Useful Background Information

Children who grew up in a rural setting are well aware of how common it is to castrate farm animals. They know that castration is an essential part of any selective breeding program so that only the “best” males are allowed to breed. They may not know much about castration of race horses, which is covered in this lesson. Nor may they know much about the effects of male sex hormone on behavior, food quality, or athletic performance. These topics are also covered in the lesson.

For children who grew up in an urban setting, this may be their first exposure to this concept. They probably never think much about the role of castration on the quality of meat they get from the grocery store.

This lesson also provides an opportunity to teach children about the undesirable consequences of using anabolic steroids, a practice that is not unknown among high-school athletes. The lesson covers not only the ethical issues involved but also the biological consequences.

The Veterinary Black Bag Program
Project Goals:
- Develop Veterinarian’s Black Bags (VBBs) of instructional items and pamphlets for middle school teachers to support classroom visits by local veterinarians.
- Provide professional development for veterinarians and teachers on how to use items in the VBBs.
- Promote inquiry-based thinking about health-related subjects while emphasizing the value of biomedical research and promoting careers in science.

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The instruction in this module includes:
Presentation on Neutering
Follow-up lessons on:
Sex Hormones
Reproductive Cancers
Castration of Farm Animals

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Summary of Lesson Content

Objectives

1. Explain why people castrate farm animals and race horses.
2. Understand the effects of testosterone on muscle.
3. Understand the effects of castration on racing performance.
4. Explain the effects of anabolic steroid use in humans.

This lesson includes a reading tutorial, worksheet, and class discussion on the castration of farm animals and race horses. There is also information on the side effects of use of anabolic steroids by human athletes.

Questions to Ask

Do any of you have farm animals or horses? Is the tutorial consistent with your experience with farm animals? In what ways?

Is castration cruelty to animals? Why or why not?

What, if anything, should we do about human athletes who use anabolic steroids? Do you know how athletes are tested to see if they have been taking steroids?

All male cattle in the feed lot are castrated bulls, called “steers”