



# BURDIZZO CASTRATION FACT SHEET

## A Fact Sheet for the Canadian Beef Industry

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### Purpose of Castration

The purpose of castration is to stop the production of male hormones by removing or destroying the testicles. Methods currently practiced in Canada include bloodless or surgical castration. Benefits of castration include:

- Prevention of unwanted breeding
- Prevention of mounting of cattle, which can cause injury, resulting in “dark cutters”
- Decreased aggression to other cattle and farm personnel
- Improved meat quality
- Premium from markets for steers [1]

### Age to Castrate

All methods of castration are stressful and painful. However, castrating at an early age minimizes such factors. Studies have found that weight loss associated with castration increases as the age at time of castration increases [2]. The National Farm Animal Care Council (**NFACC**) does not recommend castration during weaning, due to the stress that the calf is already experiencing [3].

One study found that calves castrated prior to weaning had increased feed intake and average daily weight gain, in comparison to calves castrated at weaning [2, 4]. To determine the best time to castrate most appropriate for each technique, consult with your veterinarian.

### Burdizzo

The Burdizzo is used to crush both spermatic cords, thus stopping blood flow to the testicles, which are then reabsorbed by the body. The Burdizzo method has been known to have a high failure rate. Failure to castrate using the Burdizzo method is usually due to improper technique or improper care of the clamp.

When not in use the clamp should be stored in a dry area with the clamp open.

Castration with the Burdizzo is best performed with the calf standing and an assistant performing a tail-jack. Make sure that both testicles have descended into the scrotum. If they have not, record the calf’s number and have your veterinarian check at a later date. Inspect the clamp and make sure it completely closes, as shown in Figure 1.

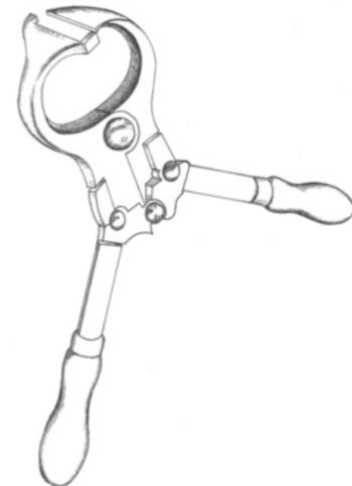


Figure 1: Burdizzo Clamp [5].

Proceed to clamp one spermatic cord halfway between the testicle and the belly wall. While the cord is clamped, feel to make sure that the cord has not slipped and hold the clamp for 10 seconds. Repeat this procedure with the other spermatic cord approximately 1 cm below the crush line of the other cord [5], as shown in Figure 2.

Monitor the calves after castration and ensure that they continue to eat and drink. Check the calves in 4 to 6 weeks to see if the testicles have shrunk.

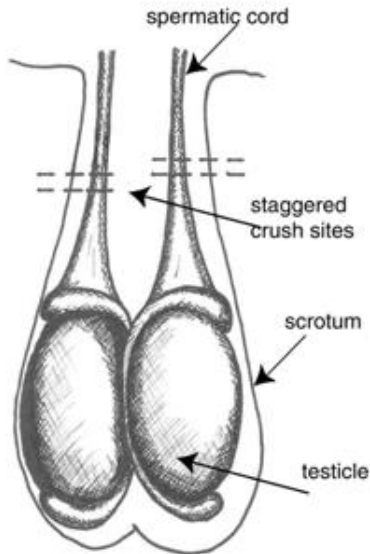


Figure 2: Appropriate Burdizzo placement [5].

### Pain

All methods of castration cause pain, but castrating at an earlier age has shown to lessen the amount of pain [1]. Work with your local veterinarian to plan an appropriate castration protocol for your operation. Indicators of pain include:

- Tail swishing
- Stomping feet
- Head turning
- Abnormal wide stance
- Abnormal gait
- Reduced activity level
- Reduced interest in feed and/or water

### References:

1. American Veterinary Medical Association (AVMA). 2014. Literature review on the welfare implications of castration of cattle. Available at: <https://www.avma.org/KB/Resources/LiteratureReviews/Documents/castration-cattle-bgnd.pdf> Accessed: 12/11/14.
2. Bretschneider, G. 2005. Effects of age and method of castration on performance and stress response of beef cattle: A review. *Livest Prod Sci.* 97(2-3): p. 89-100.
3. National Farm Animal Care Council (NFACC). 2013. Code of practice: for the care and handling of beef cattle. Available at: [http://www.nfacc.ca/pdfs/codes/beef\\_code\\_of\\_practice.pdf](http://www.nfacc.ca/pdfs/codes/beef_code_of_practice.pdf) Accessed: 08/29/14.
4. Warnock, T.M., Thrift, T.A., Irsik M., Hersom, M.J., Yelich, J.V., Maddock, T.D., Lamb, G.C., Arthington, J.D. 2012. Effect of castration technique on beef calf performance, feed efficiency, and inflammatory response. *J Anim Sci.* 90(7): p. 2345-52.
5. Anderson, N. 2007. Castration of Calves. Ontario Ministry of Agriculture, Food and Rural Affairs. Available at: <http://www.omafra.gov.on.ca/english/livestock/beef/facts/07-029.pdf> Accessed: 12/11/14.

## For Your Information



### Code of Practice Requirements

- **Effective January 1, 2016:**  
Use pain control, in consultation with your veterinarian, when castrating bulls older than 9 months of age.
- **Effective January 1, 2018:**  
Use pain control, in consultation with your veterinarian, when castrating bulls older than 6 months of age.

### Acknowledgement

Gerrit Rietveld, Ontario Ministry of Agriculture Food and Rural Affairs, Animal Care Specialist, drew the figures used in this fact sheet.



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