



**MASTITIS DISEASE OF FARM ANIMALS, ITS TYPES, TREATMENT AND PREVENTION  
OF MASTITIS**

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**Abstract**

Udder mastitis is the number one disease that occurs in dairy cows. The milk of sick animals becomes curdled, it is impossible to drink milk. Purulent mastitis of cows is caused by an increase in the size of the infected part of the udder.

**Keywords:** purulent mastitis, acute serous mastitis, fibrous mastitis, lyapis solution, iodine solution.

**Introduction**

Mastitis is currently a disease of dairy cows and is the main problem for livestock farmers. Mastitis causes great economic damage to this industry. Animal milk is curdled and cannot be drunk. On some farms, up to 35 percent of animals can get mastitis. Previously, sick cows treated only with antibacterial therapy, but the disadvantage of antibiotics is that they accumulate in animal cells. If antibiotics found in milk, it is unfit for consumption. Today, complex and faster methods of mastitis treatment have appeared.

Mastitis is an inflammation of the cow's mammary glands. The causative agents are some types of staphylococci or streptococci. The main reasons why cows get mastitis are infection of the genitals, dampness of the bottom, injury to the udder, udder, violation of milking rules, and dirty conditions in the barn.

The development of the disease influenced to a certain extent by immunity, season, age, and physiological state of the animal. Mastitis often occurs in large farm cows that are milked on machines.





If the place where the animal is dirty, germs can get to the udder of the cow through the skin and dirt. For some time after milking, the teats can pass the germ into the udder, so before and after milking, the teats wiped with a disinfectant, and the cow does not lie down immediately. It need to grow.

The following symptoms indicate the onset of mastitis:

- Breast redness;
- There are small mixtures of curd peel in milk;
- The volume of milk production has decreased significantly.

In some forms of mastitis, the color of the udder changes and spots appear on the skin. Over time, other symptoms of the disease appear:

- The groin or individual lips swell, the temperature rises;
- There is pain during palpation, the presence of seals;
- There is an increase in the lymph nodes;
- Sticky white secretion comes out of the gland.

The general condition of the cow changes. It loses its appetite, it is a bit sluggish and breathing becomes faster its pulse increases.

The objective indicator of the health of the cow's udder is the number of somatic cells in the milk. Somatic cells are a standard component of quality milk. Somatic cells in cow's milk contain leukocytes and epithelia of vesicles, mammary glands have milk-producing ducts. In 1 ml of milk of a clinically healthy cow, there are on average 250,000 somatic cells, while in the case of mastitis, it reaches 950,000. The milk of cows suffering from subclinical mastitis has low acidity, the milk has a weak alkaline reaction, the content of chlorides, albumins, and globulins increases, and cell elements, in particular, leukocytes, increase several times.

There are the following types of the disease:

- Subclinical mastitis;
- Acute serous mastitis;
- Catarrhal mastitis;
- Purulent mastitis;
- Clinical mastitis;
- Hemorrhagic mastitis;
- Fibrous mastitis;
- Purulent-catarrhal mastitis;
- Chronic mastitis.

Acute serous mastitis. Occurs in cows after childbirth. In this case, the cow's udder becomes red, swollen and swollen. The diseased part of the mammary gland becomes compressed and warm. Mastitis of a calving cow reduces the milk yield. The milk is liquid, non-homogeneous and may contain white clots.

Purulent mastitis. Purulent mastitis caused by an increase in the size of the infected part of the udder in cows. It hurts and the temperature increases. Due to the addition of pus, the milk becomes watery,



salty and yellowish in color. The animal becomes weak and does not feed. The body temperature of a cow can reach 40-41 degrees.



**Fibrous mastitis.** Fibrous mastitis in cows characterized by enlargement of the diseased area of the udder. Mastitis in cows determined by palpation. The mammary glands are hard when palpated and the udder hurts. Body temperature can rise to 40-41 degrees. The cow loses its appetite. From the first day of the disease, the milk decreases sharply. Due to the presence of pus in the milk, it acquires a yellow-green color. Lactation stops 3 days after the onset of the disease. During the milking process, only whey and a little pus come out. Even with modern treatment, the process of milk secretion not completely restored. In 95% of cases, mastitis in cows takes a chronic form. In this case, the fat content of the milk decreases. The density of the milk composition becomes like a mixture of different liquids, curds, and clots found in it.

Sometimes the appearance of the milk is normal, but when you feel the cow's udder, you can feel its hardness, which indicates the presence of chronic inflammation in the mammary gland. In latent mastitis, the milk produced decreases, its biochemical composition changes, and the function of the mammary gland is disturbed.

## **Treatment**

Mastitis spreads to the cow's udder, but also to the whole body. Therefore, the treatment of mastitis in cows directed to the implementation of infectious processes with the help of antibiotics, as well as



improving the general condition of the animal, increasing its immunity, and preventing relapses of mastitis. It is advisable to use complex therapy.

In case of acute mastitis, it is necessary to rid the mammary glands of bacteria. For this, it is necessary to milk the cow every two hours. To mobilize the protective force and to induce hyperemia (blood circulation), the affected part of the udder should be washed with cold water 5 times a day. It is recommended to keep it watered with After treatment, it is necessary to milk the cow well and massage her udder towards the teat tip.



Today, mastitis in cows treated with a suspension of antibiotics, such as septogel, mastisan, and mastilex, injected into the udder through the milk ducts. The drug quickly enters the cells and accumulates in them within a few days. However, in chronic suppurative mastitis, the growth of connective tissue blocks the milk ducts and atrophy of the udder parenchyma progresses, and treatment with antibiotics does not work well. The diseased mammary glands do not regenerate and cause microbes to spread throughout the cow's udder. In such cases, it is advisable to inject 200 ml of 1% lyapis solution or 100 ml of 5% iodine solution into the mammary glands.

The following therapeutic measures are also useful for sick animals:

- Rubbing antibacterial oils;
- Applying bandages and compresses with medicinal products;
- Udder massage before and after milking;
- Milking only by hand 4 times a day;
- Wash the milk ducts with antibiotic solutions;
- Wash the breast with warm water 5-6 times a day.





It treated without antibiotics: 40 ml of 2% solution of novocaine, 60 ml of 40% glucose, and 60ml of calcium borogluconate mixed and heated to 38 °. The solution should be injected into the peritoneum in the area of the open fossa 3 times every 48 hours.

## **Prevention of mastitis**

Animal owners should milk to the end in accordance with sanitary norms. After milking, teats disinfected with iodine chloride 1% solution.

## **Summary**

Symptoms of mastitis in cows and drugs for treatment are famous for every cow owner. Milk is a unique product - it can consume raw and many dairy products can be prepared from it. Animal husbandry requires effort and money to monitor the animal's health, nutrition, and living conditions. Only then will he have high-yielding cows on his farm.

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