

**Castration Techniques Thoughts ... not intended to be “how to” directions,  
but comments on castration priority considerations. Dee Griffin UNL-GPVEC, 2014**

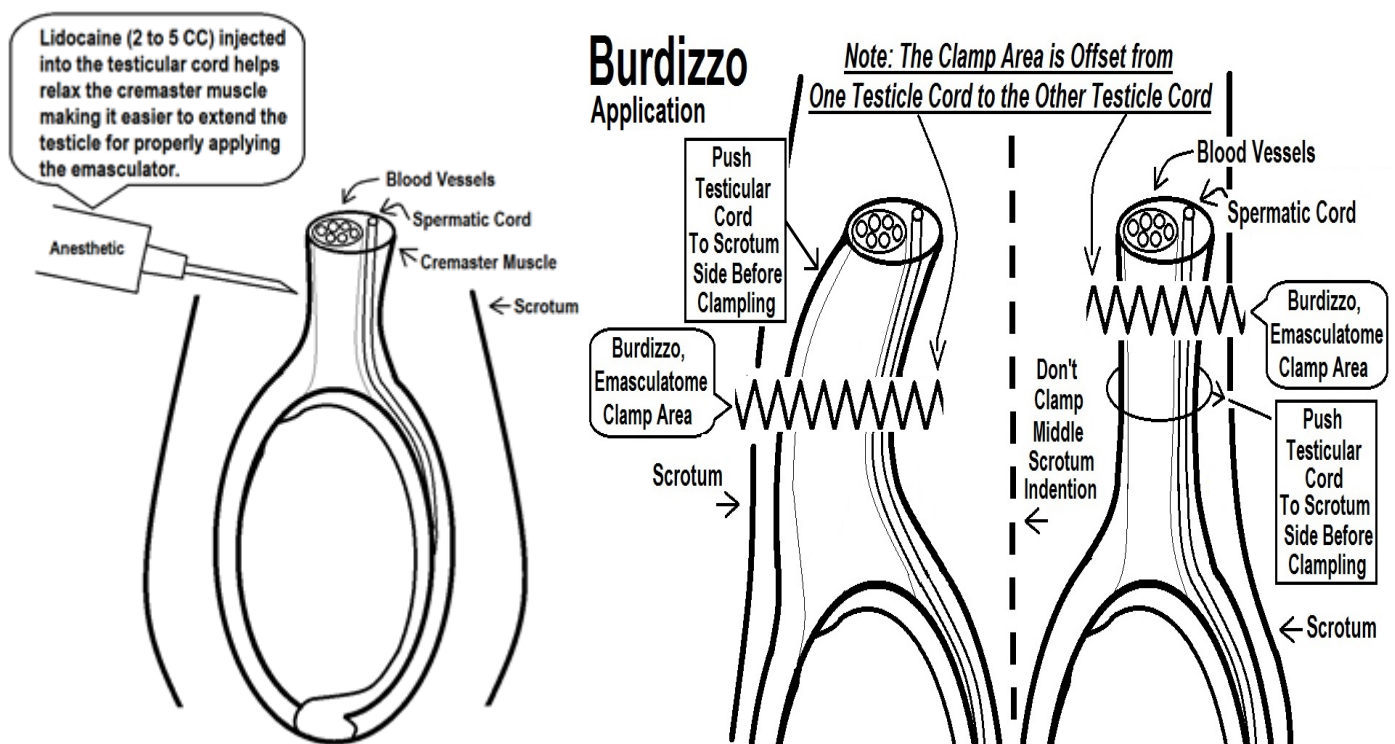
1. Castration should be done at the earliest age practical ... the younger the better.
2. The most appropriate method is the method which is in the best interest of the health and well-being of the animal, as determined by a veterinarian, within the environment in which it is being raised.
3. Anesthesia and pain management (more will be discussed at the end of this outline)
  - a. Effective local anesthesia is virtually impossible to achieve, but lidocaine injected into the total testicle cord between the abdomen and the testicle will relax the cord making it easier to apply the castration instrument.
  - b. The inability to achieve effective local anesthesia is an additional reason cattle it is better to castrate at the youngest age practical.
  - c. Sedation has not proven to decrease castration stress.
  - d. Epidural anesthesia may help lessen stress but can have serious complications.
  - e. Research demonstrates “meloxicam”, a prescription ORAL medication dosed at 45 mg / CWT (3, 15 mg tabs) is the best postoperative pain mitigation medication.
4. A “Knife” (surgical) castration technique can work very well ... IF ...
  - a. performed by a person who understands the anatomy,
  - b. is very clean with the technique,
  - c. the calves can recover from the surgery in a clean grass pasture,
  - d. and the surgically castrated animal is observed closely for two weeks following castration for complications.
  - e. Knife castrated cattle should not be recovered a “dry lot” that is being used as hold cattle due to the potential for serve surgical site infection.
  - f. Surgical technique instructions can be found in various veterinary surgical text books
