

# NEW YORK STATE 4-H MEAT GOAT PROJECT FACT SHEET #10



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## ALL ABOUT CASTRATING AND URINARY CALCULI

Male goat (buck) kids that are not being kept as future herd sires are usually castrated so that they will no longer be fertile. The exception to this is suckling kids that are slaughtered before they reach puberty (become sexually mature). Fertile male goats have a strong smell during the breeding season and do unpleasant things like urinate on their beards to impress females. In contrast, a castrated goat (a wether) will not gross out your friends or the general public when you take him to a show. He will also be unable to accidentally breed other goats you own. It is less traumatic to castrate the kid when he is very young. However, some people think that this may make him more susceptible to urinary calculi because his urethra (the tube that carries his urine from his bladder to the opening in his penis) will not develop to its full size and is easier to clog up. Urinary calculi is when the urethra gets blocked up with mineral deposits and urine can not pass through it. If the deposits or “stones” are not somehow passed or dissolved, the kid’s bladder will burst and he will die. Actual scientific studies have not proved that castrating early will tend to make kids more likely to develop urinary calculi as adults. This is probably because factors such as diet, exercise and water intake and quality **have much more influence** on whether a male goat will develop urinary calculi than does the age he is castrated at. Important preventions for urinary calculi that you should practice on your male goat include 1) feeding him a ration with a 2:1 calcium to phosphorus ratio, 2) adding ammonium chloride to his feed at a rate of about 15 lbs. per ton of feed or else giving him about ½ ounce (about a tablespoon) to 1 ounce (2 tsp.) per day depending on his size **unless his feed already contains it**, 3) making sure he gets plenty of exercise and drinks lots of water (keep his water in the shade if hot and unfrozen if cold, always have salt available to him), and 4) checking daily to make sure he is urinating easily without straining and has no blood in his urine.

There are many ways to castrate a goat. **Make sure your kid is protected against tetanus** before you castrate him (remember those vaccines you need to be sure he gets!) and castrate him **at least** a month before you plan to show or market him. Talk to your veterinarian about what sort of pain medication may or may not be recommended depending on the age of your kid. Here are some common methods of castration:

Use an elastrator to cut off blood to the scrotum (the loose sac of skin that holds the testicles). Place a special rubber ring (designed to use on the elastrator) over the 4 prongs of the elastrator. Next, push both testicles down into the scrotum. Pass the testicles and the scrotum (**but not the teats!**) through the rubber ring by opening the “prongs”. Make sure both testicles are descended through the ring before you close the prongs. After closing the prongs, double check that both testicles are still in the scrotum. Then pull the ring off of the prongs so that it squeezes down on the scrotum. The scrotum will “die” from lack of blood and fall off in about 2 weeks. An elastrator is relatively light weight and cheap and easy for a young person to use. It should be done while the scrotum is still small, i.e. from 3 days to 3 weeks of age depending on breed size.

Use a burdizzo clamp (emasculatome) to rupture the spermatic cords - Do one cord at a time. Push the cord to one side of the scrotum and clamp the burdizzo over it being careful to leave the teats above the crushing point. Close the burdizzo and count to 25. You should hear a crunch as you do it. Open the burdizzo and slide it down about a ½ inch to a different location on the same cord (i.e. move it farther away from the goat’s body). Shut the burdizzo on the cord again and count to 25. Now repeat the same procedure on the other side of the scrotum. Never apply the burdizzo over the entire scrotum to attempt to break both cords at one time. You do not want the entire scrotum to gangrene. Instead, crushing the two cords separately will cause the testicles to “atrophy” and gradually shrink and

your wether will be left with a small empty scrotum sac. This method is the best one to use during fly season because it leaves no big open wound. Goats must be between 4 weeks to 4 months of age with 8 to 12 weeks being ideal. Burdizzos are very heavy (order the one for small ruminants rather than the one for calves) and may be difficult for a young person to use. It is not as reliable as the other methods because you can not tell for sure if the cords have been crushed. [“How-to” Slide Show](#) , [“How To” Video](#)

Using a disinfected knife or scalpel - Push the testicles high up into the scrotum. Rinse the scrotum with rubbing alcohol and dry. Cut off the bottom third of the scrotum with a sharp knife. Grasp the testicles and pull them down. Do not let them slip out of your hands and back into the scrotum as this can cause infections. Scrape the cords of the testicles with the flat of your knife or scalpel to gradually cut them or stretch them between two hands until they break. You can also tie them off with fishing line or dental floss and then cut them below the tie off point. You want to avoid cutting the cords abruptly because this will cause more blood loss. Spray the wound with a disinfectant. This method can be done by an experienced goat farmer when the kid is just a few days old. It is best done by a veterinarian if the kid is older than 3 months.

Whatever method you use, you will probably need two people, one person to hold the goat while the other one castrates. The person holding the goat sets the goat on its tail and then stands or kneels behind it. They should then grasp the front legs of the goat and bend them around the back legs at the knees. Hold on to the legs at this joining point and let the other person know when you are ready for them to castrate the goat.

After castrating, spray the scrotum with an antibacterial spray that also repels or kills flies. The kid will be unhappy or depressed for a few hours and then gradually recover. Exercise helps keep any swelling down and hastens recovery so try to avoid confining the goat in a small area. However, be sure to keep him out of the mud and rain.

### Suggested Activities

- 1) Learn to identify bucks, wethers and does. \* This is also a good time to talk about hermaphrodites or intersexes and what their private parts sometimes look like (intersexes sometimes have a round structure protruding from their vagina -from pea to marble sized. They may act “bucky” and have shaggy thick hair on their topline like a buck. If you try to examine their vagina with a speculum, you will often find that their vagina is much too small for the speculum to fit in).
- 2) Draw the reproductive organs of a male goat and label them.
- 3) Learn how to castrate goats with your 4-H group and then do your own buck kid.
- 4) Find out at your local feed stores which feeds contain ammonium chloride.
- 5) Calculate the calcium to phosphorous ratio of your goat’s diet.
- 6) Measure your goat’s water consumption daily for a week by marking off quarts and gallons on his plastic water bucket and compare it to other goats in your 4-H group. Discuss the results with your group. \*

\* Activity is suitable for Cloverbuds