

## **Septic Distal Interphalangeal Joint**

### **A. Ankylosis- fenestration of the distal interphalangeal joint**

Insert a needle into the joint capsule through the coronary band to verify the nature of the joint contents. In those cases where there is *no swelling of the heel or deep flexor tendon* a simple *fenestration of the joint* may result in a *satisfactory cure* following ankylosis of the joint.

1. Perform **IVRA** and cleaning the sole.
2. If it is intact, a 7 to 12 mm (3/8 to 1/2 inch) drill is used to fenestrate the joint. Beginning in the *typical site for sole ulcer* the ***drill is directed in a sagittal plane to exit the digit just at the coronary band on the dorsal surface***. This will satisfactorily provide drainage of the joint.
3. *Surgical tubing or braided nylon rope* is passed through the drilled hole and tied around the *abaxial side* of the hoof. A *block is placed on the healthy digit* and *systemic antibiotics* given for 5 days.
4. The *drain is removed in 2 weeks*. *Full ankylosis* requires *several months* but the cow will usually be sound without a block in 1 month.



### **B. Low Digit Amputation**

1. Incise interdigital skin to the level of the PIP joint or the very distal aspect of the proximal phalanx axially.
2. Undermine and reflect the skin.
3. Insert a gigli wire in the interdigital space with an angle of 45° to the proximal digit abaxially for a better cut.
4. An assistant can hold the digit to provide more stability when the cut is performed. *The cut should go through the distal portion of the proximal phalanx (P2).*
5. Remove the interdigital fat and all remaining necrotic tissues. Ligatured the digital vessels with absorbable suture.
6. Lavage the wound then dry it with gauze.

7. Apply a semi-occlusive layer on the distal portion of the proximal phalanx, using multiple layers of gauze and then wrapped it with adhesive bandage.
8. Change the bandage 24 hours after the surgery and then change again every 4 to 5 days, as needed. Ideally, bandages are continued until the surface of the bone is covered with granulation tissue.
9. Administer a broad spectrum *systemic* antibiotic for 5 to 10 days after the surgery.

A skin flap can be preserved to cover the stump by continuing the interdigital incision distal and abaxial at the palmar and dorsal aspect of the digit and along the proximal aspect of the coronary band. You get a good cosmetic result and it decreases subsequent care of the stump however it may prevent adequate drainage and extension of the infection. A drain should be placed when closing the skin. If there is infection do not leave skin and allow to drain.

Note that antibiotics will never replace good surgical principals and adequate postoperative hygiene.

Reference- <http://veterinarycalendar.dvm360.com/surgery-diseased-bovine-digit-proceedings-0?id=&sk=&date=&%0A%09%09%09&pageID=2>  
[https://www.vetfood.theclinics.com/article/S0749-0720\(08\)00062-5/pdf](https://www.vetfood.theclinics.com/article/S0749-0720(08)00062-5/pdf)