    - i. A producer oriented Internet site that includes surgical castration is;  
<http://www.wikihow.com/Castrate-Bulls-and-Bull-Calves>
5. A “Band” castration technique (Callicrate Bander, Callicrate Wee Bander, Wadsworth XL Bander, California Bloodless Bander) can work very well ... IF ...
  - a. precautions to prevent Tetanus are taken,
  - b. the techniques is performed by a person who is properly trained to use the type bander being used,
  - c. the proper size bander is selected for the size calf or bull being banded,
  - d. and the band castrated animal is observed closely for two weeks following castration for complications.
  - e. All banding unites come with use instructions, but instructions can be found at;
    - i. <http://www.nobull.net/index.html>
    - ii. [http://www.castrator.com/eze\\_castrator\\_instructions.htm](http://www.castrator.com/eze_castrator_instructions.htm)
    - iii. A producer oriented Internet site that includes the use of banders is;  
<http://www.wikihow.com/Castrate-Bulls-and-Bull-Calves>
6. A “Spermatic Cord Crushing” castration technique (Burdizzo, Emasculatome (9”,12”,14”,16” & 18”)) seems to be less stressful than other techniques and can work on any age bovine ... IF ...
  - a. Careful isolation of each testicular cord and movee to side of scrotum before clamping.
  - b. Clamping is applied at different levels on each cord.
  - c. Care is taken to isolate the animal's penis so as to NOT crush the penis.
    - i. A producer oriented Internet site that includes the use of an Emasculatome is;  
<http://www.wikihow.com/Castrate-Bulls-and-Bull-Calves>
7. Precautions
  - a. “Pulling the Testicle” technique should not be done on calves older than 8 to10 weeks of age because of severe hemorrhage can occur when the blood vessels break. The hemorrhage is frequently not visible as the vessels retract into the abdomen and extensive blood loss occurs inside the animal.

