

Urinary Calculi In Bucks and Wethers

One of the biggest nightmares a producer can experience with bucks and wethers is urinary calculi. Goats on heavy grain diets or unbalanced diets are the most susceptible to UC. Market Show wethers are very prone to this condition due to their owners withholding hay or long fiber from their diets trying to give the goat a long, lean appearance rather than allowing them to develop a healthy rumen.

The male anatomy of the urinary tract is rather complicated. There are curves and bends which make stones hard to pass.

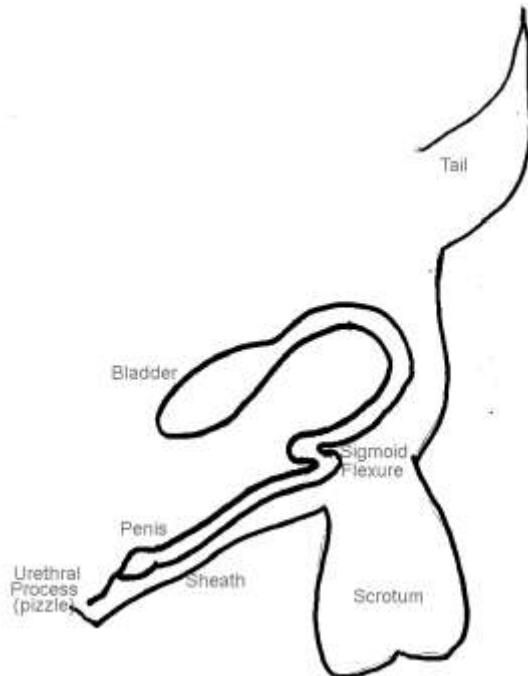


fig 1

As a producer dealing with UC in their goat you hope that the stone (usually multiple stones) have passed through the Sigmoid Flexure and have clogged up at the end of the penis where the urethral process or pizzle begins. If this is the case then you more than likely will be able to successfully deal with removing the blockage. (see fig 1)

When male goats are born the urethral process (pizzle) is folded back and adhered to the penis. It gradually separates under the influence of testosterone. Urinary Calculi are commonly trapped in the urethral process (pizzle), causing obstruction of urine flow. This is particularly true in castrated (wethered) males, where the urethral diameter may be reduced because of loss of the developmental effects of testosterone and the urethral process remains adhered to the preputial mucosa (penis). The urethral process is commonly removed as part of the management of obstructive urolithiasis to restore urine flow.



p1

This photo (p1) shows the typical stance of a buckling or wether stretching and straining to pee. Many producers mistake a buckling or wethers straining as a sign of their being constipated as the goat will both stretch out and tuck their butt up under them trying to find a way to pass urine. By the time we see them doing this stretching and straining they have usually been repeating this action for several hours. All we see is that they are straining and no feces is being passed. This is because they have strained and pushed so much that they have pretty much emptied their intestines of goat berries.

In order to check your buckling or wether enlist a helper to hold the goat in a sitting position. You will need the helper to lean forward so that the goat is slouching. (p2)



p2



p3

Place one hand behind the scrotum approximately where the sigmoid flexure is.(p3) This is easily palpated so try to find the sigmoid flexure on a healthy male. You are going to press the "S" curve of the sigmoid flexure forward towards the end of the sheath. With your other hand gently push back on the sheath so that the end of the penis is exposed. You will need to be prepared to grab the penis and hang on. Until you've had some practice doing this it is best to have a wash cloth or some other cloth rag available to grip the penis with to keep it exposed.



p4

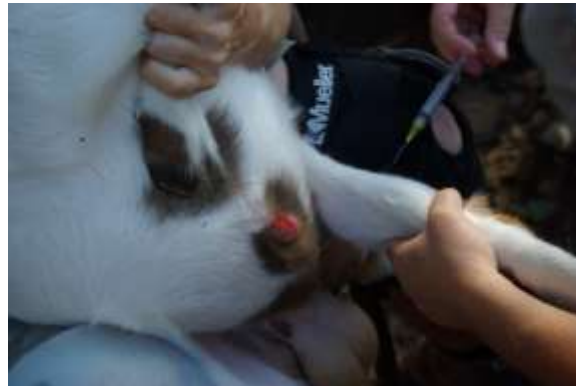


p5

Photo 4 (p4) shows the urethral process (pizzle) still adhered to the penis. Photo five (p5) shows the urethral process (pizzle) that has broken loose due to testosterone level increase in the maturing buckling. If producers will wait until the buck kids are closer to 3-4 months of age before wethering or castrating the goat more than likely will go ahead and break that urethral process loose.



p6



p7

Photo 6 shows a pale and dying urethral process (pizzle). Another day longer and the urethral process (pizzle) would be dark purple or black as the tissue continues to die. To remove this blocked and dying urethral process get some sharp cuticle scissors and in one quick snip remove the urethral process (pizzle) where it joins the end of the goats penis. There will be very little bleeding if done correctly. Be prepared to possibly be sprayed with urine when the pizzle is removed. It won't always happen but more likely than not you will see immediate relief and a urine flow. Make sure that the goat is up-to-date on his tetanus vaccination. If he isn't be sure to give him a tetanus anti-toxin shot. (p7)



p5

Photo 8 shows the removed urethral process (pizzle) as well as stones. This particular pizzle was packed solid with stones. You can see some of the stones looking like tiny grains of sand on the fingertips.

You will need to treat the goat daily with ammonium chloride, mixing the product with juice to help mask the harsh taste and drench them. Dosage for a 75lb male is as follows:

1 teaspoon every 12 hours for 2 days, then
½ teaspoon every 12 hours for 3 days, then
½ teaspoon once a day for 3 days
¼ teaspoon once a daily as a preventative

You would need to consult with your veterinarian for dosages otherwise for a smaller or larger goat.

Bucks without their urethral process won't be as heavily marked during rut season with urine spray. During ejaculation, the urethral process (pizzle) is believed to spray semen on the external uterine orifice. For those producers with a breeding buck that has lost his urethral process (pizzle) there is no evidence that removal of the urethral process impairs fertility in goats according to the reference book "Goat Medicine" written by Mary C. Smith, DVM and David M. Sherman, DVM.

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