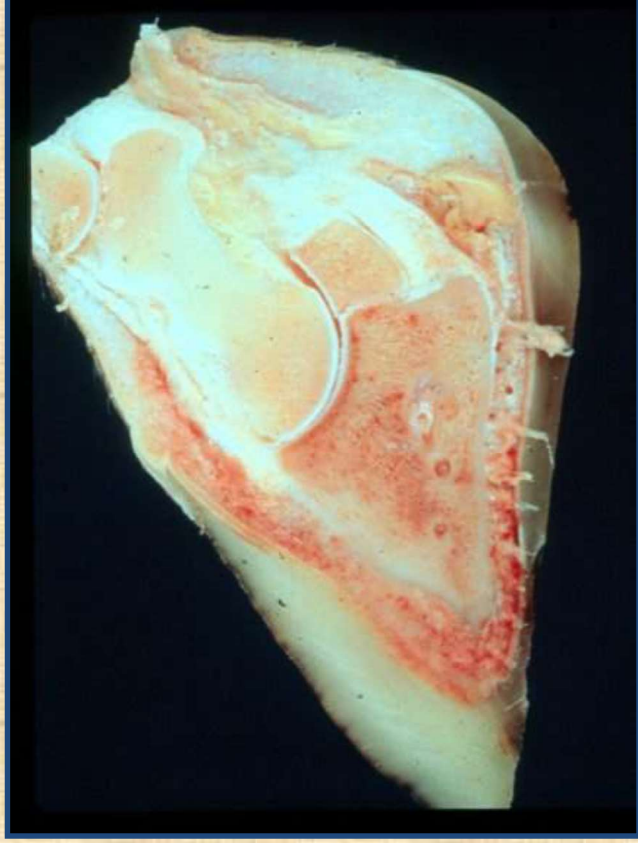
DIAGNOSIS

- Walk Softly With Very Short Steps
- Affects Both Sides
- Tend To Stand With Feet Forward

Laminitis in Cattle

LAMINITIS AND THE SUSPENSION SYSTEM

- Laminitis Disrupts the Attachment of the P3 Bone to the Wall
- P3 Bone is Free to Rotate, sink
- Pressure Through the sole = Ulcers



Laminitis in Cattle

TREATMENT

- Generally No Effective Treatment
- Consistent Bunk Management
- Adequate Step-up Rations

Laminitis in Cattle

ACUTE OR SUBACUTE LAMINITIS

- Introduction
 - Acute laminitis is not common in cattle and usually is seen in a single animal or a group that has accidentally engorged on large quantities of grain.
 - The incidence of acute laminitis in dairy cattle probably varies from 0.6–1.2%.
 - Subacute laminitis may be seen in young beef bulls on feeding trials and in feeder calves that have been fed rations rich in carbohydrates.

Laminitis in Cattle

ACUTE OR SUBACUTE LAMINITIS

- Clinical Findings
 - Acute and subacute laminitis have a rapid onset.
 - In the most acute cases, there may be fever and an increased respiratory rate.
 - In the initial phases, the claws may be warm to the touch, and a pronounced digital pulse will be perceptible.
 - Pain may be detected in the claws with the use of hoof testers.
 - The animal will be reluctant to walk and will stand abnormally.

Laminitis in Cattle

ACUTE OR SUBACUTE LAMINITIS

- Treatment
 - ❑ If the cause is obvious, such as grain overload, it should be corrected.
 - ❑ Antihistamines may be useful if given within the first 48 hr after a known insult.
 - ❑ Anti-inflammatory drugs may be useful if given before the onset of acute signs.

Laminitis in Cattle

CHRONIC LAMINITIS

- **Introduction**
 - Chronic laminitis is recognized by the bent, flat, square-toed, and heavily ridged appearance of the claw (slipper foot).
 - It is the result of a prolonged process, and is assumed to be caused by a series of laminitic insults.
 - It is most common in dairy cows >5 yr old.

Laminitis in Cattle

CHRONIC LAMINITIS

- **Clinical Findings**
 - ❑ There are no clinical signs.
 - ❑ Some animals appear to walk in a deliberate, careful manner.

Laminitis in Cattle

CHRONIC LAMINITIS

- **Etiology**
 - ❑ high levels of carbohydrate in the rumen invoke an increase of *Streptococcus bovis* and *Lactobacillus* spp, which induce a state of acidosis in the rumen. This causes gram-negative organisms to die and release vasoactive endotoxins.
 - ❑ High levels of histamine in the blood have been found in the early stages of the disease. It is probable that subacute ruminal acidosis (SARA) is one key factor in development of laminitis, because managing SARA does help to control the incidence of subclinical laminitis.
 - ❑ Trauma; hard flooring is equal in importance to nutritional problems. Prolonged standing, waiting in line to drink, or spending >3 hr in the holding yard each day are factors that are commonly overlooked.
 - ❑ inability to exercise reduces the amount of oxygen and nutrition delivered to the claw.

Laminitis in Cattle

CHRONIC LAMINITIS

- **Control**
 - ❑ managing SARA depends on the quantity and digestibility of the carbohydrate that is fed. The more rapidly carbohydrate is digested, the more rapidly rumen acidosis will develop.
 - ❑ Finely ground or moist grains are more digestible than dry, cracked grain. Corn silage is frequently used in dairy production.
 - ❑ Sudden changes in the diet or formulation of the diet are extremely dangerous.