- b. If a "Newberry" knife is used to open the scrotum, the blade must be sharp and the knife blade cleaned and disinfected between each animal.
- c. For surgical castrations, only a high quality emasculator (Double Crush, Frank, Jeffer's, White's, Serra or Reimer) should be used if the animal is over 8 to 10 weeks of age. Note: Both the Double Crush emasculator can be purchased in a small size more suitable for use on calves younger than 6 to 7 months.
- d. If a Burdizzo type emasculator is used, care must be taken to not crush the penis and applied on a different level of each testicular cord.

## 8. Instrument Examples Images

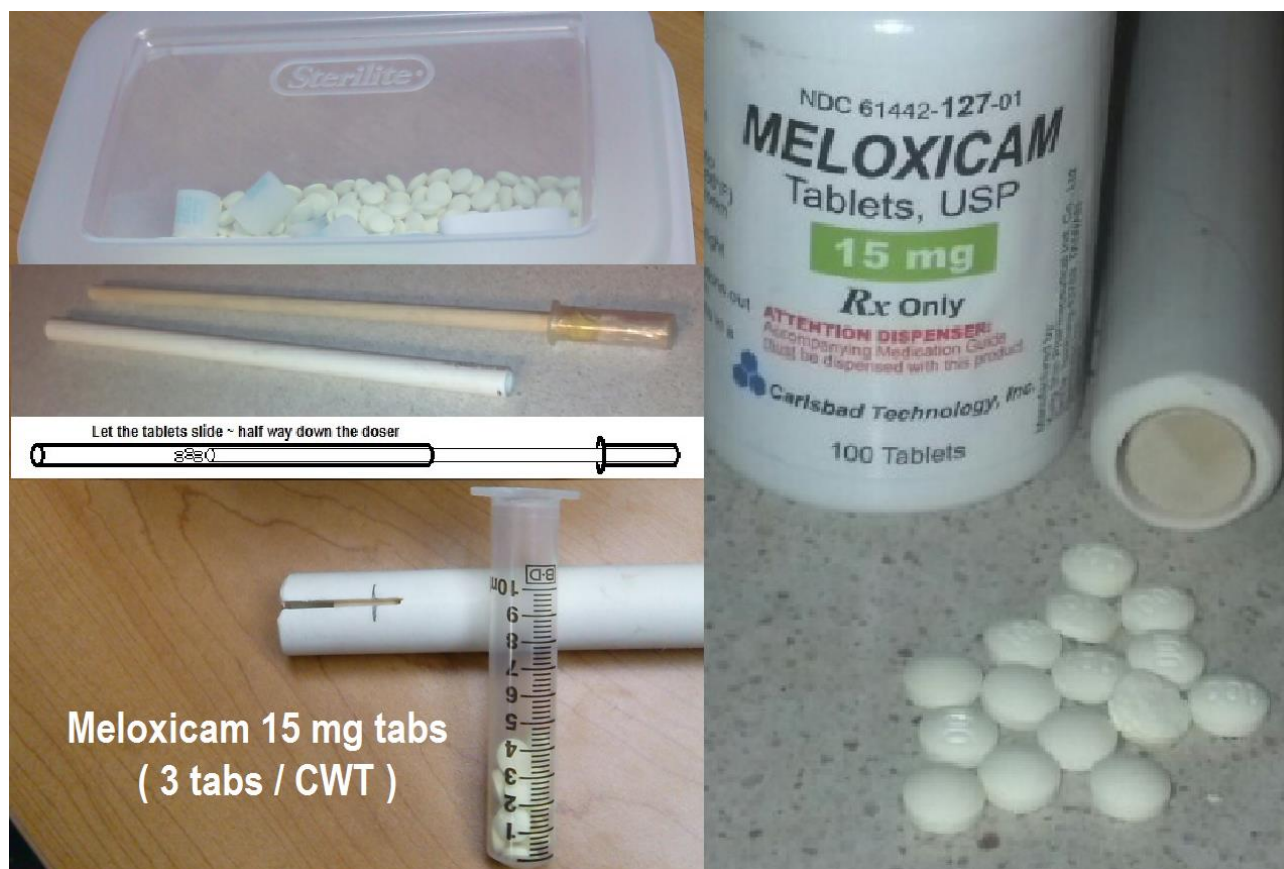


## 9. Anatomy



## 10. Post Castration Pain Mitigation

- a. Meloxicam may be prescribed for ORAL dosing.
- b. Meloxicam medication half-life is over 24 hours in cattle when given orally whereas when injected the half-life short.
- c. Meloxicam usage requires a prescription.
- d. Federal and state laws require the prescribing veterinarian to have a VALID CLIENT PATIENT RELATIONSHIP (VPCR) with the cattle owner's management.
- e. The dose is 45 mg / CWT (three 15 mg tabs)
- f. A dosing devise ("pill gun") can be constructed from  $\frac{1}{2}$ " PCV tubing 18" to 24" in length and a  $\frac{1}{2}$ " wooden dowel rod. A handle can be added to the wooden dowel by gluing a 20CC syringe barrel to the end of the rod ... back tag cement works well.
  - i. NOTE the  $\frac{1}{2}$ " wooden dowel rod is a tic too large and will require sanding before it slides smoothly inside the  $\frac{1}{2}$ " PCV tubing.
  - ii. A slit approximately 1  $\frac{1}{2}$ " long can be cut with saw into the end of the pill gun. A mark across the slit indicating the depth inside the pill gun needed to hold the average number of tabs needed for the group of cattle be worked can speed dosing ... OR ...
  - iii. An empty 10 CC syringe barrel can be marked to indicate the level required to provide the number of tabs needed to dose the average weight of the cattle being worked.





