

F YOU OWN DAIRY GOATS, chances are you are eventually going to encounter a case of mastitis. Knowing how to diagnose this infection as early as possible, as well as how to treat mastitis in goats, are crucial if you want to maintain the longterm udder and overall health of your doe and to keep your milk production losses to a minimum.

WHAT IS MASTITIS AND HOW DO GOATS GET IT?

Mastitis is simply an inflammation of the mammary gland. It can be clinical, meaning the doe is displaying symptoms, or it can be less obvious as in subclinical cases. Mastitis in goats can be caused by an injury, by stress, or by a bacteria or virus infecting the mammary gland. Weaning kids too abruptly from a doe that is still producing heavily can also cause it. Additionally, mastitis in goats can occur as a result of CAE infection.

HOW DO I KNOW IF MY GOAT HAS MASTITIS?

In clinical cases, both acute and chronic, the udder will become swollen and warm and may be painful to the touch. There may be clots or flakes in the milk as well as discoloration and decreased production. Does may go off their feed and become depressed and possibly have a fever. They may even hold a hind leg up in the air as if they are lame.

In subclinical cases, you may not notice any symptoms at all and the only way to detect that the doe has a mild case of mastitis is though somatic cell counts. I had a Nubian goat that never showed symptoms and was a great producer, but when a routine milk test showed an elevated somatic cell count, I realized she did, in fact, have subclinical mastitis. The easiest way to detect these cases of mastitis is by using the California

Mastitis Test (CMT). This inexpensive testing kit can be purchased through many dairy or veterinary supply stores and is a good way to detect and treat mastitis in goats before the symptoms progress.

HOW TO TREAT MASTITIS IN GOATS:

In cases of subclinical mastitis or when symptoms appear to be relatively mild and limited to the udder itself, the first step is to milk out the affected side of the udder. If this is difficult to do, it is possible to administer two IU of oxytocin to assist in the removal of the milk. Next, infuse the udder with a commercially prepared intramammary infusion product. If using a bovine mastitis medication, half a tube is sufficient.

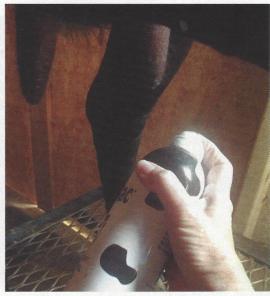
In cases where the infection has spread beyond the udder and is throughout the goat's body, give a common goat mastitis treatment, penicillin, or one of several other antibiotics intramuscularly.

CAN I DRINK THE MILK FROM A **GOAT WITH MASTITIS?**

This is an interesting question and there are several things to consider when deciding whether or not to consume the milk. In subclinical cases, you are unlikely to even know that the goat has mastitis unless you are doing a somatic cell count or CMT regularly. In these cases, drinking the milk is probably not harmful, especially if the milk has been pasteurized. But as my veterinarian, Dr. Jess Johnson of Mountain Rose Veterinary Services states, "That is basically the equivalent to drinking pus/purulent discharge — a collection of white blood cells and bacteria. Pasteurizing it would kill the bacteria but not change the fact that you are drinking pus." While this does not make drinking the milk sound very appealing,







Fight Bac, a chlorhexidine antimicrobial spray for use after milking.

according to a guide to the dairy industry from a Penn State University site, as long as the milk is filtered thoroughly and enters the bulk tank before the animal is treated with antibiotics, it is fine to drink. sites.psu.edu/rclambergabel/tag/mastitis/

HOW CAN I PREVENT MASTITIS IN MY HERD?

Since prevention is the best way to control mastitis in your herd, here are some suggestions you should follow as you learn how to milk a goat that will greatly reduce the incidence of mastitis in your does:

- Keep the barn, milking area, and other areas where the goats are residing as clean as possible.
- Dehorn goats and keep feet trimmed to prevent injury to the udder.
- Keep the hair on udders clipped to avoid an accumulation of dirt and excess moisture.
- Use a wash on the goat teats and udder before milking and a teat dip or spray afterward.
- Milkers should have clean and dry hands.
- Perform CMT on all lactating does at least once a month.
- Wean babies gradually or continue milking once kids are no longer nursing.
- Cull chronically infected does from the herd.

WHAT IS GANGRENOUS MASTITIS?

This is a particularly bad version of mastitis caused by *Staphyloccocus aureus*. This can begin as subclinical mastitis and then becomes acute. Eventually, it causes a toxin to destroy the tissue of the mammary gland and it becomes cold and blue in color. This often results in death within 24 hours but survival is possible with anti-inflammatory drugs, antibiotics, and possibly even udder amputation. I once knew an old Saanen doe who had half of her udder amputated due to this form of mastitis. She went on to freshen

several more times and produced an abundant supply of milk from the remaining half of her udder!

WHAT IS HARD UDDER?

Hard udder, or hard bag, is another name associated with mastitis in reference to the lumps or scar tissue that occur over time. Once this is observable, it means that the mastitis has gone undetected over time. Hard udder is often used to describe viral mastitis caused by CAE.

WHAT IS CONGESTED UDDER?

Congested udder is not the same as mastitis and is not as serious, either. It is not an infection but rather an issue with the teat not allowing milk to flow. It often occurs when the doe produces so much milk, so quickly, that it becomes overly full. It is uncomfortable but is relatively easy to treat and fix. Cutting back on grain, using hot compresses, and helping to express the excess milk are good remedies. The milk from a congested udder is perfectly fine to drink.

Mastitis is common among dairy goats so keeping a close eye on things and responding quickly when problems do occur is the best bet to ensure the long-term health and top production of your milking does.

SOURCES

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