## Dehorning Anesthetic ... HOW TO, Dee Griffin (DGriffin@GPVEC.UNL.EDU) 2014

- Why give an anesthetic
- Stops most, if not all of the fight
- Decreases most, if not all of the bawling ...
- Make the job a bit easier & frequently safer
- Potential to improve performance
  - We sell performance & gain efficiency
  - If the cattle we depend on to make a living is mistreated in any fashion ... physically, nutritionally, environmentally, emotionally ... any fashion ... it costs us money!
- It is a nice thing to do



### What do you need

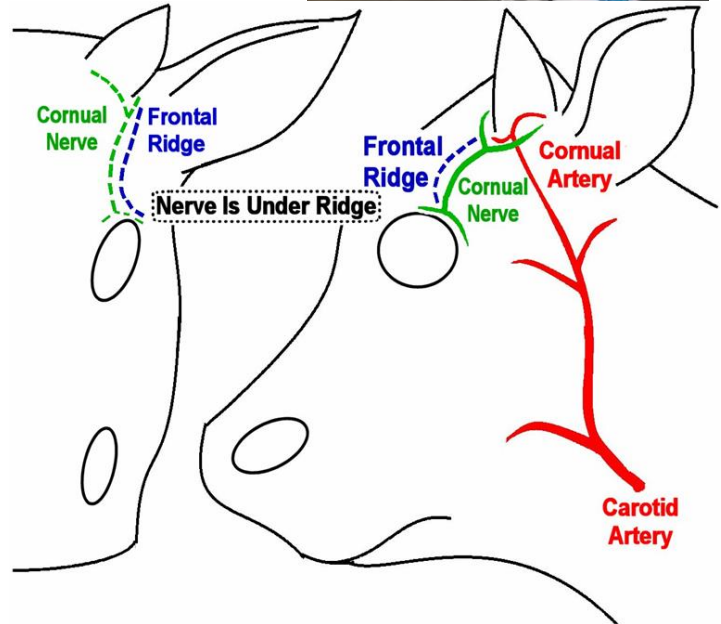
- Lidocaine ... see your vet, it's a prescription drug, just like the new antibiotics you are using.
- 18 gage needle 5/8" to 1"
- Syringe that will deliver 5 to 10 cc lidocaine

### How does it work

- Lidocaine infused in or around the CORNUAL nerve.
- Pain control is almost immediate if given in or next to the nerve.

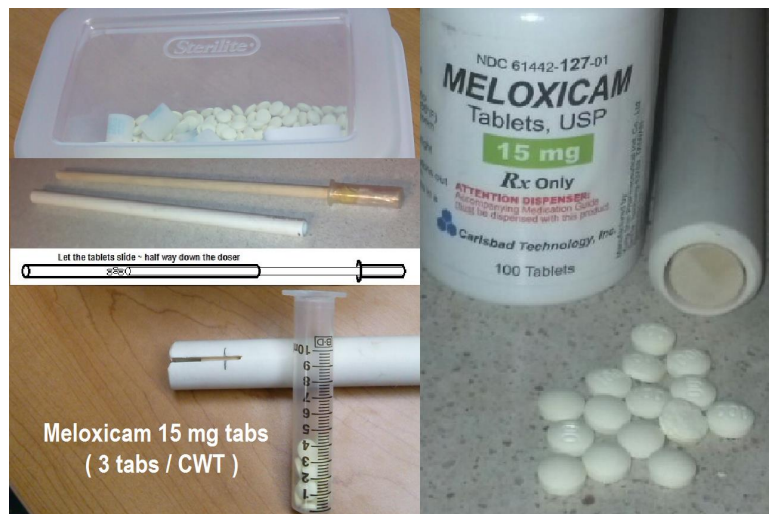
### How to give it

- Palpate the CREST or RIDGE between the eye & the horn.
- Slide needle 1/2" to 3/4" straight in under the ridge or crest.
- Inject half way between eye & horn, 1/2"-3/4" deep under the ridge
- Inject 5 to 10 CC lidocaine.



### Post-Dehorning Pain Management

- Meloxicam may be prescribed for ORAL dosing.
- Meloxicam medication half-life is over 24 hours in cattle when given.
- The dose is 45 mg / CWT (3 x 15mg tabs)
- A dosing devise ("pill gun") can be constructed from 1/2" PCV tubing 18" to 24" in length and a 1/2" wooden dowel rod. A handle can be added to the wooden dowel by gluing a 20CC syringe barrel to the end of the rod ... back tag cement works well.



NOTE the 1/2" wooden dowel rod is a bit too large & requires sanding before it slides smoothly in the 1/2" PCV tubing. A slit approximately 1 1/2" long can be cut with saw into the end of the pill gun. A mark across the slit indicating the depth inside the pill gun needed to hold the average number of tabs needed for the group of cattle be worked can speed dosing ... OR ... An empty 10 CC syringe barrel can be marked to indicate the level required to provide the number of tabs needed to dose the average weight of the cattle being worked.